

STATE OF NEW HAMPSHIRE
BEFORE THE
NEW HAMPSHIRE PUBLIC UTILITIES COMMISSION

DOCKET NO. DE 19-057
REQUEST FOR PERMANENT DELIVERY RATES

SUPPLEMENTAL TESTIMONY OF
ANN E. BULKLEY

Return on Equity

On behalf of Public Service Company of New Hampshire
d/b/a Eversource Energy

July 16, 2020

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SUPPLEMENTAL TESTIMONY OF ANN E. BULKLEY
PETITION OF PUBLIC SERVICE COMPANY OF NEW HAMPSHIRE
d/b/a EVERSOURCE ENERGY
REQUEST FOR PERMANENT RATES

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Docket No. DE 19-057

I. INTRODUCTION

Q. Please state your name, affiliation, and business address.

A. My name is Ann E. Bulkley. I am a Senior Vice President of Concentric Energy Advisors, Inc. (“Concentric”), located at 293 Boston Post Road West, Suite 500, Marlborough, Massachusetts 01752.

Q. On whose behalf are you submitting this testimony?

A. I am submitting this supplemental testimony before the New Hampshire Public Utilities Commission (“Commission”) on behalf of Public Service Company of New Hampshire (“PSNH” or the “Company”), d/b/a Eversource Energy (“Eversource”).

Q. Did you previously submit testimony in this proceeding?

A. Yes. I submitted Direct Testimony and Rebuttal Testimony regarding the appropriate Return on Equity (“ROE”) and capital structure for PSNH in this proceeding.

II. PURPOSE AND OVERVIEW OF TESTIMONY

Q. What is the purpose of your Supplemental Testimony?

A. As directed by the Commission in Order No. 26,363, this Supplemental Testimony provides updated information on the return on equity and capital structure for PSNH. In addition, I provide an update on capital market conditions that have affected the investor required return.

Q. Please summarize your Supplemental Testimony.

A. This Supplemental Testimony provides an update on current market conditions and the effect of those conditions on the risk perceived by investors in holding equity. In addition, this Supplemental Testimony updates the results of my ROE estimation models for market conditions through May 2020. This Supplemental Testimony demonstrates the following:

i) Capital market conditions have changed dramatically since the Opposing Witnesses¹ filed their testimony in December 2019 and since my Rebuttal Testimony was filed on March 3, 2020.

ii) Both the Discounted Cash Flow (“DCF”) model and the Capital Asset Pricing Model (“CAPM”) are showing higher return estimates based on market data as of June 30, 2020, than at the time the Opposing Witnesses filed their testimony and

¹ The Opposing Witnesses include Dr. J. Randall Woolridge on behalf of the Commission Staff, Dr. Pradip K. Chattopadhyay on behalf of the Office of Consumer Advocate, and Steve W. Chriss on behalf of Walmart, Inc.

1 recommendations in December 2019. These higher results are consistent with other
2 market indicators suggesting that the cost of equity has increased since that time.

3 iii) Although government bond yields have decreased due to actions of the Federal Reserve
4 and the U.S. Congress to provide unprecedented support for the U.S. economy during
5 the COVID-19 pandemic, these lower yields on U.S. Treasury bonds are not the sole
6 determining factor in setting the authorized ROE for PSNH in this proceeding. Other
7 market indicators suggest that the cost of equity has risen, offsetting the effect of lower
8 interest rates in the valuation. These indicators include heightened volatility in equity
9 and bond markets; much wider credit spreads between government and utility bonds;
10 and significantly higher Beta coefficients (the measure of risk in the CAPM) from both
11 Bloomberg and Value Line.

12 The totality of these updates indicates that there is greater risk to equity investors in the
13 market today than when the Opposing Witnesses filed their testimonies and I provided
14 Rebuttal Testimony. These circumstances create strong affirmation for the ROE I am
15 recommending in this case. Furthermore, this evidence demonstrates that credit rating
16 agencies remain concerned about the financial metrics relating to utilities.

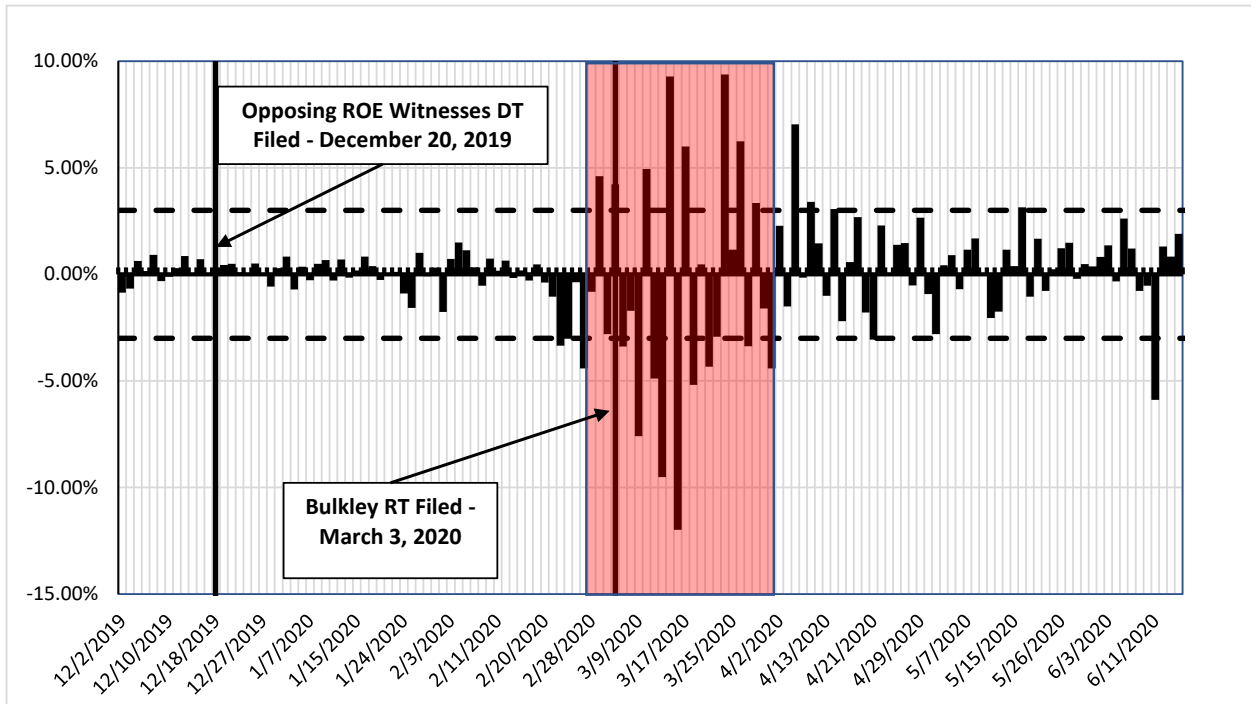
17 **III. CAPITAL MARKET CONDITIONS**

18 **Q. Please summarize the changes in capital market conditions since the filing of your**
19 **Direct and Rebuttal Testimonies.**

20 A. As discussed in my Direct and Rebuttal Testimonies, in addition to the analytical results of
21 the ROE estimation models, it is also necessary to evaluate current market conditions. The

1 evaluation of market conditions is critically important in determining how the assumptions
2 used in the ROE estimation models are being affected by market conditions and whether
3 the results of the models are reasonable when placed in context with market conditions.
4 Since the preparation of the analyses that are presented in my Direct Testimony, market
5 conditions have been extremely volatile, creating increased risk to investors in equities.
6 There has been very significant volatility in both the prices of utility stocks and the yields
7 on Treasury bonds that have affected the results of the models overall, and in very
8 significant ways over the short time period since the beginning of the current global health
9 pandemic. As shown in Figure 1 below, the S&P 500 Index swung more than 3 percent in
10 16 of the 22 trading days in March of 2020.

Figure 1: S&P 500 Index – Daily Price Change – December 2019 – June 16, 2020²



Q. Have you reviewed any other indicators that measure volatility in the financial markets?

A. Yes, I reviewed two other measures of volatility in financial markets: (1) the CBOE Volatility Index (“VIX”), and (2) the U.S. Treasury Note Volatility Index (“TYVIX”). The VIX measures investors’ expectation of volatility in the S&P 500 over the next 30 days. The TYVIX, also published by CBOE, measures investors’ expectation of volatility in the 10-year Treasury Bond over the next 30 days. As shown in Figure 2 below, the VIX and TYVIX have recently reached levels not seen since the Great Recession of 2008-2009. For example, the VIX was 82.69 on March 16, 2020. The VIX has not reached 80.00 since November of 2008. In fact, the highest level reached during the Great Recession of 2008-

² Source: S&P Global Market Intelligence.

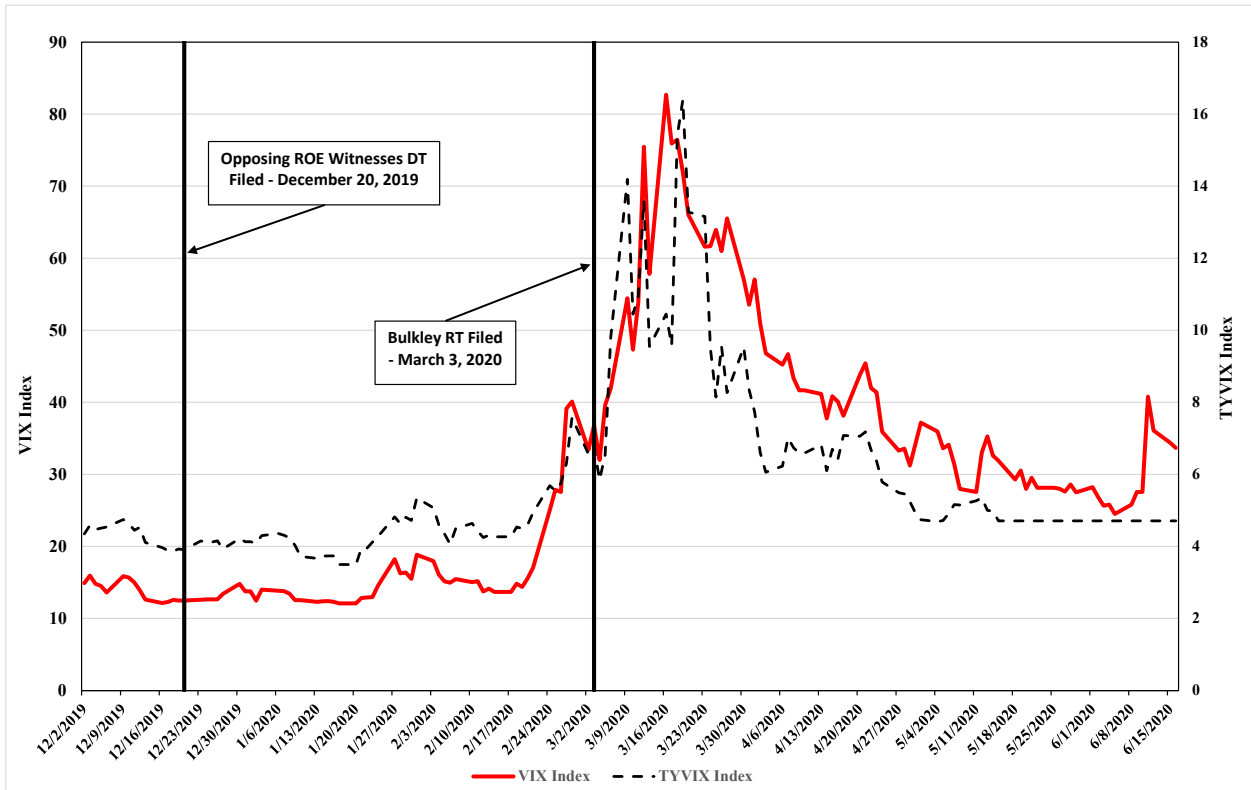
1 2009 was 80.86.³ Similarly, the TYVIX was 16.39 on March 19, 2020. Since at least
2 January 2003, the TYVIX has never exceeded 15.00, including during the Great Recession
3 of 2008-2009.⁴ These indicators show that COVID-19 has caused a dramatic increase in
4 the level of uncertainty and volatility in the market, which exceeded what occurred during
5 the Great Recession of 2008-2009.

6 Furthermore, as shown in Figure 2 below, while the VIX has declined in April and May,
7 this measure of volatility still remains well above levels seen prior to COVID-19 in January
8 and February. It is important to view the declines in the VIX in the context of the
9 unprecedented response by the Federal Reserve and Congress. As discussed in more detail
10 below, the Federal Reserve's corporate bond buying programs are providing liquidity to
11 bond markets and therefore reducing some of the uncertainty that was driving the volatility
12 seen in March. However, there is still much uncertainty regarding the near-term effect of
13 COVID-19 on the economy and the financial markets, which is why the VIX is still above
14 its long-term average.

³ *Ibid.*

⁴ *Ibid.*

Figure 2: CBOE VIX and TYVIX – January 2, 2003 – June 16, 2020⁵



Q. Have you reviewed any indicators that measure the uncertainty in the global economy related to COVID-19?

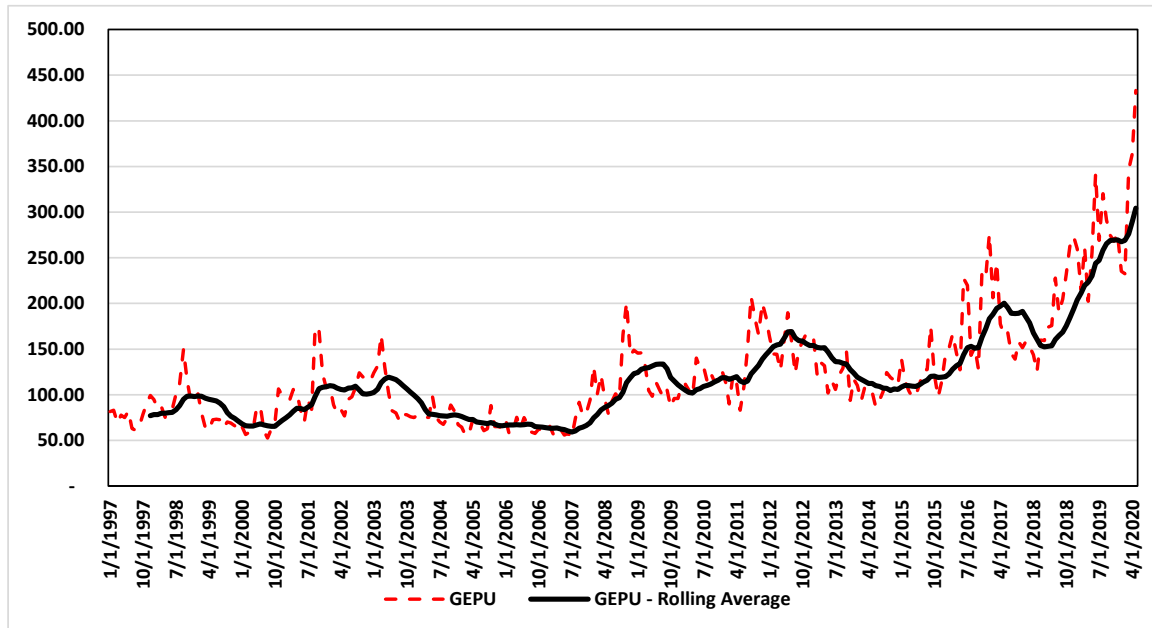
A. Yes, I have. I reviewed the global economic policy uncertainty index developed by economists Scott Baker, Nicholas Bloom and Steven Davis. The index is a GDP-weighted average of the economic policy uncertainty index of 21 countries. The economic policy uncertainty index measures the frequency that articles in publications of a country discuss economic policy uncertainty.⁶ As shown in Figure 3 below, uncertainty regarding global economic policy is at its highest level since at least 1997, with the largest increase occurring

⁵ Source: Bloomberg Professional.

⁶ Source: Economic Policy Uncertainty: <https://www.policyuncertainty.com/index.html>.

in the last two years as a result of the escalating trade dispute between the U.S. and China and the spread of COVID-19.

Figure 3: Global Economic Policy Uncertainty Index



Q. Have rating agencies commented on the effects of current market conditions on regulated utilities?

A. Yes. Standard & Poor's ("S&P") recently downgraded the outlook on the entire North American utilities sector. S&P indicated that 25 percent of the industry was previously on a negative outlook or CreditWatch with negative implications. Also, S&P expected that COVID-19 would increase pressure on utilities and that a recession would lead to an increasing number of downgrades and negative outlooks.⁷

⁷ Standard & Poor's Ratings Direct, COVID-19: The Outlook for North American Regulated Utilities Turns Negative, April 2, 2020.

1 **Q. What steps have the Federal Reserve and Congress taken to stabilize financial**
2 **markets and support the economy?**

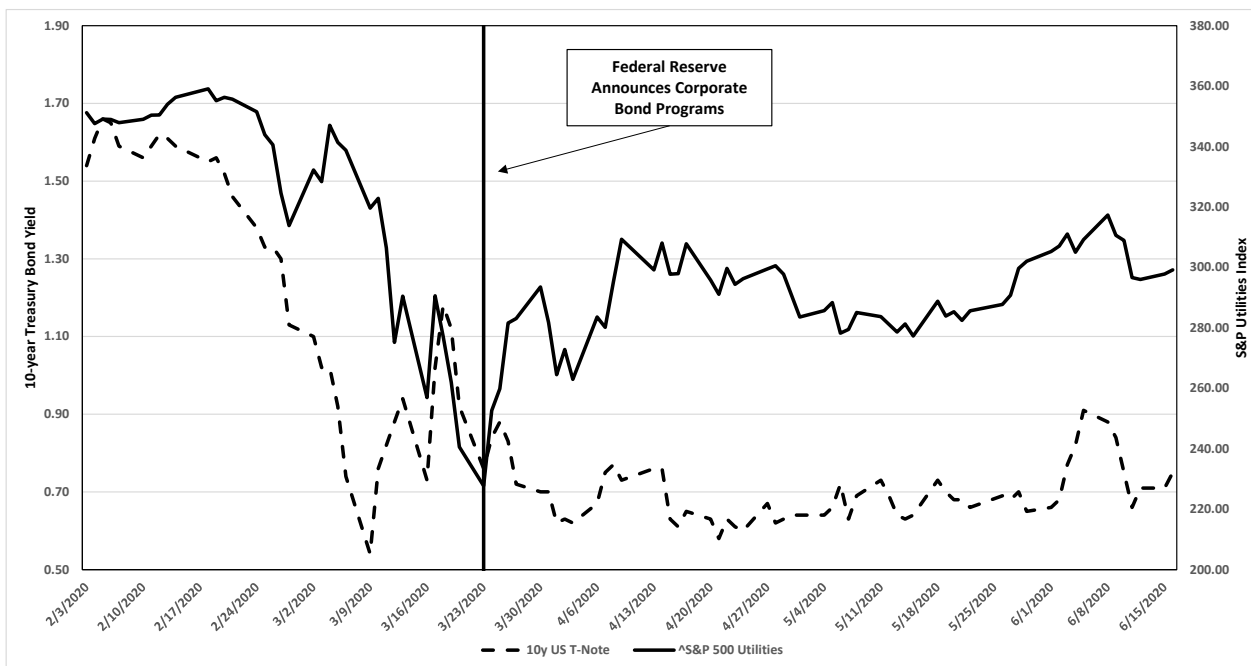
3 A. On March 23, 2020, the Federal Reserve began expansive programs to support credit to
4 large employers; the Primary Market Corporate Credit Facility (“PMCCF”) to provide
5 liquidity for new issuances of corporate bonds, and the Secondary Market Corporate Credit
6 Facility (“SMCCF”) to provide liquidity for outstanding corporate debt issuances. Further,
7 the Federal Reserve supported the flow of credit to consumers and businesses through the
8 Term Asset-Backed Securities Loan Facility (“TALF”). Additionally, on March 27, 2020,
9 the Coronavirus Aid, Relief, and Economic Security (“CARES”) Act was signed into law
10 as a large fiscal stimulus package aimed at also mitigating the economic effects of the
11 coronavirus. Although these expansive programs have provided for greater price stability,
12 as shown in Figure 2, both the VIX and the TYVIX remained well above long-term
13 historical normal levels.

14 **Q. How has the market responded to the unprecedented intervention by the Federal**
15 **Reserve?**

16 A. The uncertainty surrounding the spread of COVID-19 resulted in a flight-to-quality as
17 investors purchased safer assets such as U.S. Treasuries due to increased fears of a
18 recession. This has been increasingly evident over the past few months as investors
19 responded to news of the number of COVID-19 cases outside of China and the economic
20 effects of the policies enacted to contain COVID-19. However, as discussed above, in late
21 March, the Federal Reserve began expansive programs with the purpose of maintaining
22 access to capital markets for corporate borrowers. These unprecedented programs resulted
23 in lower borrowing costs for corporate firms and thus continued access to the capital

needed to offset the economic effects of COVID-19. As a result, interest rates have remained low and stability has been restored in the corporate bond market. For investors, this led to allocating more funds to equities. As shown in Figure 4 below, while the yield on the 10-year Treasury Bond has remained relatively stable and in the range of 0.58 percent to 0.91 percent between March 23, 2020 and June 16, 2020, the S&P Utilities Index increased drastically following the Federal Reserve's announcement on March 23, 2020. Therefore, the policies of the Federal Reserve, while resulting in stability in the bond markets, have resulted in higher equity prices as investors search for returns given the current low interest rate environment.

Figure 4: 10-year U.S. Treasury Bond Yield and S&P Utilities Index⁸



⁸ Source: S&P Global Market Intelligence.

1 **Q. What are your conclusions regarding the recent market volatility and its effect on the**
2 **cost of equity for PSNH?**

3 A. As discussed above, investors responded to the spread of COVID-19 by divesting higher-
4 risk assets and purchasing lower-risk assets such as U.S. Treasury bonds. However, while
5 utilities have historically been “safe haven” investments in times of market volatility, in
6 the current market conditions, this dynamic has not held true. Instead, utility stocks have
7 traded more like the market overall, demonstrating greater risk to holding equity in these
8 companies. For example, the Beta for utilities, which measures the risk of utilities
9 compared to the overall stock market, has increased substantially from 0.59 to Bloomberg’s
10 0.81, which is based on the most current data.

11 The constant news regarding the spread of COVID-19 and its economic effects has resulted
12 in unprecedented volatility in financial markets as investors have rotated in and out of
13 various asset classes, including utilities, responding to both positive and negative
14 developments.

15 Thus, although the policies of the Federal Reserve have stabilized the corporate bond
16 market, the result has been an increase in equity prices as investors have had to move along
17 the risk spectrum in search of returns.

18 The ROE estimation models filed in my Direct and Rebuttal Testimonies and the Opposing
19 Witnesses testimonies rely on market data that preceded the global pandemic and is no
20 longer representative of the cost of equity for the time period that PSNH’s rate will be in
21 effect.

1 As discussed below, I have updated my ROE estimation models to rely on recent market
2 data, but this data must be interpreted with extreme caution. For example, the Constant
3 Growth DCF model relies on the average share prices for the proxy companies, which have
4 been extremely volatile in the last several months and are likely currently influenced by
5 the recent policies of the Federal Reserve.

6 There are two key factors that must be considered when determining the ROE for PSNH
7 using my updated ROE model results: (1) current and prospective market conditions should
8 be considered when determining where within the range of results PSNH's ROE should be
9 set; and (2) where possible, it is necessary to consider projected market data in each of the
10 models which reflect economists' expectations for the market conditions that will prevail
11 during the period that PSNH's rates will be in effect.

12 IV. UPDATED RESULTS

13 **Q. Have you updated the results of the ROE estimation methodologies and capital**
14 **structure analyses that you presented in your Direct Testimony?**

15 A. Yes. I updated the results of each of the ROE estimation methodologies presented in my
16 Direct Testimony with market data through May 29, 2020. I also updated the capital
17 structure analysis presented in my Direct Testimony through the first quarter of 2020.

18 **Q. Are the methodologies you relied on consistent with those outlined in your Direct**
19 **Testimony?**

20 A. Yes.

1 **Q. How have the recent market conditions that you discussed above affected the results**
2 **of the ROE estimation models?**

3 A. Market conditions have affected both the DCF and CAPM models. The revaluation of
4 utility stocks in the market as a result of COVID-19 affected the assumptions used in the
5 DCF and the volatility in the market and the Federal Reserve's intervention in the market
6 affected the CAPM.

7 **Q. Please discuss the effect of recent market conditions on the DCF.**

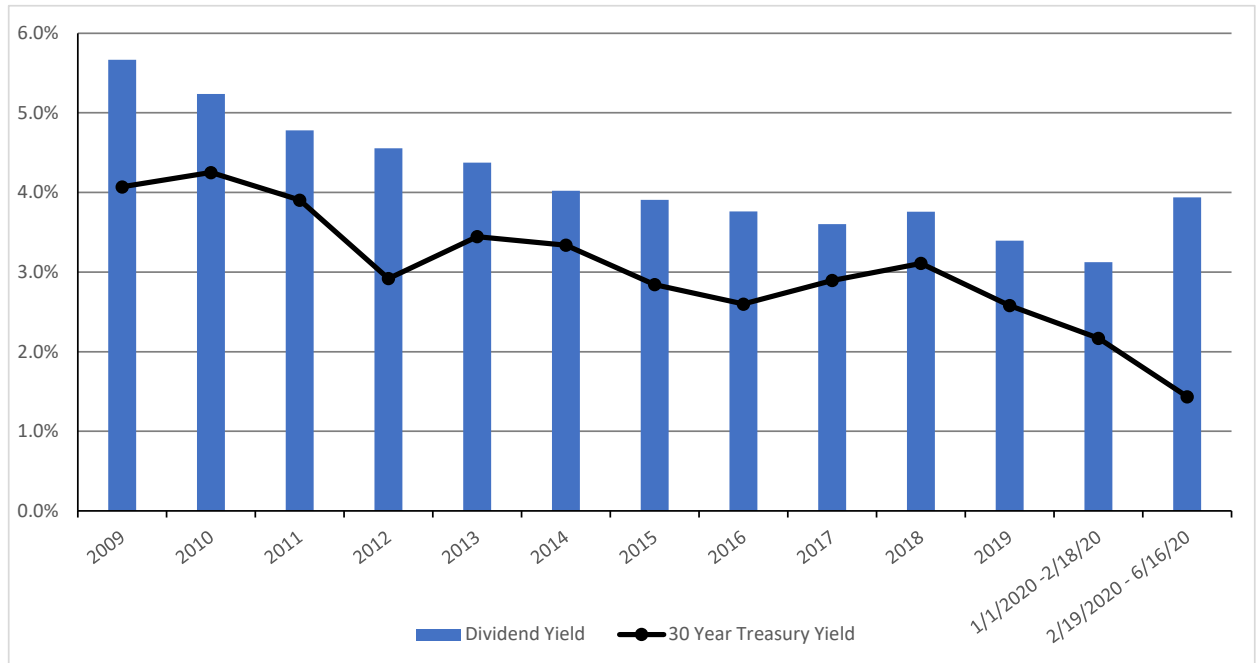
8 A. The effect of recent market conditions is evidenced in the dividend yield for the proxy
9 group companies. As shown in Figure 5 below, the dividend yield for the proxy group was
10 well below historical levels prior to the market correction caused by COVID-19. In
11 response to the recent market volatility, stock prices of the proxy group companies have
12 declined, resulting in an increase in dividend yields. For comparison purposes, at the time
13 that the Opposing Witnesses filed testimony in December 2019, the dividend yield for my
14 proxy group was 3.20 percent and the dividend yield for Dr. Woolridge's proxy group was
15 3.15 percent. As shown in Attachment AEB-Supplemental-2, the current dividend yield
16 for my proxy group, is 4.13 percent,⁹ an increase of 93 basis points. Furthermore, the
17 average growth rate in December 2019 was 4.36 percent.¹⁰ As shown in Attachment AEB-
18 Supplemental-2, the average growth rate for my proxy group has increased to 4.82 percent,
19 an increase of 46 basis points. In total, this represents an increase of 139 basis points. This

⁹ Based on a 30-day average stock price as of May 29, 2020.

¹⁰ Attachment JRW-9, pages 5 and 6. The average is calculated for the projected EPS growth rates reported by Value Line, Yahoo and Zacks for the Bulkley Proxy Group.

demonstrates that since the filing of the Opposing Witnesses testimony, the cost of equity has increased.

Figure 5: Proxy Group Dividend Yields – January 2009 – June 16, 2020



Q. Why is this important?

A. It is important to understand the drivers in each of the models and how the results are affected by those drivers. In my updated analysis, I present 30-, 90- and 180-trading day average stock price scenarios. The 30- and 90-day averages demonstrate the effects of the recent market conditions since COVID-19. The 180-day average also includes this data; however, that average encompasses data prior to the change in market conditions.

1 **Q. Why have you included the 180-day averages if those averages do not reflect the**
2 **changes in current market conditions, which was the purpose of the Commission's**
3 **request for updated information?**

4 A. I recognize that the 180-day scenario does not isolate the effects of the recent market
5 conditions for the Commission, however I have updated this scenario because it was
6 included in my Direct Testimony. If the Commission's interest relates to the effect of
7 current conditions on the cost of equity, the 180-day scenario should receive less weight,
8 since it includes trading days prior to the COVID-19 pandemic, when utility stocks were
9 priced at an all-time high. Charles Schwab, who recently downgraded the utility sector to
10 underperform, noted that:

11 [h]owever, amid the drop in stocks in February and March, the
12 historically low-equity-beta Utilities sector simply didn't play its
13 traditional relative safe-haven role. The sharp drop in interest rates
14 would normally be expected to provide relative support to this sector,
15 which relies on high levels of debt and tends to pay relatively high
16 dividends—often an attraction for investors when yields on fixed
17 income investments are low. However, there were unique
18 circumstances that outweighed these historical relationships.
19

20 For one thing, because some investors had already been reaching for
21 yield before the crisis began, the high-dividend-paying Utilities sector
22 had been bid up to record-high valuation levels. Even
23 underperformance year-to-date hasn't fully reversed those relatively
24 high valuations, so we're not confident the sector will return to its
25 defensive roots if markets sell off again.
26

1 Additionally, with improving prospects for economic growth, longer-
2 term yields have begun to nudge higher, which further reduces the
3 sector's attractiveness. The fundamentals of the sector remain relatively
4 strong, owing to still-low interest rates supporting capital expenditure
5 needs and stability of earnings growth expectations. However, the
6 sector's short-term relative performance has lagged amid a turn towards
7 more cyclical sectors. Therefore, we are underweighting Utilities,
8 despite expected bouts of volatility in the overall market.¹¹

9 As noted by Charles Schwab, because the high valuations of utility stocks have not
10 reversed, analysts expect that utility stock prices will not rebound even if the market were
11 to experience additional corrections. Therefore, the 180-day stock prices reflect an
12 overvaluation that investors do not expect to continue and therefore should not be
13 considered in the determination of the cost of equity.

14 **Q. Please explain the effects of market conditions on the CAPM.**

15 A. As mentioned previously, the market experienced and continues to experience significant
16 volatility as a result of COVID-19. In such circumstances utilities have historically
17 represented safe-havens. However, the historically high valuations of utilities prior to the
18 pandemic resulted in investors searching for other alternatives once the economic effects
19 of COVID-19 became more apparent. Thus, utility stocks have traded more like the overall
20 market. This has resulted in an increase in the Beta coefficients for utility stocks.

21 **Q. How do the current Beta coefficients compare with the Beta coefficients used in the**
22 **intervenor testimony in December 2020?**

23 A. The current Beta coefficients have increased substantially. In December 2020, the average
24 Beta coefficient for my proxy group was 0.59 whereas currently the Beta coefficients for

¹¹ Charles Schwab, Utilities Sector Rating: Underperform, June 18, 2020.

1 my proxy group using Value Line are 0.69 and based on Bloomberg's more current data,
2 0.81.

3 **Q. Is that increase included in your updated CAPM analysis?**

4 A. It is only partially captured in the results through the end of May. As discussed in my
5 Direct Testimony, I relied on both Bloomberg and Value Line for estimates of the Beta
6 coefficients for the proxy group companies. Bloomberg calculates Betas on an ongoing
7 basis, while Value Line reports on the electric utilities industry in three segments over time.
8 Value Line reported its update for the companies in the East region on May 15, 2020, which
9 captured the effects of volatility on those stocks. The remaining company reports were not
10 issued as of the end of May. The Central region was issued as of June 13, 2020 and the
11 West Region is not scheduled to be issued until late July. Therefore, only one region of
12 Value Line's updated market data was updated to reflect the effects of market conditions
13 as of the analytical period used in my update.

14 **Q. How did the Betas change in the updates for the companies that Value Line covers in**
15 **the East region?**

16 A. The Betas increased significantly. As shown in Figure 6 below, the average Beta for this
17 segment increased from 0.53 to 0.87. As shown in Attachment AEB-Supplemental-8, the
18 updated Betas for the Value Line East region are more in line with the Bloomberg Betas
19 used in my updated analyses.

Figure 6: Comparison of Value Line Betas

Value Line Electric East	Ticker	May Value Line Beta	February Value Line Beta
Avangrid, Inc.	AGR	0.80	0.40
Dominion Resources, Inc.	D	0.80	0.50
Duke Energy Corporation	DUK	0.85	0.45
Consolidated Edison, Inc.	ED	0.75	0.40
Eversource Energy	ES	0.90	0.55
Exelon Corporation	EXC	0.90	0.65
FirstEnergy Corporation	FE	0.85	0.60
NextEra Energy, Inc.	NEE	0.85	0.50
Public Service Enterprise Group, Inc.	PEG	0.90	0.60
PPL Corporation	PPL	1.05	0.65
Southern Company	SO	0.90	0.50
Average		0.87	0.53
Date		5/15/2020	2/14/2020

Q. Has Value Line updated the Betas for other regions?

A. Yes. Value Line updated the Betas for the Central region in June. Because my analysis uses prices as of the end of May, the Betas for the Central region were not incorporated into my analysis. However, as shown in Attachment AEB-Supplemental-8, the Betas for the Central region have also increased from 0.57 to 0.88. Furthermore, Value Line will report an update to the West region in July. The last publication for the West region was April 24, 2020. Although this publication date was after the start of the pandemic, Value Line's analytical results may not incorporate much data from the current market conditions due to the production schedule. It is reasonable to expect that the July report would demonstrate a similar increase in Betas as has been seen in the East and Central regions.

Q. What is your conclusion about the CAPM results using the Value Line Betas?

A. Based on the reporting schedule for Value Line, the effects of market conditions are lagging and are not reflected in the analysis as of May 29, 2020. Therefore, since the Bloomberg

1 Betas are updated to reflect how current market conditions have affected each of the proxy
2 group companies, it is more appropriate to rely on the CAPM results using the Bloomberg
3 Betas.

4 **Q. Are there other assumptions that have been affected by recent market conditions?**

5 A. Yes. The yield on the 30-year Treasury bond is likely to be understated by steps taken by
6 the Federal Reserve and Congress to stabilize the markets.

7 **Q. Please summarize the results of your updated analysis.**

8 A. As shown in Figure 7 below and in Attachment AEB-Supplemental-1 through Attachment
9 AEB-Supplemental-7, I have updated the DCF and CAPM analyses presented in my Direct
10 Testimony to include market data through May 29, 2020. The mean DCF results using
11 EPS growth rates range from 9.32 percent to 9.53 percent. Using the high growth rate
12 scenario, the DCF results range from 9.34 percent to 10.02 percent. When both EPS and
13 the retention growth rate are relied upon, the high end of the range is 10.31 percent. For
14 CAPM, the results range from range from 9.54 percent to 11.32 percent.

Figure 7: Summary of Analytical Results¹²

<i>Constant Growth DCF using Earnings Growth Rates</i>			
	Mean Low	Mean	Mean High
30-Day Average	9.25%	9.43%	10.02%
90-Day Average	9.29%	9.32%	9.56%
180-Day Average	9.66%	9.53%	9.34%
<i>Constant Growth DCF using Earnings and Retention Growth Rates</i>			
	Mean Low	Mean	Mean High
30-Day Average	8.27%	9.04%	10.31%
90-Day Average	9.15%	8.86%	9.85%
180-Day Average	9.05%	8.63%	9.62%
<i>CAPM</i>			
	Current Risk-Free Rate (1.33%)	Q3 2020 – Q3 2021 Projected Risk-Free Rate (1.68%)	2022-2026 Projected Risk-Free Rate (3.00%)
Bloomberg Beta	11.00%	11.06%	11.32%
Value Line Beta	9.54%	9.65%	10.07%
<i>Treasury Yield Plus Risk Premium</i>			
	Current Risk-Free Rate (1.33%)	Q3 2020 – Q3 2021 Projected Risk-Free Rate (1.68%)	2022-2026 Projected Risk-Free Rate (3.00%)
Risk Premium Analysis	9.06%	9.22%	9.82%
Risk Premium Mean Result	9.37%		

Q. What are your conclusions regarding the results of your updated ROE analyses?

A. All of the market indicators discussed in my Supplemental Testimony demonstrate that there is increased risk in the financial markets as a result of the economic effects of COVID-19, which results in an increase in the investor-required return on equities. The market assumptions used in the CAPM better reflect these risk factors, which suggests it is

¹² The analytical results included in Figure 7 reflect the results of the Constant Growth DCF analysis excluding the results for individual companies that did not meet the minimum threshold of 7.00 percent. Based on the low-end outlier test, scenarios with lower growth rates can result in a higher ROE than scenarios that rely on higher growth rates.

1 appropriate to place greater weight on the results of the CAPM analysis. In addition, while
2 it is also true that the share prices of utilities have declined as a result of COVID-19, the
3 valuations of utilities are still well-above long-term averages. Moreover, as shown in
4 Figure 4, the share prices of utilities have increased since the Federal Reserve's
5 unprecedented intervention to stabilize bond markets. As a result, the DCF model is still
6 likely understating the cost of equity for the period that PSNH's rates will be in effect.

7 While I recognize that short-term averages of the current the risk-free rate used in the
8 CAPM have also been affected by the intervention of the Federal Reserve, the use of
9 investors' expectations for the yield on Treasury bonds is consistent with the intention of
10 the analytical exercise, which is to estimate the investor-required return on equity.
11 Moreover, the Betas, in particular the Bloomberg Betas, which have the ability to capture
12 market changes without the lag effect of Value Line's publication schedule, demonstrate
13 that utilities have been trading more like the overall market in the current market
14 conditions. Based on these assumptions, the CAPM can provide a reasonable estimate of
15 the cost of equity using current market conditions and investor expectations. Based on this
16 analysis, it is reasonable to place greater weight on the results of the updated CAPM when
17 determining the ROE for PSNH.

18 **Q. Please summarize the results of your updated capital structure analysis.**

19 A. As shown in Attachment AEB-Supplemental-10, I updated the capital structure analysis to
20 include the most recently available eight quarters of reported capital structure data for the
21 proxy group companies. As in my Direct Testimony, this analysis is based on the capital

1 structures of the utility operating companies of the proxy group companies. As shown in
2 Attachment AEB-Supplemental-10, the equity ratio as of the end of the first quarter of
3 2020 was 52.80 percent and the average over the eight quarters was 53.55 percent. The
4 high end of the range is 58.34 percent for first quarter 2020 and 60.08 percent for the most
5 recent eight quarters.

6 **Q. How does the Company's proposed capital structure compare with the capital**
7 **structures of the proxy group companies?**

8 A. The Company's actual five-quarter average equity ratio as of June 30, 2020 is 55.09
9 percent. I understand that the Company has sought authorization from the NHPUC to issue
10 up to \$200 million of long-term debt. In addition, pending approval from the Commission,
11 the Company expects to issue at least \$150 million of debt by August 31, 2020.
12 Incorporating this new issuance into the capital structure, without making any other
13 adjustments to the capital structure would result in a five-quarter equity ratio of 54.41
14 percent. Based on the analysis presented in Attachment AEB-Supplemental-10, the
15 Company's proposed capital structure is well within the range of the capital structures of
16 the utility operating companies in the proxy group and therefore is reasonable.

17 **V. RECENTLY AUTHORIZED RETURNS IN OTHER JURISDICTIONS**

18 **Q. Have you reviewed the returns that have been authorized in other jurisdictions since**
19 **the filing of your Rebuttal Testimony?**

20 A. Yes. Figure 2 in my Rebuttal Testimony summarizes recently authorized ROEs for the
21 period from January 2009 through January 2020 and compares those returns with the
22 recommendations of Dr. Woolridge and Dr. Chattopadhyay. As shown in that chart, the
23 average annual authorized return over the last few years was approximately 125 to 150

1 basis points above the returns recommended by these witnesses. Since that time, there
2 have been some additional cases that have been finalized. As shown in Attachment AEB-
3 Supplemental-9, the range of returns that have been authorized since January 2020 is 9.10
4 percent to 10.00 percent with a mean of 9.54 percent.¹³ Furthermore, it is important to note
5 that the range established by the fully litigated cases has been somewhat higher; 9.25
6 percent to 10.00 percent with a mean of 9.64 percent, which is generally consistent with
7 the range established in the data set that was reviewed in my Rebuttal Testimony.

8 **VI. CONCLUSION AND RECOMMENDATION**

9 **Q. What is your conclusion regarding a fair return on equity for PSNH?**

10 A. Based on my updated analyses, I conclude that my ROE recommendation of 10.40 percent
11 remains reasonable for PSNH. A return at this level is:

- 12 1. Supported by the range of results contained in my Direct and Rebuttal Testimonies
13 and this Supplemental Testimony;
- 14 2. Consistent with the increased return to equity resulting from current capital market
15 conditions; and
- 16 3. Consistent with the range of ROEs awards for electric utilities in other state
17 jurisdictions.

18 **Q. Does this conclude your Supplemental Testimony?**

19 A. Yes, it does.

¹³ Source: SNL Energy. Data excludes the Central Maine Power ROE of 8.25 percent authorized on February 19, 2020 because it included a penalty of 100 basis points for management performance.