BEFORE THE NORTH CAROLINA UTILITIES COMMISSION

DOCKET NO. G-5, SUB 632

In the Matter of	
Application of Public Service Company	)
of North Carolina, Inc. for a General	)
Rate Increase and Charges	)

DIRECT TESTIMONY OF

KEVIN W. O'DONNELL, CFA

ON BEHALF OF
CAROLINA UTILITY CUSTOMERS ASSOCIATION

September 23, 2021

Table of Contents

I.   INTRODUCTION

Q. PLEASE STATE YOUR NAME, POSITION, AND BUSINESS ADDRESS FOR THE RECORD.

A.   My name is Kevin W. O'Donnell. I am President of Nova Energy Consultants, Inc. My business address is 1350 SE Maynard Rd., Suite 101, Cary, North Carolina 27511.

Q. ON WHOSE BEHALF ARE YOU PRESENTING TESTIMONY IN THIS PROCEEDING?

A.   I am testifying on behalf of the Carolina Utility Customers Association ("CUCA"). CUCA represents industrial and manufacturing users before the North Carolina Utilities Commission ("NCUC" or "Commission").

Q. PLEASE SUMMARIZE YOUR EDUCATIONAL BACKGROUND AND RELEVANT EMPLOYMENT EXPERIENCE.

A.   I have a Bachelor of Science in Civil Engineering from North Carolina State University and a Master of Business Administration from Florida State University. I earned the designation of Chartered Financial Analyst ("CFA") in 1988. I have worked in utility regulation since September 1984, when I joined the Public Staff of the North Carolina Utilities Commission . I left the Public Staff in 1991 and have worked continuously in utility consulting since that time, first with Booth & Associates, Inc. (until 1994),

1   then as Director of Retail Rates for the North Carolina Electric Membership

2   Corporation (1994-1995), and since then in my own consulting firm.

3   I have been accepted as an expert witness on rate of return, cost of

4   capital, capital structure, cost of service, rate design, and other regulatory

5   issues in general rate cases, fuel cost proceedings, and other proceedings

6   before the North Carolina Utilities Commission, the South Carolina Public

7   Service Commission, the Wisconsin Public Service Commission, the

8   Virginia State Commerce Commission, the Minnesota Public Service

9   Commission, the New Jersey Commission of Public Utilities, the Colorado

10   Public Utilities Commission, the District of Columbia Public Service

11   Commission, and the Florida Public Service Commission. In 1996, I

12   testified before the U.S. House of Representatives' Committee on

13   Commerce and Subcommittee on Energy and Power, concerning

14   competition within the electric utility industry. Additional details regarding

15   my education and work experience are set forth in **Appendix A**.

16

17 **Q.**   **WHAT IS THE PURPOSE OF YOUR TESTIMONY IN THIS**

18   **PROCEEDING?**

19 A.   The purpose of my testimony in this proceeding is to present my findings

20   and recommendations to the Commission as to the proper rate of return to

21   allow PSNC Natural Gas Company ("PSNC" or "Company") in the current

22   proceeding.

23

Direct Testimony of Kevin W. O'Donnell   Page 2
on behalf of Carolina Utility Customers Association
Docket No. G-5, Sub 632

1 **Q.** **WHAT RATE OF RETURN IS PSNC REQUESTING AS PART OF**

2 **THIS PROCEEDING?**

3 A. According to the testimony of PSNC's Witness Quynh P. Bowman, PSNC

4 is seeking an overall rate of return of 7.27% based on the capital structure

5 and cost rates as set forth in **Table 1** below.

6 **Table 1**: PSNC's Requested Cost of Capital[1]

7

	Capital Structure Ratio (%)		Cost Rate (%)	Weighted Cost Rate (%)
	Witness Nelson's Direct Testimony, page 3, **a**	**c = a / b**	Witness Spaulding's Direct Testimony, Exhibit 6 page 2, **d**	**= c * d**
Long-Term Debt	43.79%	43.8%	4.59%	2.01%
Short-Term Debt	1.33%	1.3%	0.24%	0.00%
Common Equity	54.88%	54.9%	10.25%	5.63%
Rx	100.00%	100.00%		7.64%

8

9 **Q.** **SHOULD THE COMMISSION ADOPT THE COMPANY'S COST**

10 **OF CAPITAL CLAIM TO SET JUST AND REASONABLE RATES?**

11 A. The Company's 10.25% equity cost rate is overstated when compared to

12 my Cost of Common Equity Analyses (see **Section VII**: Cost of Common

13 Equity). The Company determined that its equity ratio request of 54.88%

14 was appropriate based on flawed cost of equity analyses that do not reflect

15 market conditions (see **Section VIII**: Review of Cost of Equity Analysis of

16 Witness Nelson). As discussed in the remainder of this testimony, adoption

17 of the Company's requested cost of capital claim would overburden

---

[1] Witness Bowman's Direct Testimony, **Exhibit QPB-7**, page 2.

1   ratepayers, especially in light of the current economic conditions brought

2   on by the COVID-19 pandemic.

3

4 **Q.**   **PLEASE SUMMARIZE YOUR PRIMARY RECOMMENDATIONS**

5   **IN THIS CASE.**

6 A.   My recommendations in this case are as follows:

7   • The proper capital structure to use in this proceeding is 50.00% common

8   equity, 48.53% long-term debt, and 1.47% short-term debt;

9   • The proper cost of long-term debt to use in this case is 4.55% and is

10   0.24% for short-term debt;

11   • The proper return on equity on which to set rates for PSNC in this

12   proceeding is 9.00%. This 9.00% recommendation is a market-based

13   cost of equity which will allow the Company to access capital markets,

14   while also ensuring that the rate is fair to the Company's captive

15   customers;

16   • The overall cost of capital I am recommending in this case is 6.65%;

17   • The return on equity recommended by Witness Nelson for PSNC of

18   10.25% is excessive, unreasonable, and not indicative of current market

19   conditions; and

20   • My recommended rate design is as follows: a 6.83% increase for the

21   residential class; a 6.24% increase for the small general service class; a

22   3.00% increase for the medium general service class; a 7.85% for the

1   large general service class; and a 7.62% increase for the large

2   interruptible class.

3

4   My recommended capital structure, ROE, and overall return are shown

5   below within **Table 2** as based upon the results and data shown within

6   **Exhibit KWO-1**:

7   **Table 2**:CUCA Recommended
8   Overall Rate of Return
9

CUCA's Overall Recommendation			
Component	Ratio (%)	Cost Rate (%)	Weighted Cost Rate (%)
Long-Term Debt	48.53%	4.43%	2.15%
Short-Term Debt	1.47%	0.24%	0.00%
Common Equity	50.00%	9.00%	4.50%
Total Capitalization	**100.00%**		**6.65%**

10

11   **II.   CURRENT STATE OF THE FINANCIAL**
12   **MARKETS AND CHANGES SINCE LAST**
13   **PSNC RATE CASE**

14   **Q.   PLEASE DESCRIBE THE CURRENT STATE OF THE FINANCIAL**

15   **MARKETS.**

16   A.   The equity market has rebounded strongly since the outbreak of the

17   COVID-19 pandemic. Just prior to the pandemic, the S&P 500 index, which

18   represents the 500 largest companies in the United States, was 3,386 as of

1   February 19, 2020.[2] When the severity of the pandemic sank into the

2   market, the S&P 500 index moved sharply downward to just above 2,237[3]

3   as of March 23, 2020, representing roughly a 1/3 loss in the index. As of

4   July 2, 2021, the S&P 500 index closed over 4,352,[4] representing roughly a

5   95% gain from the low value that occurred on March 23, 2020. Clearly,

6   investors weathered the storm and are now expecting solid growth from the

7   US and world economies in the near future.

8   The debt markets have also rebounded from the impact of COVID-

9   19. The Federal Reserve stepped in to ensure adequate liquidity to the

10   markets and, as a result, interest rates stabilized and utilities were able to

11   obtain adequate debt capital during the pandemic.

12

13 **Q.**   **DESCRIBE THE KEY ELEMENTS OF PSNC'S RECENT RATE**

14   **CASES.**

15 A.   The Company's most recently completed base rate case was filed on March

16   31, 2016 2019 under Docket No. G-5, Sub 565. In that case, the Company

17   requested an overall rate of return of 8.14% and inclusive of a cost of equity

18   of 10.60% and a capital structure weighted with 53.50% common equity.[5]

---

[2] Yahoo! Finance, *S&P 500 Historical Data*, *available at*
https://finance.yahoo.com/quote/%5EGSPC/history?p=%5EGSPC. (last
accessed July 6, 2021).
[3] *Id.*
[4] *Id.*
[5] S&P Global accessed (Sept. 9, 2021).

Direct Testimony of Kevin W. O'Donnell   Page 6
on behalf of Carolina Utility Customers Association
Docket No. G-5, Sub 632

1   Ultimately, the Commission approved a settlement of PSNC's 2016

2   general rate case, which allowed PSNC to increase rates. PSNC was

3   allowed an overall rate of return of 7.53%, inclusive of a 9.70% cost of

4   equity with a capital structure weighted with 52.00% common equity.[6]

5

6   **Q.   HAS THE DEBT MARKET FOR PSNC CHANGED SINCE THE**

7   **COMPANY'S 2016 GENERAL RATE CASE?**

8   A.   Yes. The debt markets have changed since PSNC filed its 2019 base rate

9   case on April 1, 2019 as exhibited in **Chart 1** below. Within this chart, I

10   have provided the change in the 30-year US Treasury Bond yields from

11   October 28, 2016 to August 20, 2021. The maximum value over this period

12   was 3.46%, the average value was 2.50%, and the minimum value was

13   0.99%. Refer to **Chart 1** below for further details on the yield on 30-year

14   US Treasury Bonds subsequent to the previous rate case.

---

[6] *Id.*

1   **Chart 1**:   Yield on 30-Year US Treasury Bonds[7]

30-Year U.S. Treasury Bond Yields Since the Previous Rate Case
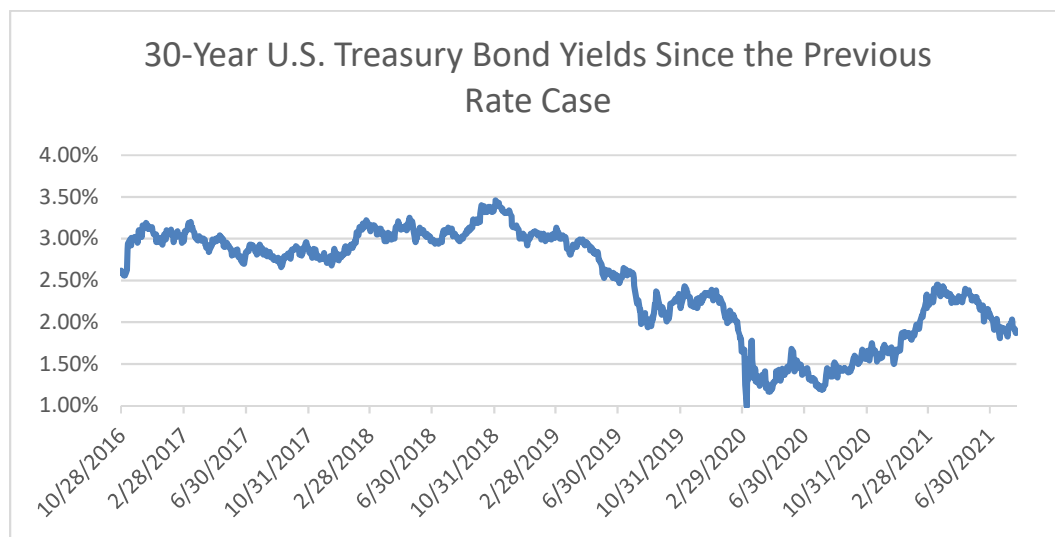
2

3

4   **Q.   HOW ARE INTEREST RATES EXPECTED TO CHANGE OVER**

5   **THE NEXT FEW YEARS?**

6   A.   The Federal Funds Rate is the interest rate that banks charge to one another

7   to borrow or lend excess reserves on hand overnight. This rate plays an

8   important role in the movement of interest rates, and the Federal Reserve's

9   actions over the previous 18-months helps to showcase the steady decline

10   in interest rates from 2018 to 2020. On March 15, 2020, in response to the

11   COVID-19 outbreak and the disruptions to economic activity in this country

12   across the globe, the Federal Reserve reduced the Federal Funds rate to

13   0.25%.[8]

---

[7] U.S. Dep't of the Treasury, *Daily Treasury Yield Curves*, *available at* https://www.treasury.gov/resource-center/data-chart-center/interest-rates/Pages/TextView.aspx?data=yield (last accessed July 6, 2021).
[8] *See* Commission of Governors of the Federal Reserve System, *Federal Reserve Issues FOMC Statement* (Mar. 15, 2020), *available at*

1   The Federal Reserve has since stated that it does not expect to

2   change the Federal Funds Rate at any time in the foreseeable future.

3   Chairman Powell reinforced this view when he said in January 2021 that,

4   "When the time comes to raise interest rates, we'll certainly do that, and

5   that time, by the way, is no time soon."[9] Subsequent to the statements made

6   by Chairman Powell in March 2021, the Federal Reserve explained that

7   although they had sped up their overall expectation for economic growth,

8   they continued to reinforce that they did not see any interest rate hikes likely

9   through 2023.[10] This line of thinking by the Federal Reserve then carried

10   into July 2021 as well.[11]

11   As noted above, while changes within the market have raised certain

12   interest rate benchmarks during 2021, these interest rates still remain low in

13   relation to historical interest rates. This lower interest rate environment has

14   continued to provide a benefit to utilities from a borrowing perspective.

15

---

https://www.federalreserve.gov/newsevents/pressreleases/monetary20200315a.htm.
[9] Jeff Cox, *Powell sees no interest rate hikes on the horizon as long as inflation stays low*, CNBC News (Jan. 14, 2021), *available at* https://www.cnbc.com/2021/01/14/powell-sees-no-interest-rate-hikes-on-the-horizon-as-long-as-inflation-stays-low.html.
[10] Jeff Cox, *Fed sees stronger economy and higher inflation, but no rate hikes*, CNBC News (Mar. 17, 2021), *available at* https://www.cnbc.com/2021/03/17/fed-decision-march-2021-fed-sees-stronger-economy-higher-inflation-but-no-rate-hikes.html.
[11] Taylor Tepper & Benjamin Curry, *July 2021 FOMC Meeting: Fed Keeps Policy Unchanged As Pressure To Taper Increases*, Forbes Advisor (Jul. 28, 2021), *available at* https://www.forbes.com/advisor/investing/fomc-meeting-federal-reserve/.

1 **Q.** **HOW HAS THE STOCK MARKET FOR UTILITIES CHANGED**

2 **OVER THE PAST YEAR AND A HALF?**

3 A. Utilities have always been considered a safe harbor for investors during

4 market turbulence or uncertainty, and the COVID-19 pandemic is no

5 different. During times of economic uncertainty, individuals and businesses

6 still require the essential services provided by utilities. As such, the market

7 for utilities remained strong during the past year and a half, even during the

8 COVID-19 pandemic and the associated economic shutdown.

9 **Chart 2**, which is a double y-axis graph, shows the change in the

10 Dow Jones Utility Average ("DJUA") since the start of 2020 (*i.e.,* 1/2/2020

11 – 7/6/2021), as compared to the Dow Jones Industrial Average ("DJIA")

12 over the same period.

1   **Chart 2:** DJIA to DJUA Comparison[12]

Equity Markets January 2020 - July 2021

2
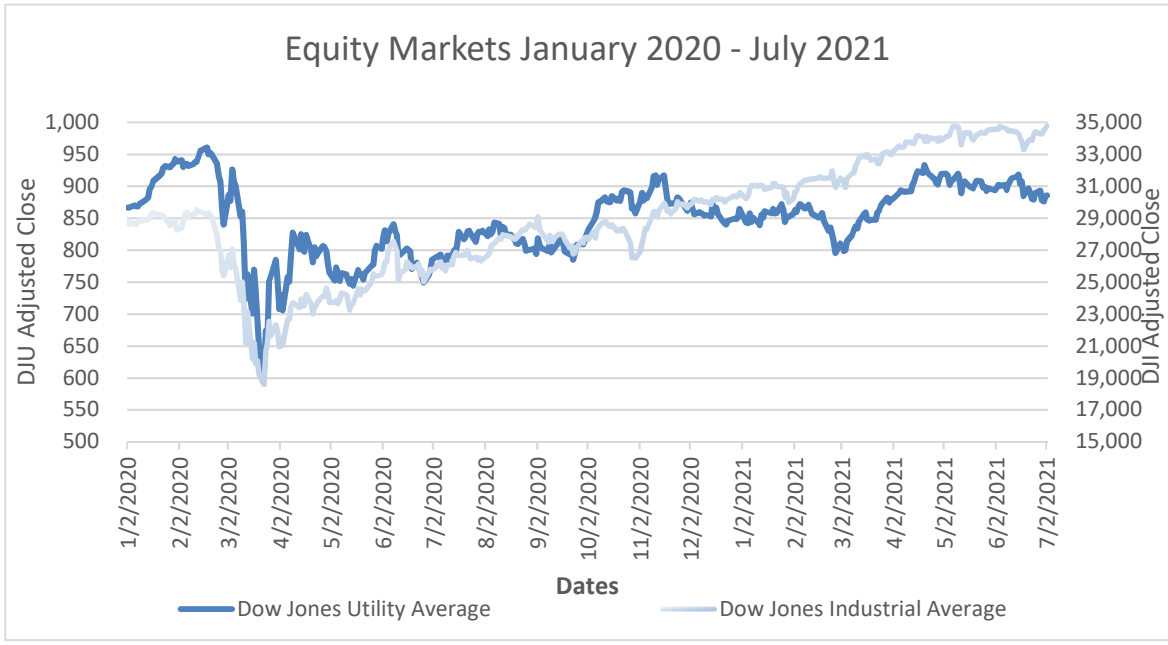
3   Although the DJIA is now at a level greater than that of the DJUA, the

4   DJUA initially rebounded much more quickly than the DJIA. This further

5   enforces the fact that the utility equity market has remained stable and

6   consistent. Thus, although all markets were obviously impacted by the

7   COVID-19 pandemic, utilities such as PSNC have not had an issue

8   accessing the capital markets. In light of this, PSNC simply does not require

9   a 10.25% ROE to attract and compete for capital in the current economic

10   environment, especially given the positive market movements in 2021 as

11   the overall economic recovery continues.

---

[12] Yahoo! Finance, Dow Jones Utility Average, *available at* https://finance.yahoo.com/quote/%5EDJU/components/ (last accessed July 6, 2021); Yahoo! Finance, Dow Jones Industrial Average, *available at* https://finance.yahoo.com/quote/%5EDJI/history (last accessed July 6, 2021).

1 **Q.** **DO YOU HAVE ANY OTHER SUPPORT FOR HOW UTILITIES**

2 **LIKE PSNC WERE STILL ABLE TO ACCESS THE CAPITAL**

3 **MARKETS EVEN DURING THE COVID-19 PANDEMIC?**

4 A. Yes. On April 2, 2020, S&P Global Market Intelligence published an article

5 entitled "US utilities demonstrate access to capital with billions in debt

6 offerings." This article described how utilities tapped into current credit

7 markets to obtain low-cost debt during periods of financial turbulence as

8 noted in the excerpt below:

9 Several utilities, including Xcel Energy and NextEra Energy
10 Inc. subsidiary Florida Power & Light Co., which issued
11 $1.1 billion in first mortgage bonds, are "*using the*
12 *opportunity to take advantage of attractive borrowing costs,*
13 *so there does not appear to be an inability to access capital*,"
14 they said.

15

16 "*Utilities are reporting that recent deals have been*
17 *significantly (7x) oversubscribed, highlighting that the*
18 *capital markets are open for investment grade-rated*
19 *utilities*," the analysts wrote. "*At the same time, we have also*
20 *observed some utility companies that have fully drawn their*
21 *bank lines as a precaution to provide them with liquidity in*
22 *the event that markets seize up*," such as Dominion Energy
23 Corp. and American Electric Power Co. Inc.[13]

24

25 Additionally, during the midst of the early stages of the COVID-19

26 pandemic on April 29, 2020, S&P Global Market Intelligence published an

27 article entitled "Utility sector 'far and away' least impacted by EPS estimate

---

[13]Ellen Meyers, *US utilities demonstrate access to capital with billions in debt offerings*, S&P Global Market Intelligence (Apr. 2 2020), *available at* https://www.spglobal.com/marketintelligence/en/news-insights/latest-news-headlines/us-utilities-demonstrate-access-to-capital-with-billions-in-debt-offerings-57881534.

1   cuts."[14] Note that on the date that this article was published, markets were

2   at their most volatile during the early stages of the COVID-19 pandemic.

3   The article provided the following observation:

4   The S&P 500 utility sector has "far and away" experienced
5   the least impact from earnings revisions since Feb. 28, the
6   corporate bond research firm found. Despite market turmoil
7   and the ongoing economic downturn, analysts have only cut
8   earnings per share expectations for stocks in the utility sector
9   by an average 1% for 2020 and 2021, according to
10   CreditSights.

12   By comparison, consumer staples, the next least-impacted
13   sector, saw an average 5% decrease to EPS estimates for
14   both years. Technology followed with a 9% estimate cut for
15   2020 and 2021.

17   CreditSights pulled the data to measure the consensus view
18   that utilities provide a safe harbor to investors. "*Water is wet,
19   the sun will rise in the east and U.S. utilities are a defensive
20   sector, but how defensive? Very defensive,*" CreditSights
21   analysts Andrew DeVries and Nick Moglia wrote in an April
22   29 research note.[15]

24   The above referenced article noted the ability of utilities to continue to

25   operate based upon the conditions of the debt and equity markets. This

26   allowed many utilities to perform strongly even in the face of the COVID-

27   19 pandemic as referenced in the December 9, 2020 article from S&P

28   Global Market Intelligence, entitled "Resilient Utilities Post Notable EPS

---

[14] Tom DiChristopher, *Utility sector 'far and away' least impacted by EPS estimate cuts*, S&P Global Market Intelligence (Apr. 29, 2020), *available at* https://www.spglobal.com/marketintelligence/en/news-insights/latest-news-headlines/utility-sector-far-and-away-least-impacted-by-eps-estimate-cuts-58358458.
[15] *Id.*

---

1   Gains, Solid ROEs Despite COVID-19 Pandemic." The S&P Global

2   Market Intelligence article noted:

3   Despite the significant challenges caused by an economy
4   that continued to be negatively impacted by COVID-19,
5   utilities overall posted solid earnings growth and earned
6   returns on equity during the third quarter, illustrating the
7   tenet that utility finances hold up comparatively well in
8   challenging economic environments.[16]
9
10   Although the utility sector was impacted by the COVID-19 pandemic just

11   like the rest of the economy, utilities were much more resilient during this

12   period than companies across other industries. The resilient performance of

13   utilities, as well as their ability to continue to tap into debt markets,

14   demonstrate that utilities were still able to access a variety of capital markets

15   throughout 2020—which only continued into 2021 after the broader capital-

16   market resurgence.

17

18   **Q.**   **WHAT HAVE BEEN THE IMPACTS ON THE EQUITY MARKETS**

19   **AS A RESULT OF THE COVID-19 PANDEMIC?**

20   A.   As shown in **Chart 2**, equity markets were negatively impacted during the

21   first two quarters of 2020, before later rebounding during the second half of

22   2020 and into 2021. During the majority of 2020, businesses were closed,

23   and workers stayed home as the United States and world economies slowed

---

[16] Dennis Sperduto, *Resilient Utilities Post Notable EPS Gains, Solid ROEs Despite COVID-19 Pandemic*, S&P Global Market Intelligence (Dec. 9, 2020), *available at* https://platform.marketintelligence.spglobal.com/web/client?auth=inherit#news/articleabstract?id=61646964.

1   dramatically prior to the beginning of phased reopening plans around the

2   world. While I note that the economic recovery that began during the latter

3   part of 2020 has continued into 2021, and that there is an expectation that

4   the economy will continue its rebound throughout 2021, there is no current

5   expectation that the economy will fully recover, or that the sustained

6   civilian unemployment rate will reach pre-2020 levels, at any point in the

7   near-term.

8   To that point, Federal Reserve Chairman Jerome Powell noted that

9   although there was growth in the second half of 2020, the timeline for a full

10   economic recovery across a variety of indicators remains uncertain as

11   referenced within the following quote from December 1, 2020:

12   Economic activity has continued to recover from its
13   depressed second quarter level. The reopening of the
14   economy led to a rapid rebound in activity, and real gross
15   domestic product, or GDP, rose at an annual rate of 33
16   percent in the third quarter. In recent months, however, the
17   pace of the improvement has moderated…The economic
18   downturn has not fallen equally on all Americans, and those
19   least able to shoulder the burden have been the hardest
20   hit...The economic dislocation has upended many lives and
21   created great uncertainty about the future…As we have
22   emphasized throughout this pandemic, the outlook for the
23   economy is extraordinarily uncertain….[17]
24
25   During a press conference on March 17, 2021, Chairman Powell then noted

26   that:

27   The overall recovery in economic activity since last spring
28   is due importantly to unprecedented fiscal and monetary

---

[17] Jerome Powell, *Coronavirus Aid, Relief, and Economic Security Act*,
Testimony before the U.S. Senate Committee on Bank, Housing, and Urban
Affairs (Dec. 1, 2020), *available at*
https://www.federalreserve.gov/newsevents/testimony/powell20201201a.htm.

1	policy actions, which have provided essential support to
2	households, businesses, and communities. The recovery has
3	progressed more quickly than generally expected, and
4	forecasts from FOMC participants for economic growth this
5	year have been revised up notably since our December
6	Summary of Economic Projections…As with overall
7	economic activity, conditions in the labor market have
8	turned up recently. Employment rose by 379,000 in
9	February, as the leisure and hospitality sector recouped
10	about two-thirds of the jobs that were lost in December and
11	January. Nonetheless, employment in this sector is more
12	than 3 million below its level at the onset of the pandemic.
13	For the economy as a whole, employment is 9.5 million
14	below its pre-pandemic level. The unemployment rate
15	remains elevated at 6.2 percent in February; this figure
16	understates the shortfall in employment, particularly as
17	participation in the labor market remains notably below pre-
18	pandemic levels.[18]
19	
20	Chairman Powell also noted on April 12, 2021 that, "The recovery, though
21	here, remains uneven and incomplete. <u>The burden is still falling on lower-</u>
22	<u>income workers and the unemployment rate in the bottom quartile is still 20</u>
23	<u>percent</u>."[19] Additionally, Michelle Bowman (Federal Reserve Board
24	Governor) stated on May 5, 2021 that:
25	The economic recovery is not yet complete, and the
26	uncertain course of the pandemic still presents risks in the
27	near term…Despite the progress to date and the signs of
28	acceleration in the recovery, employment is still
29	considerably short of where it was when the pandemic
30	disrupted the economy and it is well below where it should
31	be, considering the pre-pandemic trend.[20]

[18] Jerome Powell, *Transcript of Chair Powell's Press Conference* (Mar. 17, 2021), *available at* https://www.federalreserve.gov/mediacenter/files/FOMCpresconf20210317.pdf.
[19] Radmilla Suleymanova, *Powell: Economy will not be confident until world is vaccinated*, Aljazeera (Apr. 8, 2021), *available at* https://www.aljazeera.com/amp/economy/2021/4/8/powell-economy-will-not-be-confident-until-world-is-vaccinated (emphasis added).
[20] Michelle W. Bowman, *The Economic Outlook and Implications for Monetary Policy* (May 5, 2021), *available at* https://www.federalreserve.gov/newsevents/speech/bowman20210505a.htm.

1

2   To this same point, on May 11, 2021, Lael Brainard (Federal Reserve Board

3   Governor) also noted:

> 4   The latest jobs report reminds us that while there are good
> 5   reasons to expect the number of jobs and the number of
> 6   people wanting to work will make a full recovery, it is
> 7   unlikely they will recover at the same pace…Job losses are
> 8   disproportionately concentrated in low-wage, high-contact
> 9   sectors, suggesting that workers least able to shoulder the
> 10   economic effect of job loss have faced the greatest
> 11   challenges.[21]

12

13   Chairman Powell reiterated this line of thinking as recently as July

14   2021, when he noted that more economic improvement and sustained

15   stability was needed before the Fed would entertain doing anything that

16   would negatively impact economic activity. Chairman Powell noted that

17   this was the case given that the United State was still "8.5 million jobs from

18   where we were in February of 2020."[22]

19   As referenced in the quotes above, although there has been

20   considerable growth and recovery within the capital markets over the

21   second half of 2020, and into 2021, the individuals within PSNC's customer

22   base that were most negatively impacted by the pandemic are still struggling

23   with such issues. Even while economic growth within the markets has

---

[21] Lael Brainard, *Patience and Progress as the Economy Reopens and Recovers* (May 11, 2021), *available at* https://www.federalreserve.gov/newsevents/speech/brainard20210511a.htm#fn13.

[22] Taylor Tepper & Benjamin Curry, *July 2021 FOMC Meeting: Fed Keeps Policy Unchanged As Pressure To Taper Increases*, Forbes Advisor (Jul 28, 2021), *available at* https://www.forbes.com/advisor/investing/fomc-meeting-federal-reserve/.

Direct Testimony of Kevin W. O'Donnell   Page 17
on behalf of Carolina Utility Customers Association
Docket No. G-5, Sub 632

1   grown at a rate faster than anticipated as COVID-19 cases declined and

2   economies began to reopen, there are key indicators (such as employment

3   figures) that remain depressed. As such, any additional rate increases would

4   only continue to exacerbate the negative economic circumstances

5   encountered by this portion of PSNC's consumer base.

6

7   Q.   **WHAT OTHER FACTORS SHOULD THE COMMISSION**

8   **CONSIDER IN DETERMINING AN APPROPRIATE COST OF**

9   **CAPITAL FOR PSNC?**

10   A.   The ability of a utility to access the capital markets is just part of the

11   determination of an appropriate cost of capital for rate setting. The

12   Commission should also consider the position of ratepayers who must

13   continue to make non-discretionary purchases, such as gas, electricity, or

14   water from monopoly utilities, regardless of the impact of the COVID-19

15   pandemic.

16   Many consumers at the residential, commercial, and industrial levels

17   have struggled to pay their utility bills as unemployment levels spiked

18   during 2020 and remained higher than average into the second half of 2020

19   and into 2021, with various businesses also shut down for extended time

20   over this period.

21   For instance, while the financial markets began a rebound in the

22   third quarter of 2020, the average civilian unemployment rate still exceeded

23   what was common in prior periods. The unemployment rate was heightened

1   at 6.77% in Q4 2020 and averaged 8.12% during the entirety of 2020.[23] For

2   comparison purposes, the average monthly civilian unemployment rate

3   from 2019 was 3.67%.[24] While the unemployment rate improved through

4   the second half of 2020 and into 2021, it still averaged 6.17% for Q1 2021

5   and 5.93% for Q2 2021.[25]

6   The comparison of the unemployment rates between these time

7   periods further reinforces that the Company's "business as usual" request is

8   not appropriate in the current economic climate for its customers.

9

10   **Q.   WHY DO YOU BELIEVE THE COMPANY'S 10.25% ROE**

11   **REQUEST IN THIS CASE IS NOT APPROPRIATE GIVEN THE**

12   **CURRENT STATE OF THE FINANCIAL MARKETS?**

13   A.   In PSNC's most recently concluded base rate case from 2019, PSNC

14   Witness Robert Hevert recommended a 10.60% market-based ROE.[26] In the

15   current proceeding in 2021, Ms. Nelson has recommended a 10.25% ROE

16   as market-based.

17   Based upon my cost of equity analyses discussed below, a market-

18   based cost of equity for PSNC should be no higher than 9.00%. The

19   Commission's determination of an appropriate cost of equity must consider

---

[23] U.S. Bureau of Labor Statistics, *Civilian Unemployment Rate*, *available at*
https://www.bls.gov/charts/employment-situation/civilian-unemployment-
rate.htm.
[24] *Id.*
[25] *Id.*
[26] *Order Approving Stipulation*, Docket No. G-9, Sub 743 (Oct. 31, 2019).

1   the needs of the consumers, and not just the interests of PSNC. Many of

2   PSNC's customers are still dealing with ongoing financial struggles linked

3   to a variety of factors, such as higher than average unemployment numbers

4   throughout 2020 and 2021. My recommended cost of capital for PSNC's is

5   based upon a careful analysis of current financial data, disciplined

6   application of cost of equity models to an appropriate proxy group of natural

7   gas utilities, and identification of an appropriate capital structure for setting

8   rates. My cost of capital recommendation for PSNC balances the

9   Company's need to access the markets and the interests of consumers who

10   will be asked to pay the rates for essential natural gas distribution utility

11   service.

12

13   **Q.   ARE THERE ANY CURRENT MARKET CONDITIONS THAT**

14   **WOULD GIVE RISE TO CONCERNS ABOUT THE MARKET'S**

15   **OVERALL PRICING?**

16   A.   I recognize that on July 13, 2021, the Consumer Price Index ("CPI")

17   reported that inflation results had increased by 5.4% year to date through

18   June 2021, which was higher than anticipated by economists and the

19   market.[27] However, this report of inflation is too early to predict whether

20   the United States economy will seriously suffer permanently in the long

---

[27] *Prices Pop Again, and Fed and White House Seek to Ease Inflation Fears*,
N.Y. Times (July 13, 2021), *available at*
https://www.nytimes.com/2021/07/13/business/economy/consumer-price-index-june-2021.html.

1   term due to rising prices. In order to capture as much of this change as

2   possible, I have examined markets as close to the testimony filing deadline

3   as possible in this case.

4

5   **III.   ECONOMIC AND REGULATORY POLICY**

6   **GUIDELINES FOR A JUST AND REASONABLE**

7   **RATE OF RETURN**

8   **Q.   PLEASE BRIEFLY DESCRIBE THE ECONOMIC AND**

9   **REGULATORY POLICY CONSIDERATIONS YOU HAVE TAKEN**

10   **INTO ACCOUNT IN DEVELOPING YOUR RECOMMENDATION**

11   **CONCERNING THE JUST AND REASONABLE RATE OF**

12   **RETURN THAT UTILITY COMPANIES SHOULD HAVE AN**

13   **OPPORTUNITY TO EARN.**

14   A.   The theory of utility regulation assumes that public utilities perform

15   functions that are natural monopolies. Historically, it was believed or

16   assumed that it was more efficient for a single firm to provide a particular

17   utility service than multiple firms. Within the gas industry, the transmission

18   and distribution of gas to utilities' end-use customers is still a monopolistic

19   business and will, for the foreseeable future, be regulated. On this basis,

20   state legislatures and state utility commissions/boards established exclusive

21   franchised territories to public utilities in order for these utilities to provide

22   services more efficiently and at the lowest reasonable cost. In exchange for

Direct Testimony of Kevin W. O'Donnell   Page 21
on behalf of Carolina Utility Customers Association
Docket No. G-5, Sub 632

1   the protection within its monopoly service area, the utility is obligated to

2   provide service that is adequate and non-discriminatory at just and

3   reasonable rates.

4   This trade-off logically leads to the question – what constitutes a just

5   and reasonable rate? The generally accepted answer is that a prudently

6   managed utility should be allowed to charge prices that allow the utility the

7   opportunity to recover the reasonable and prudent costs of providing utility

8   service and the opportunity to earn a just and reasonable rate of return on

9   invested capital. The just and reasonable rate of return on capital should

10 allow the utility, under prudent management, to provide adequate service

11 and attract capital to meet future expansion needs in its service area. Since

12 public utilities are capital-intensive businesses, the cost of capital is a

13 crucial issue for utility companies, their customers, and regulators.

14   If the allowed rate of return is set too high, then consumers are

15 burdened with excessive costs, current investors receive a windfall, and the

16 utility has an incentive to overinvest. If the return is set too low, adequate

17 service is jeopardized because the utility will not be able to raise capital on

18 reasonable terms. As such, regulators are tasked with balancing the related

19 interests of the interested parties (*i.e.,* the utility's equity investors, the

20 utility itself, and the utility's customers at the varying residential,

21 commercial, and industrial levels). This balancing act results in what

22 regulators, analysts, and courts often refer to as setting rates within a "zone

23 of reasonableness." Since every equity investor faces a risk-return tradeoff,

1   the issue of risk is an important element in determining the just and

2   reasonable rate of return for a utility.

3   As I previously referenced above, PSNC filed its previous rate case

4   in April 2019, and its current rate case in March 2021. In the time that lapsed

5   between these two cases, the country experienced an economic recession

6   spurred on by a pandemic the likes of which have not been seen in this

7   country for over a century. Accordingly, what a utility may have initially

8   deemed as constituting just and reasonable rates during prior years may

9   simply be construed as unreasonable today given the current economic

10   climate absent any of the other particulars of their request.

11

12   **Q.**   **PLEASE EXPLAIN THE SIGNIFICANCE OF THE SUPREME**

13   **COURT'S *HOPE* AND *BLUEFIELD* DECISIONS.**

14   A.   Regulatory law and policy recognize that utilities compete with other firms

15   in the market for investor capital. The United States Supreme Court set the

16   guidelines for a fair, just, and reasonable rate of return in two often-cited

17   cases: *Bluefield Water Works and Improvement Co. v. Public Service*

18   *Comm'n.* 262 U.S. 679 (1923), and *Federal Power Comm'n v. Hope Natural*

19   *Gas Co.*, 320 U.S. 591 (1944).

20   In the *Bluefield* case, the U.S. Supreme Court stated:

21   A public utility is entitled to such rates as will permit it to
22   earn a return upon the value of the property which it employs
23   for the convenience of the public equal to that generally
24   being made at the same time and in the same general part of
25   the country on investments in other business undertakings

Direct Testimony of Kevin W. O'Donnell   Page 23
on behalf of Carolina Utility Customers Association
Docket No. G-5, Sub 632

1 which are attended by corresponding risks and uncertainties;
2 but it has no constitutional right to profits such as are
3 realized or anticipated in highly profitable enterprises or
4 speculative ventures. The return should be reasonably
5 sufficient to assure confidence in the financial soundness of
6 the utility and should be adequate, under efficient and
7 economical management, to maintain and support its credit,
8 and enable it to raise the money necessary for the proper
9 discharge of its public duties.[28]

10
11 In the above finding, the Court found that utilities are entitled to earn a

12 return on investments of comparable risks and that a corresponding return

13 should be sufficient enough to support credit activities and to raise funds to

14 carry out its mission.

15 In *Hope*, the U.S. Supreme Court recognized that utilities compete

16 with other firms in the market for investor capital. Historically, this case has

17 provided legal and policy guidance concerning the return which public

18 utilities should be allowed to earn. The *Hope* court stated that the return to

19 equity owners (or shareholders) of a regulated public utility should be

20 commensurate to returns on investments in other enterprises whose risks

21 correspond to those of the utility being examined:

22 [T]he return to the equity owner should be commensurate
23 with returns on investments in other enterprises having
24 corresponding risks. That return, moreover, should be
25 sufficient to assure confidence in the financial integrity of
26 the enterprise so as to maintain credit and attract capital.[29]

---

[28] 262 U.S. at 692.
[29] 320 U.S. at 603.

1   ## IV.   DEVELOPMENT OF PROXY GROUP

2   **Q.   PLEASE DESCRIBE HOW YOU SELECTED A PROXY GROUP**

3   **FOR ESTIMATING PSNC'S RETURN ON EQUITY.**

4   A.   The number of available gas utilities needed to develop a reasonably reliable

5   comparable group is dwindling. Over the past several years, certain gas

6   utilities have been acquired by large electric utility holding companies.

7   These acquisitions make sense for electric utilities as they desire to grow

8   their source of regulated earnings while, at the same time, gain natural gas

9   infrastructure that allows them to control the distribution of natural gas.

10   In regard to the composition of my proxy group, I opted to use the

11   full group of gas utilities compiled and followed by *Value Line*. As such,

12   each of the companies included by Ms. Nelson within her proxy group are

13   also included within my own proxy group. However, in contrast to Ms.

14   Nelson, I did not remove Chesapeake, NiSource, or UGI Corporation from

15   my proxy group. My reasoning for this is detailed in a below Q&A.

16   Additionally, unlike Ms. Nelson, I have chosen to perform an

17   analysis directly on Dominion Resources. PSNC is a wholly owned

18   subsidiary of Dominion Resouirces. As such, I found it appropriate to

19   perform a specific, singular analysis of Dominion Resources, as it provides

20   the most directly observable link between any company within the

21   comparable proxy group and PSNC.

22

23

1 **Q.   WHY DID YOU CHOOSE TO INCLUDE UGI CORP,**

2 **CHESAPEAKE, AND NISOURCE WITHIN YOUR COMPARABLE**

3 **GROUP, WHILE MS. NELSON OMITTED THE COMPANY FROM**

4 **HER ANALYSIS?**

5 A.   Within her direct testimony, Ms. Nelson stated that in developing her proxy

6   group, she first began with the ten companies included in *Value Line's*

7   Natural Gas Utility industry.[30] However, she then subjected those ten

8   companies to a screening process where she opted to remove Chesapeake

9   Utilities, NiSource, and UGI Corp.

10   I have decided not to perform a similar removal of companies from

11   my comparable proxy group because of the limited number of 10 companies

12   provided for the natural gas industry through *Value Line*. Throughout my

13   36 years of experience providing rate of return testimony across the United

14   States, I have always found analysts' removal of certain companies within

15   a proxy group to be inherently subjective. In addition, removing companies

16   from a group that is already small can result in data integrity issues. As such,

17   I have consistently maintained that within the natural gas industry, unless a

18   company is currently going through bankruptcy or a merger/acquisition, it

19   should be included within a proxy group for transparency purposes.

20   Additionally, please note that in reference to my proxy group, I am

21   aware UGI Corp. announced on December 30, 2020 their plan to purchase

---

[30] Witness Nelson Direct Testimony,

1   Mountaineer Gas in West Virginia.[31] As of July 21, 2021, the deal has not

2   closed. Normally, I would not include a company in my proxy group that is

3   in the middle of an acquisition. However, in this case, I am including UGI

4   for the following two reasons: First, Mountaineer Gas is quite small relative

5   to UGI (about 6% in total assets); and second, the natural gas proxy group

6   is already small so eliminating a company may allow another entity to skew

7   the results of the group.

8

9 Q.   **PLEASE EXPLAIN WHY YOU PERFORMED A COST OF EQUITY**

10   **ANALYSIS SEPARATELY ON DOMINION RESOURCES.**

11 A.   PSNC is owned by Dominion. As the owner PSNC, Dominion represents

12   the most direct link to PSNC, and an analysis performed specifically on

13   Dominion helps to provide a large body of knowledge of investor

14   expectations.

15

16   **V.   CAPITAL STRUCTURE**

17 Q.   **WHAT IS A CAPITAL STRUCTURE AND HOW DOES IT IMPACT**

18   **THE REVENUES THAT PSNC IS SEEKING?**

19 A.   The term "capital structure" refers to the relative percentage of debt, equity,

20   and other financial components that are used to finance a company's

---

[31] https://www.ugicorp.com/investors/press-releases/press-releases-details/2020/UGI-to-Acquire-Mountaineer-Gas-Company/default.aspx

1   investments. A company's capital structure typically includes some

2   combination of three principal financing methods.

3   The first method is to finance an investment with common equity,

4   which essentially represents ownership in a company and its investments.

5   Common equity is comprised of all investments from investors, including

6   common stock, retained earnings, and additional paid in capital. Returns on

7   common equity, which in part take the form of dividends to stockholders,

8   are not tax deductible. Therefore, on a pre-tax basis alone, common equity

9   is about 21% more expensive than debt financing.

10   The second form of corporate financing is preferred stock, which is

11   normally used to a much smaller degree in capital structures. Dividend

12   Payments associated with preferred stock are not tax deductible.

13   Debt is the third major form of financing used in the corporate

14   world. There are two basic types of corporate debt: long-term and short-

15   term. Long-term debt is generally understood to be debt that matures in a

16   period of more than one year. Short-term debt is debt that matures in a year

17   or less. Long-term debt and short-term debt, both of which are "above the

18   line" expenses for tax purposes, represent liabilities on the company's

19   books that must be repaid prior to any common stockholders or preferred

20   stockholders receiving a return on their investment.

21

22   **Q.   HOW IS A UTILITY'S TOTAL RETURN CALCULATED?**

---

1 A. A utility's total return is developed by multiplying the component

2 percentages of its capital structure, represented by the percentage ratios of

3 the various forms of capital financing relative to the total financing on the

4 company's books, by the cost rates associated with each form of capital and

5 then totaling the results over all of the capital components. When these

6 percentage ratios are applied to various cost rates, a total after-tax rate of

7 return is developed. Because the utility must pay dividends associated with

8 common equity and preferred stock with after-tax funds, the post-tax returns

9 are then converted to pre-tax returns by grossing up the common equity and

10 preferred stock dividends for taxes. The final pre-tax return is then

11 multiplied by the Company's rate base in order to develop the amount of

12 money that customers must pay to the utility for return on investment and

13 tax payments associated with that investment.

14

15 Q. **HOW DOES CAPITAL STRUCTURE IMPACT THIS**

16 **CALCULATION?**

17 A. Costs to consumers are greater when the utility finances a higher proportion

18 of its rate base investment with common equity and preferred stock versus

19 long-term debt. However, long-term debt, which is first in line for

20 repayment, imposes a contractual obligation to make fixed payments on a

21 pre-established schedule, as opposed to common equity where no similar

22 obligations exist.

23

1 **Q.   WHY SHOULD THE COMMISSION BE CONCERNED ABOUT**

2 **HOW THE COMPANY FINANCES ITS RATE BASE**

3 **INVESTMENT?**

4 A.   There are two reasons that the Commission should be concerned about how

5 PSNC finances its rate base investment. First, PSNC's cost of common

6 equity is higher than the cost of long-term debt, meaning that a relatively

7 higher equity percentage will translate into higher costs to PSNC's

8 customers without any corresponding improvement in quality of service.

9 Long-term debt is a financial promise made by a company and is carried

10 as a liability on the company's books. Common stock is ownership in the

11 company. Due to the contingent nature of an equity investment, common

12 stockholders require higher rates of return to compensate them for the extra

13 risk involved in owning part of the company versus having a more senior

14 claim against the company's assets.

15 The second reason the Commission should be concerned about

16 PSNC's capital structure is due to the tax treatment of debt versus common

17 equity. Corporations can deduct payments associated with debt financing.

18 Corporations are not, however, allowed to deduct common stock dividend

19 payments for tax purposes. All dividend payments must be made with

20 after-tax funds, which are more expensive than pre-tax funds. The

21 regulatory process allows utilities to recover reasonable and prudent

22 expenses, including taxes, within their rates. Accordingly, if a utility is

23 allowed to use a capital structure for ratemaking purposes that is top-heavy

1   in common stock, customers will be forced to cover the higher income tax

2   burden, which can result in unjust, unreasonable, and unnecessarily high

3   rates. Setting rates through the use of a capital structure that is weighted

4   too heavily in common equity violates the fundamental principles of utility

5   regulation: rates must be just and reasonable and only high enough to

6   support the utility's provision of safe, adequate, and reliable service at a

7   fair price.

8

9   Q.   DOES A UTILITY SUBSIDIARY LIKE PSNC SET ITS OWN

10   CAPITAL STRUCTURE?

11   A.   No. PSNC's stock is owned by Dominion, which is the parent holding

12   company for several utilities. As the owner of these utilities, Dominion is

13   able to set the capital structure of these utilities as it sees fit. For example,

14   Dominion, which had a common equity ratio at the conclusion of 2020 of

15   39.50%,[32] could issue debt and then infuse this debt into PSNC and call it

16   common equity. In such a circumstance, Dominion could use the regulatory

17   system to issue debt at an interest rate of approximately 3.5% and then

18   invest those funds into PSNC as common equity to produce a pre-tax rate

19   of return for stockholders of over 9%. The alternative to Dominion is to

20   issue debt and then support that debt issuance with debt from PSNC. In

---

[32] *The Value Line Investment Survey*, August 13, 2021 (Electric Utilities East).

1   either event, the capital structure of PSNC is, for the most part, at the

2   discretion of its parent company, Dominion.

3

4 **Q.** **HOW DOES A UTILITY'S SELECTION OF EQUITY VERSUS**

5   **DEBT IMPACT RATEPAYERS?**

6 **A.** Entities in more competitive markets have a profit motive that provides an

7   incentive for such entities to select the most efficient capitalization ratio.

8   However, utilities operating in monopolistic, rate-regulated service

9   territories have an incentive to maximize the amount of common equity in

10   their capital structure, to increase revenues and, correspondingly, the utility

11   profit. Rate-regulated utilities should only be allowed to recover in rates a

12   revenue requirement derived from a capitalization ratio that allows the

13   utility to provide reliable service at the least cost. Therefore, finding the

14   right balance between debt and equity is critical.

15   If a utility issues more common equity and less debt for a certain

16   project, the rates could potentially be set at an unbalanced debt to equity

17   level. This could result in the ratepayer paying higher rates to support a

18   capital structure that is neither prudent nor reasonable to support the

19   company's current credit rating or the company's adequate access to the

20   capital markets. It is also important to recognize how rate levels affect

21   economic development. The reality in today's economy is that economic

22   development opportunities for large loads occur in places where costs are

Direct Testimony of Kevin W. O'Donnell   Page 32
on behalf of Carolina Utility Customers Association
Docket No. G-5, Sub 632

1   lower. A utility with unduly high rates will, all else being equal, cause its

2   service territory to lose out on economic development opportunities.

3   If, on the other hand, the utility incurs too much debt, the utility's

4   capitalization ratios present excess financial risk to the capital markets,

5   thereby driving up the costs required by the equity markets to compensate

6   for the added risk. In this case, the consumer would also be negatively

7   impacted because the cost the consumer must pay the utility for accessing

8   the capital markets would be higher than the cost would be using a less debt-

9   leveraged capital structure.

10   One role of regulation is to balance the needs of the capital markets,

11   including utility stockholders, with the needs of ratepayers. Either too much

12   equity or too much debt can harm both the stockholders of the corporation,

13   as well as the consuming public.

14

15   **Q.   HAVE   YOU   REVIEWED   THE   CAPITAL   STRUCTURE**

16   **REQUESTED BY THE COMPANY IN THIS PROCEEDING?**

17   A.   Yes, I have.

18

19   **Q.   WHAT CAPITAL STRUCTURE IS THE COMPANY PROPOSING**

20   **IN THIS CASE?**

21   A.   PSNC has proposed the following capital structure:

22

1

2 **Table 3**: PSNC's Requested Capital Structure

	Capital Structure Ratio (%)		Cost Rate (%)	Weighted Cost Rate (%)
	Witness Nelson's Direct Testimony, page 3, **a**	**c = a / b**	Witness Spaulding's Direct Testimony, Exhibit 6 page 2, **d**	**= c * d**
Long-Term Debt	43.79%	43.8%	4.59%	2.01%
Short-Term Debt	1.33%	1.3%	0.24%	0.00%
Common Equity	54.88%	54.9%	10.25%	5.63%
Rx	100.00%	100.00%		7.64%

3

4 **Q.   WHAT IS THE AVERAGE COMMON EQUITY RATIO OF THE**

5   **COMPANIES IN YOUR PROXY GROUP?**

6 A.   **Table 4** below shows the average common equity ratio of each utility in my

7   gas comparable company proxy group, as well as for Dominion (*i.e.,*

8   PSNC's parent company).

9

1 | **Table 4**: Proxy Group Equity Ratio[33]

	2019	2020	2021E	2024E–2026E
Company	**Ratio**	**Ratio**	**Ratio**	**Ratio**
Atmos Energy	62.00%	60.00%	52.00%	60.00%
Chesapeake Utilities	56.10%	57.80%	57.00%	60.00%
New Jersey Resources	50.20%	44.90%	46.00%	47.00%
NiSource Inc.	36.90%	32.90%	40.00%	40.00%
Northwest Natural	51.80%	50.80%	51.00%	57.00%
ONE Gas Inc	62.30%	58.50%	36.00%	53.00%
South Jersey Inds	40.80%	37.40%	37.00%	39.50%
Southwest Gas	52.10%	49.50%	49.50%	52.00%
Spire Inc	55.00%	51.00%	51.00%	55.00%
UGI Corp	39.80%	40.80%	43.50%	50.00%
Average	**50.70%**	**48.36%**	**46.30%**	**51.35%**
Dominion Energy[34]	45.00%	39.50%	39.00%	41.00%

2   As can be seen in the table above, the average common equity ratio for the

3   proxy group in 2019 was 50.70%, the average common equity ratio for 2020

4   was 48.36%, the average expected common equity ratio for 2021 is 46.30%,

5   and the average expected common equity ratio from 2024–2026 is 51.35%.

6   Additionally, the respective ratios for Dominion for the same periods noted

7   above are 45.00%, 39.50%, 39.00% and 41.00%, respectively. Each of these

8   metrics is below the Company's requested equity ratio in this case of

9   54.88%

10

---

[33] *The Value Line Investment Survey*, May 28, 2021 (Natural Gas Utilities).
[34] *The Value Line Investment Survey*, May 14, 2021 (Electric Utilities East).

1 **Q. WHAT IS THE AVERAGE COMMON EQUITY RATIO GRANTED**

2 **BY UTILITY REGULATORS FOR GAS UTILITIES ACROSS THE**

3 **UNITED STATES?**

4 A. Note that I have sourced the average common equity ratio values granted

5 by utility regulators for gas utilities from across the country from *S&P*

6 *Global*. In my research into these numbers, I found that four states included

7 within the overall average value of gas utilities across the country report

8 their allowed common equity ratios on an all capital sources basis (*i.e.,* LT

9 Debt, ST Debt, Common Equity, Preferred Stock, Customer Deposits,

10 Deferred Income Taxes, Investment Tax Credits). As such, I have removed

11 these four states (*i.e.,* Arkansas, Florida, Indiana and Michigan) from these

12 numbers to ensure that each of the states included in this average report their

13 allowed common equity ratio percentages only on investor sources of

14 capital (*i.e.,* LT Debt, ST Debt, Common Equity). I wanted to remove these

15 four states from the overall average to ensure that the average represented

16 an appropriate comparison, given that PSNC's requested equity ratio in this

17 case of 54.88% is based solely off of investor sources of capital.

18   The resulting average common equity ratio granted by regulators for

19 natural gas utilities for all states on an investor-sources basis in 2020 was

20 52.34%.[35]

21

---

[35] S&P Global Market Intelligence Rate Case Statistics; Date Range: 15 Years; Service
Type: Natural Gas; Chart Items: Common Equity to Total Capital, Return on Equity (last
accessed June 21, 2021).

1 **Q.   WHAT   COMMON   EQUITY   RATIOS   HAVE   STATE**

2 **REGULATORS ACROSS THE UNITED STATES GRANTED TO**

3 **NATURAL GAS UTILITIES OVER THE PAST 15 YEARS?**

4 A.   State regulators have been quite consistent in their rulings in natural gas

5   cases for allowed common equity ratios based on investor sources of capital

6   over the past 15 years. From 2006 through 2020, common equity ratios have

7   ranged from 48.05% to 52.71%, with an average of 50.85%. If one were to

8   evaluate this data over the previous 12 years, the average common equity

9   ratio over this period is 51.16%, the average ratio over the previous 10 years

10   is 51.61%, and the average ratio over the previous 8 years is 51.56%. In

11   **Chart 4** below I have presented the average annual common equity ratio

12   granted by state regulators for each year over the past 15 years.

13

1

2 **Chart 4**: Common Equity Ratio Granted by State Regulators (2006–2020)[36]

3

Average Allowed Annual Common Equity Ratio (%) Granted by State Regulators for Nat Gas Utilities

Witness Nelson's Recommendation

Annual Average Nat Gas Utility CE to Total Capital Ratio (Without AR, FL, IN, MI)
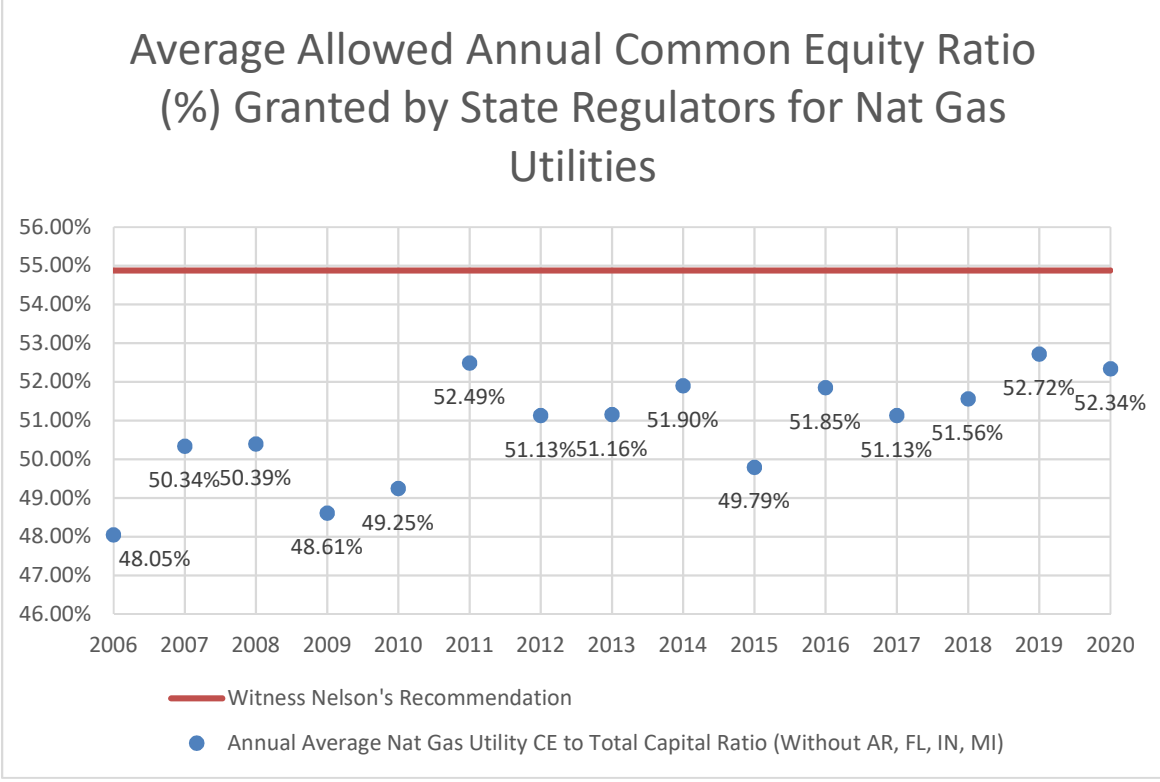
4

5

6 **Q.** **WHAT IS THE CAPITAL STRUCTURE OF DOMINION, THE**

7 **PARENT HOLDING COMPANY OF PSNC?**

8 A. As shown in **Table 4** above, the Dominion equity ratio for 2020 was

9 39.00%, and is expected by analysts to be at 41.00% through the 2024E-

10 2026E time period.

11

---

[36] *Id.*

1   **Q.   IS THE CAPITAL STRUCTURE OF PSNC RELATED TO THE**

2   **CAPITAL STRUCTURE OF DOMINION?**

3   A.   Yes. Dominion controls the amount of debt and equity in the PSNC capital

4   structure. The fact that PSNC is asking for a very high equity ratio of nearly

5   55%, while Dominion had a 39.00% equity ratio at the end of 2020,[37]

6   indicates that the holding company is using double-leverage to increase

7   profits from its regulated subsidiary, PSNC.

8

9   **Q.   PLEASE EXPLAIN THE CONCEPT OF DOUBLE LEVERAGE.**

10   A.   Double leverage occurs when a utility parent company issues debt and then

11   infuses that debt into the regulated subsidiary as common equity. The reason

12   for such action is that equity is more expensive than debt and it is grossed

13   up for taxes, meaning that the returns that Dominion can collect from PSNC

14   is far greater than the cost of issuing the debt.

15

16   **Q.   PLEASE PROVIDE AN EXAMPLE OF DOUBLE-LEVERAGE.**

17   A.   An example would be a parent holding company issuing debt at 3.5% and

18   then infusing the debt proceeds into the utility subsidiary as equity where

19   the utility earns an allowed ROE of 9.0%. Keep in mind that the regulated

20   utility is allowed to recover its income taxes so the 9.0% is actually grossed

21   up to approximately 12.5% to pay for income taxes. As a result, through the

---

[37] *The Value Line Investment Survey*, August 13, 2021.

1   regulatory process, Dominion can issue debt at 3.5% and turn it into 12.5%

2   through double-leverage through its relationship with its subsidiaries.

3

4   Q.   **PLEASE SUMMARIZE YOUR FINDINGS IN REGARD TO THE**

5   **REQUESTED EQUITY RATIO IN THIS CASE RELATIVE TO THE**

6   **EQUITY RATIO OF OTHER GAS UTILITIES.**

7   A.   **Table 5** below provides a summary of how PSNC's request in this case

8   compares to the average equity ratio of the proxy group companies, the

9   common equity ratio of PSNC's parent company, Dominion, and the

10   average equity ratio allowed by state regulators to gas utilities across the

11   country in 2020 and the previous 15-year period.

Table 5: Common Equity Ratio Comparison

PSNC's Eq Ratio Request	54.88%
CUCA Eq Ratio Recommendation	50.00%
2019 O'Donnell Proxy Group Actual Eq Ratio Average	50.70%
2020 O'Donnell Proxy Group Actual Eq Ratio Average	48.36%
2021E O'Donnell Proxy Group Expected Eq Ratio Average	46.30%
2024E – 2026E O'Donnell Proxy Group Expected Eq Ratio Average	51.35%
2019 Dominion Actual Eq Ratio Average	45.00%
2020 Dominion Actual Eq Ratio Average	39.50%
2021E Dominion Expected Eq Ratio Average	39.00%
2024E – 2026E Dominion Expected Eq Ratio Average	41.00%
2020 Average Annual Regulator Nat Gas Granted Eq Ratio	52.34%
2006 – 2020 Average Annual Regulator Nat Gas Granted Eq Ratio	50.85%

12 Q.   **GIVEN THE ABOVE, DO YOU BELIEVE THAT THE CAPITAL**

13   **STRUCTURE   PROPOSED   BY   PSNC   IN   THIS   CASE   IS**

14   **APPROPRIATE FOR RATEMAKING PURPOSES?**

1   A.   No. The requested capital structure for PSNC of 54.88% is not as reasonable

2   as a recommended capital structure of 50.00% for ratemaking purposes.

3   Nothing in the make-up of PSNC suggests that it requires an equity ratio in

4   a range that would place it higher than that of the companies within its

5   comparable proxy group. Indeed, some of the companies in the proxy group

6   are involved in a wider array of business activities that involve more

7   business risk than a utility's distribution of natural gas within its monopoly

8   service territory. As such, if anything, the financial risk (as represented by

9   the equity ratio) of the comparable company proxy group should be higher,

10   not lower, than a traditional gas utility such as PSNC. Customers of PSNC

11   should not pay higher rates associated with a capital structure that consists

12   of so much common equity which, as previously discussed, is more

13   expensive than debt.

14

15   **Q.**   **WHAT CAPITAL STRUCTURE DO YOU RECOMMEND THIS**

16   **COMMISSION ADOPT FOR USE IN SETTING THE REVENUE**

17   **REQUIREMENT IN THIS CASE?**

18   A.   My recommendation is for the Commission to employ a capital structure

19   that contains an equity ratio that is more equivalent to 50%. Specifically,

20   my recommended capital structure and embedded cost of debt is as follows:

21

Direct Testimony of Kevin W. O'Donnell   Page 41
on behalf of Carolina Utility Customers Association
Docket No. G-5, Sub 632

1   **Table 6**:   CUCA Recommended Capital Structure

CUCA's Overall Recommendation			
Component	Ratio (%)	Cost Rate (%)	Weighted Cost Rate (%)
Long-Term Debt	48.53%	4.43%	2.15%
Short-Term Debt	1.47%	0.24%	0.00%
Common Equity	50.00%	9.00%	4.50%
Total Capitalization	**100.00%**		**6.65%**

2

3   Note that the CUCA recommended overall debt ratio of 50% was split into

4   a long-term debt ratio of 48.53% and short-term debt ratio of 1.47%. This

5   split was based upon the same ratio used by the Company for its split of its

6   recommended overall debt ratio of 45.12% into a long-term debt ratio of

7   48.53% and a short-term debt ratio of 1.47%. As such, I have used those

8   same, specific ratios of long-term debt to total debt and short-term debt to

9   total debt to split out CUCA's recommended overall 50% debt portion of

10   the capital structure between short-term and long-term debt.

11

12   **Q.   IF THE COMMISSION ADOPTS THE COMPANY'S CAPITAL**

13   **STRUCTURE   FOR   RATEMAKING,   WHAT   OTHER**

14   **ADJUSTMENTS SHOULD IT MAKE?**

15   A.   Note that my specific equity recommendations in this proceeding based on

16   the analyses performed is a capital structure weighted 50% to common

17   equity, along with a 9.00% ROE, as shown in **Table 2**. However, if the

18   Commission were to adopt a capital structure for PSNC at the level

19   requested by the Company of 54.88%, the Commission should recognize

1   the lower financial risk applicable to PSNC with such an equity ratio, and

2   accordingly reduce the allowed ROE in this proceeding.

3

4   **VI.   <u>COST OF DEBT</u>**

5   **Q.   DO YOU ACCEPT THE COMPANY'S COST OF LONG-TERM**

6   **DEBT?**

7   A.   No. I am recommending a slightly lower cost of long-term debt for PSNC

8   due to a credit rating downgraded that stems from the decision of Dominion

9   Resources to purchase SCANA Corp. As part of the merger agreement that

10   PSNC/Dominion entered into with the Public Staff of the NCUC when

11   Dominion acquired SCANA, PSNC agreed to a "hold harmless" provision

12   in regard to higher interest costs that may result from a credit downgrade

13   due to the acquisition.

14   The merger agreement, which the NCUC approved, also contained

15   a "stay out" provision that prevented PSNC from raising rates prior to

16   November 2021.   On January 31, 2020, PSNC's credit rating was

17   downgraded from A3 to Baa1. In its report announcing the downgrade,

18   Moody's cited declining credit metrics resulting from capital expenditures

19   being financed with long-term debt and the stay-out provision[38] which

20   stemmed from the acquisition of SCANA by Dominion.

---

[38] Moody's Investors Services, Rating Action: Moody's upgrades SCANA to
Baa3 and DESC to Baa2; downgrades PSNC to Baa1. All outlooks are stable.

1   PSNC agreed as a merger condition not to charge consumers a

2   higher rate of interest that may have resulted from the merger. A higher rate

3   of interest for PSNC bonds issued after January 31, 2020 has occurred so I

4   have adjusted the $200 million debt issuance of PSNC issued on March 30,

5   2020. Specifically, I reduced the coupon rate of that issuance by 17 basis

6   points such that the embedded cost of debt in my recommendation is 4.55%.

7

8 Q.   **PLEASE EXPLAIN HOW YOU ARRIVED AT THE DECISION TO**

9   **REDUCE PSNC'S MARCH 30, 2020 DEBT ISSUANCE BY 17 BASIS**

10   **POINTS.**

11 A.   Prior to Janunary 31, 2020, PSNC had a Moody's credit rating of "A." After

12   the downgrade, PSNC had a Moody's credit rating of "Baa1." Naturally, a

13   company with a credit rating of "A" is going to pay less than a company

14   with a credit rating of "Baa1." The amount of the interest rate differential

15   between two credit ratings ("A" vs. "Baa1") is called a yield spread.

16   The Mergent Bond Record is a financial publication that tracks

17   yields by corresponding credit ratings. By comparing "A" to "Baa1" rated

18   bonds, I was able to determine an average yield spread over various time

19   periods. The first time period I examined was from January 2011 through

20   May 2021. Over this time period, the average spread was 54 basis points. I

21   next examined the actual month that the March 2020 PSNC debt issuance

22   was placed into the market and found the spread between the "A" and

23   "Baa1" bonds was 46 basis points. I normally do not recommend point

1 months in such an analysis but, given the Covid pandemic that was

2 beginning to impact the markets in March 2020, I did examine the spread

3 for that month.

4   The average of the two examined periods was 50 basis points (54

5 basis points for January 2011 through May 2021, and 46 basis point in

6 March 2020). Given that there are 3 notches in a single credit rating, I

7 divided the 50 basis points by 3 to arrive at a decrement of 17 basis points.

8 My calculations can be seen in the table below.

9   **Table 7:** Calculation of Yield Spread Differential

	Public Utility Bonds		
Period Examined	**A-Rated**	**Baa-Rated**	**Spread**
Jan 2011 thru May, 2021	4.06	4.61	0.54
March 2020	3.50	3.96	0.46
Average Spread			**0.50**
One-Notch Spread			0.17

10

11 I reduced the PSNC March 2020 bond issuance by 17 basis points and

12 recalculated the embedded cost of debt for PSNC to be 4.43%. As a result,

13 I am recommending an embedded cost of debt of 4.43% in this proceeding.

Direct Testimony of Kevin W. O'Donnell   Page 45
on behalf of Carolina Utility Customers Association
Docket No. G-5, Sub 632

VII.   COST OF COMMON EQUITY

1

2   **Q.**   **PLEASE EXPLAIN HOW THE ISSUE OF DETERMINING AN**

3   **APPROPRIATE RETURN ON A UTILITY'S COMMON EQUITY**

4   **INVESTMENT FITS INTO A REGULATORY AUTHORITY'S**

5   **DETERMINATION OF JUST AND REASONABLE RATES FOR**

6   **THE UTILITY.**

7   A.   In North Carolina, as in virtually all regulatory jurisdictions, a utility's rates

8   must be *"just and reasonable."*[39] Thus, regulation recognizes that utilities

9   are entitled to an opportunity to recover the reasonable and prudent costs of

10   providing service, and the opportunity to earn a just and reasonable rate of

11   return on the capital invested in a utility's facilities, such as natural gas

12   distribution equipment, buildings, vehicles, and similar long-lived capital

13   assets.

14

15   **Q.**   **HOW DO REGULATORY AUTHORITIES DETERMINE WHAT**

16   **WOULD CONSTITUTE A JUST AND REASONABLE RATE OF**

17   **RETURN ON EQUITY FOR A UTILITY COMPANY?**

18   A.   Regulatory commissions and boards, as well as financial industry analysts,

19   institutional investors, and individual investors, use different analytical

20   models and methodologies to estimate/calculate reasonable rates of return

21   on equity. Among the measures used are the Discounted Cash Flow

---

[39] https://www.ncuc.net/Aboutncuc.html

1   ("DCF") Model, the Comparable Earnings Analysis ("CEA"), and the

2   Capital Asset Pricing Model ("CAPM"). I believe the most useful

3   methodology is the DCF analysis, but I have also presented the CEA and

4   the CAPM within this testimony as checks for my DCF results.

5

6 **Q.** **CAN YOU EXPLAIN WHY REGULATORY AUTHORITIES AND**

7   **FINANCIAL   ANALYSTS   NEED   TO   USE   THESE**

8   **METHODOLOGIES TO DERIVE A COMPANY'S ESTIMATED**

9   **RATE OF RETURN ON EQUITY?**

10 A.   Yes. There is no direct, observable way to determine the rate of return

11   required by equity investors in any company or group of companies.

12   Investors must make do with indications from market data and analyst

13   predictions to estimate the appropriate price of a share. The principal and

14   most reliable methodology for obtaining these indications is the DCF

15   Model. Other procedures, such as the CEA and the CAPM, are less reliable

16   than the DCF Model in my opinion.

17

18 **Q.** **PLEASE EXPLAIN WHY YOU BELIEVE THE DCF MODEL IS**

19   **SUPERIOR TO THE CEA AND CAPM APPROACHES.**

20 A.   The DCF Model is an investor-driven model that incorporates current

21   investor expectations based on daily and ongoing market prices. When a

22   situation develops in a company that affects its earnings and/or perceived

23   risk level, the price of the stock adjusts to reflect those developments. Since

1   the stock price is a major component in the DCF Model, the change in risk

2   level and/or earnings expectations is captured in the investor return

3   requirement with either an upward or downward movement.

4   The CEA is based on earned returns from book equity, not market

5   equity, as well as a comparison of what other commissions or boards across

6   the country are awarding regulated utilities. There is no direct and

7   immediate stockholder input into the CEA and, as a fault, that model lacks

8   a clear and unmistaken link to stockholder expectations.

9   The CAPM suffers, in my opinion, from the same inherent issues as

10   found within the CEA in that there is not a direct and immediate link from

11   stock market prices to the CAPM result. The Beta in the CAPM can reflect

12   changes in the ROE, but the delay can oftentimes make the CAPM results

13   of little-or-no value.

14

15   **Q.   WHY DID YOU NOT USE THE RISK PREMIUM MODEL?**

16   A.   The Risk Premium Model is very similar in nature to the CAPM. In both

17   models, one examines risk premiums, but from varying comparison points.

18   The CAPM considers the risk premium relative to the risk-free rate whereas

19   the risk premium model often develops the risk premium relative to utility

20   bond yields.

21

22   **Q.   COULD YOU PERFORM A COST OF EQUITY ANALYSIS**

23   **DIRECTLY ON PSNC?**

Direct Testimony of Kevin W. O'Donnell   Page 48
on behalf of Carolina Utility Customers Association
Docket No. G-5, Sub 632

1   A.   No. PSNC is ultimately a subsidiary of Dominion. Note however that while

2   Dominion is classified as an electric utility by *Value Line* within their

3   industry groupings, it is also considered to be a holding company, which

4   owns natural gas operations as well, such as those managed by PSNC.

5

6   **A.   Discounted Cash Flow ("DCF") Model**

7   **Q.   PLEASE EXPLAIN THE DISCOUNTED CASH FLOW MODEL.**

8   A.   The DCF Model is a widely used method for estimating an investor's

9   required return on a firm's common equity. I have worked within the utility

10   industry since 1984. In my experience, first with the Public Staff of the

11   North Carolina Utilities Commission and later as a consultant, I have seen

12   the DCF Model used much more often than any other method for estimating

13   the appropriate return on common equity. Consumer advocate witnesses,

14   utility witnesses, and other intervenor witnesses have used the DCF Model,

15   either by itself or in conjunction with other methods such as the CEA or the

16   CAPM, in their analyses.

17   The DCF Model is based on the concept that the price which the

18   investor is willing to pay for a stock is the discounted present value (*i.e.,* its

19   present worth) of what the investor expects to receive in the future as a result

20   of purchasing that stock. This return to the investor is in the form of future

21   dividends and price appreciation. However, price appreciation is only

22   realized when the investor sells the stock, and subsequent purchasers are

Direct Testimony of Kevin W. O'Donnell   Page 49
on behalf of Carolina Utility Customers Association
Docket No. G-5, Sub 632

1   presumably also focused on dividend growth following their purchase of

2   the stock. Mathematically, the relationship is:

3

4   Let D   =   dividends per share in the initial future period

5   g   =   expected growth rate in dividends

6   k   =   cost of equity capital

7   P   =   price of asset (or present value of a future stream of

8   dividends)

9

10

11   $$\text{then } P = \frac{D}{(1+k)} + \frac{D(1+g)}{(1+k)^2} + \frac{D(1+g)}{(1+k)^3} + \ldots + \frac{D(1+g)}{(1+k)^t}$$

12

13   This equation represents the amount (P) an investor will be willing to pay

14   *today* for a share of common equity with a given dividend stream over (t)

15   periods.

16   Reducing the formula to an infinite geometric series, we have:

17

18

19   $$P = \frac{D}{k-g}$$

20

21   Solving for k yields:

22

23   $$k = \frac{D}{P} + g$$

Direct Testimony of Kevin W. O'Donnell   Page 50
on behalf of Carolina Utility Customers Association
Docket No. G-5, Sub 632

1 **Q.** **DO INVESTORS IN UTILITY COMMON STOCKS REALLY USE**

2 **THE DCF MODEL IN MAKING INVESTMENT DECISIONS?**

3 A. Yes, I believe that they do. There are two primary reasons for my

4 conclusion. First, there is much literature that supports the fact that, while

5 emotional or so-called "irrational" behavior in the short term may affect

6 (and has affected) share prices, over the long term, a company's financial

7 fundamentals drive the market.[40] Secondly, analysts give great weight to

8 earnings, dividend, and book value growth in formulating their

9 recommendations to clients.

10 Thus, in today's market environment, investors will likely calculate

11 (or seek a calculation of) the amount of funds they will receive relative to

12 the initial investment, which is defined as the current dividend yield, as well

13 as the amount of funds that the investor can expect in the future from the

14 growth in the dividend. The combination of the current dividend yield and

15 the future growth in dividends is central to the basic tenet of the DCF Model.

16 **Q.** **IS THE DCF FORMULA STRAIGHTFORWARD?**

---

[40] *See*, *e.g.*, Tim Koller, Marc Goedhart, & David Wessels, *Valuation: Measuring and Managing the Value of Companies* (4th ed.); Tim Koller, Marc Goedhart, & David Wessels, *Do fundamentals—or emotions—drive the stock market?*, McKinsey & Company Inc. (Mar. 1, 2005) ("Provided that a company's share price eventually returns to its intrinsic value in the long run, managers would benefit from using a discounted-cash-flow approach for strategic decisions. What should matter is the long-term behavior of the share price of a company, not whether it is undervalued by 5 or 10 percent at any given time."), *available at* http://www.mckinsey.com/business-functions/strategy-and-corporate-finance/our-insights/do-fundamentalsor-emotionsdrive-the-stock-market (last accessed Mar. 2, 2016); *see also* Joe Weisenthal, *And Now We Know For Sure What's Really Been Driving The Market The Last Few Years...*, Business Insider (Apr. 15, 2021), *available at* http://www.businessinsider.com/what-drives-the-stock-market-2012-8 (last accessed March 2, 2016).

1 A.   Yes. While the DCF formula as outlined above may appear complicated, it

2   is a relatively straightforward model. To determine the total rate of return

3   one expects from investing in a particular equity security, the investor adds

4   the dividend yield, which they expect to receive in the future, to the

5   expected growth in dividends over time.

6

7 Q.   **CAN YOU PROVIDE AN EXAMPLE?**

8 A.   Yes. If investors expect a current dividend yield of 5%, and also expect that

9   dividends will grow at 4%, then the DCF model indicates that investors

10   would buy the utility's common stock if it provided an ROE of 9%.

11

12 Q.   **WHAT DIVIDEND YIELD DO YOU THINK IS APPROPRIATE**

13   **FOR USE IN THE DCF MODEL?**

14 A.   I have calculated the appropriate dividend yield by averaging the dividend

15   yield expected to be paid over the next 12 months for each comparable

16   company, as reported by the *Value Line Investment Survey*. The period

17   covered is from May 21, 2021, through August 13, 2021. To study the short-

18   term, as well as long-term, movements in dividend yields, I examined the

19   13-week, 4-week, and 1-week dividend yields for my comparable group.

20   These results appear in **Exhibit KWO-2** and show an average dividend

21   yield for the 13-week period of 3.3%, the 4-week period of 3.3%, and the

22   1-week period of 3.3% for the comparable company proxy group. I have

23   also presented the results for Dominion within **Exhibit KWO-2** as PSNC's

1   parent company. The values for Dominion over these same periods were

2   4.0%, 4.1%, and 4.2%, respectively.

3

4 Q. PLEASE EXPLAIN HOW YOU DEVELOPED THE DIVIDEND

5   YIELD RANGES DISCUSSED ABOVE.

6 A. I developed the dividend yield range for my comparable company proxy

7   group by averaging each company's *Value Line* forecasted 12-month

8   dividend yield over the above-stated periods, as well as examining the most

9   recent forecasted 12-month dividend yield reported by *Value Line* for each

10   company. I averaged the dividend yield over multiple time periods in order

11   to minimize the possibility of an isolated event skewing the DCF results.

12

13 Q. HOW DID YOU DERIVE THE EXPECTED DIVIDEND GROWTH

14   RATE?

15 A. I used several methods in determining the growth in dividends that investors

16   expect. These methods are (1) historical EPS, DPS, and BPS growth rates,

17   (2) forecasted EPS, DPS, and BPS growth rates, and (3) the plowback ratio.

18

19 Q. PLEASE DESCRIBE THE FIRST METHOD YOU USED TO

20   DEVELOP THE EXPECTED DIVIDEND GROWTH RATE.

21 A. A key component in the DCF Model is the expected growth in dividends.

22   In analyzing the proper dividend growth rate to use in the DCF Model, the

23   analyst must consider how dividends are created. Since over the long-term

---

1   dividends cannot be paid out without a corporation first earning the funds

2   paid out, earnings growth is a key element in analyzing what if any growth

3   can be expected in dividends. Similarly, what remains in a corporation after

4   it pays its dividend is reinvested, or "plowed back," into a corporation in

5   order to generate future growth. As a result, book value growth is another

6   element that, in my opinion, must be considered in analyzing a corporation's

7   expected dividend growth.

8   Therefore, to analyze the expected growth in dividends, I believe the

9   analyst should also examine the historical record of past earnings,

10   dividends, and book value. Hence, the first method I used to estimate the

11   expected growth rate was to analyze the historical 10-year and 5-year

12   compound annual rates of change for earnings per share ("EPS"), dividends

13   per share ("DPS"), and book value per share ("BPS") as reported by *Value*

14   *Line* for each of the relevant companies. My reasoning for also utilizing

15   historical growth rates for EPS, DPS, and BPS, rather than solely relying

16   upon forecasted growth rates, is that historical growth rates capture the

17   actual growth of the various rates over time based upon a Company's

18   reported results. In contrast, forecasted growth rates are derived <u>entirely</u>

19   from analyst projections, which vary from analyst to analyst, and which also

20   have a tendency to be overstated. As such, I have always found it important

21   to use both historical and forecasted growth rates.

22

1 **Q. DO ALL ANALYSTS UTILIZE HISTORICAL GROWTH RATES**

2 **WITHIN THEIR DCF MODELS?**

3 A. No, certain analysts do not present historical growth rates in their DCF

4 analyses. This is true for Ms. Nelson, as evidenced through her DCF

5 calculations on page 1 of her **Schedule DWD-2**, where Ms. Nelson only

6 factored forecasted growth rates from *Value Line*, *Zack's*, *Yahoo! Finance*,

7 and *Bloomberg* into her DCF analysis.

8 I believe that analysts who do not present the readily available

9 historical data fail to provide the full extent of information on which

10 investors base their expectations. Both historical growth rates and

11 forecasted growth rates provide valuable data for what one can expect the

12 ultimate growth rate for an individual stock will be. To present the full

13 breadth of the available information, both historical and forecasted growth

14 rates should be used. I believe this to be even more important given the

15 current economic climate and market uncertainty caused by the COVID-19

16 pandemic. By focusing her entire analysis on forecasted growth rates, Ms.

17 Nelson is ignoring the value in historical growth rates that are readily

18 available.

19 I note that *Value Line* is the most recognized investment publication

20 in the industry and, as such, is used by professional money managers,

21 financial analysts, and individual investors worldwide. A prudent investor

22 tries to examine all aspects of an enterprise's performance when making a

23 capital investment decision. As such, it is only practical to examine

1   historical growth rates, in addition to the forecasted growth rates, for the

2   corporation on which the analysis is being performed.

3   **Exhibit KWO-2** lists the historical and forecasted growth rates for

4   the comparable company proxy group, and **Exhibit KWO-5, page 1** lists

5   the related calculations and results for this method, with the historical and

6   forecasted growth rate values being added to the dividend yield averages

7   for the time periods of 1-week, 4-weeks, and 13-weeks. Also note that

8   **Exhibit KWO-6**, **page 1** shows these results should this analysis be

9   performed directly on PSNC's parent company, Dominion.

10

11   **Q.   SHOULD ONLY EARNINGS ("EPS") GROWTH RATES BE**

12   **CONSIDERED IN THE DCF METHODOLOGY?**

13   A.   No, I do not believe it is appropriate to strictly rely upon EPS growth rates

14   on either an historical or forecasted basis. Since the DCF formula is

15   dependent on future *dividend* growth, I believe that it would be inaccurate

16   to use only earnings (*i.e.,* EPS) growth rates in the DCF. Doing so would

17   produce unrealistically high return on equity numbers that cannot be

18   sustained indefinitely, which I provide evidence for and discuss in greater

19   detail below within **Section VII-A**: "Review of Ms. Nelson' DCF

20   Analysis."

21   To mitigate this problem, I have presented EPS, DPS, and BPS

22   figures and have explained my rationale for arriving at the corresponding

1   growth rates. I believe it is incumbent upon every analyst to present such a

2   robust analysis.

3

4   **Q.   PLEASE DESCRIBE THE SECOND METHOD YOU USED TO**

5   **DEVELOP THE EXPECTED DIVIDEND GROWTH RATE.**

6   A.   The second method I used was forecasted growth rates. I obtained

7   forecasted growth rates from the following data sources:

8   •   Forecasted compound annual rates of change for EPS, DPS, and BPS as

9   provided by *Value Line*;

10   •   Average "plowback" percent retained to common equity as provided by

11   *Value Line*;

12   •   Forecasted 3-year projected rate of change for EPS as recorded by the

13   *Center for Financial Research and Analysis* (*i.e., CFRA*), a publication

14   of *S&P Global Market Intelligence*; and

15   •   Forecasted LT 3-5-year EPS growth rates, as provided by *Charles*

16   *Schwab & Co* (*i.e., Schwab*). This forecasted rate of change is not a

17   forecast developed solely by *Schwab*, but is, instead, a compilation of

18   forecasts by industry analysts.

19
20   As such, the data sources referenced above all represent forecasted growth

21   rates, but are sourced from three separate financial evaluation agencies,

22   *Value Line, CFRA,* and *Schwab*.

1   **Exhibit KWO-2** lists the forecasted growth rates for the comparable

2   company proxy group and **Exhibit KWO-5, page 1** lists the related

3   calculations and results for this method with the forecasted growth rate

4   values being added to the dividend yield averages for the time periods of 1-

5   week, 4-weeks, and 13-weeks. Also note that **Exhibit KWO-6**, **page 1**

6   shows these results should this analysis be performed directly on PSNC's

7   parent company, Dominion. My ultimate DCF result range can be found on

8   **Exhibit KWO-1**.

9

10 **Q.**   **PLEASE DESCRIBE THE THIRD METHOD YOU USED TO**

11   **DEVELOP THE EXPECTED DIVIDEND GROWTH RATE.**

12 **A.**   The third method I used is an analysis commonly referred to as the

13   "plowback ratio" method. If a company is earning a rate of return ("r") on

14   its common equity, and it retains a percentage of these earnings ("b"), then

15   each year a Company's earnings per share ("EPS") is expected to increase

16   by the product ("br") of its EPS in the previous year. Therefore, "br" is a

17   good measure of growth in dividends per share. For example, if a company

18   earns 10% on its equity and retains 50% of that 10% (*i.e.,* with the other

19   50% of the 10% earnings on equity being paid out in dividends), then the

20   expected growth rate in earnings and dividends is 5% (*i.e.,* 50% of 10%).

21   To calculate a plowback for the comparable group, I used the following

22   formula:

23

Direct Testimony of Kevin W. O'Donnell   Page 58
on behalf of Carolina Utility Customers Association
Docket No. G-5, Sub 632

$$\frac{br(2019) \; + \; br(2020) \; + \; br(2021E) \; + \; br(2024E\text{-}2026E \; Avg)}{4}$$

g =

The plowback estimates for all companies in the comparable company proxy group can be obtained from *The Value Line Investment Survey* under the title "percent retained to common equity." **Exhibit KWO-2** and **Exhibit KWO-3** list the plowback ratios for each company in the comparable company proxy group. **Exhibit KWO-5, page 2** shows the related calculations and results for this method with the plowback values being added to the dividend yield averages for the time periods of 1-week, 4-weeks, and 13-weeks. **Exhibit KWO-6, page 2** then shows these related calculations and results for PSNC's parent company, Dominion.

Q. **WHAT IS THE INVESTOR RETURN REQUIREMENT FROM THE DCF ANALYSIS FROM A HISTORICAL GROWTH RATE PERSPECTIVE?**

A. In terms of the proper dividend growth rate to employ for the comparable company proxy group in the DCF analysis, it is appropriate to examine the recent history of earnings and dividend growth to assess and provide the best estimate of the dividend growth that investors expect in the future.

Within **Exhibit KWO-2**, I have presented the complete set of data for the entirety of the comparable company proxy group without any of the companies removed from the comparable company proxy group as

1   published by *Value Line*. The data and calculations shown therein at

2   **Exhibit KWO-2** is the information from which my recommendation was

3   developed.

4   An examination of the 10-year and 5-year historical growth rates for

5   the comparable company proxy group within this exhibit show a difference

6   between the average earnings and dividend growth rates. For the 10-year

7   history, BPS (5.3%) grew faster than DPS (5.1%) and EPS (4.4%) in the

8   comparable company proxy group. For the 5-year history, DPS (5.9%) grew

9   faster than BPS (5.3%) and EPS (5.1%).

10   Additionally, the historical growth rates for Dominion ranged from

11   a EPS of -1.5% to a DPS of 7.5% over the 10-year historical period and a

12   EPS of -5.0% to a BPS of 9.0% over the 5-year historical period.

13   These growth rates indicate that the natural gas utility industry has

14   historically experienced solid and steady growth in earnings, dividends, and

15   book value. The DCF results based on the set of data previously mentioned

16   for the entirety of the proxy group can be found in **Exhibit KWO-5, pages**

17   **1-2** and the related results for Dominion can be found in **Exhibit KWO-6,**

18   **pages 1-2**.

19

20   **Q.   WHAT IS THE INVESTOR RETURN REQUIREMENT FROM THE**

21   **DCF ANALYSIS FROM A FORECASTED GROWTH RATE**

22   **PERSPECTIVE?**

1   A.   The forecasted growth rates from *Value Line* for the proxy group range from

2   5.1% (DPS) to 7.6% (EPS). Additionally, the forecasted *Value Line* growth

3   rates for Dominion ranged from -1.5% (DPS) to 12.0% (EPS).

4   In addition to the above forecasted *Value Line* growth rates, the

5   average plowback (retained to common equity) growth rate for the proxy

6   group is 4.2% (**Exhibit KWO-2** and **Exhibit KWO-3**), the *CFRA* 3-year

7   forecasted EPS growth rate is 5.8% (**Exhibit KWO-2**), and the *Schwab* LT

8   Growth Rate 3-5 year forecasted EPS growth rate is 5.8% (**Exhibit KWO-**

9   **2**). These values for Dominion are 4.3%, 7.0%, and 6.7%, respectively.

10   These growth rates indicate that the natural gas utility industry is

11   expecting solid and steady growth in earnings, dividends, and book value in

12   the future. The DCF results based on the set of data previously mentioned

13   for the entirety of the proxy group can be found in **Exhibit KWO-5, pages**

14   **1-2** and the related results for Dominion can be found in **Exhibit KWO-6,**

15   **pages 1-2**.

16

17   Q.   **HOW DOES THE COVID-19 PANDEMIC IMPACT YOUR COST**

18   **OF EQUITY FOR PSNC IN THIS CASE?**

19   A.   I previously outlined the impacts of the COVID-19 pandemic across the

20   overall market as a whole, as well as the utility industry, within **Section II**:

21   "Current State of the Financial Markets."

22   With regard to PSNC, the information used in my analysis herein

23   encompasses the data from the initial onset of the COVID-19 pandemic, as

Direct Testimony of Kevin W. O'Donnell   Page 61
on behalf of Carolina Utility Customers Association
Docket No. G-5, Sub 632

1   well as the market's recovery that began in Q3 2020 and that continued into

2   2021. As a result, any change in the growth rates specific to the natural gas

3   utility comparable group are already reflected in the growth rates utilized

4   within my testimony, thereby recognizing that even though the recovery has

5   begun, the U.S. economy has significant headwinds ahead.

6

7 Q.   **PLEASE PROVIDE THE SPECIFIC RESULTS OF YOUR DCF**

8   **ANALYSIS.**

9 A.   The average dividend yield for the comparable company proxy group for

10   the 13-week period was 3.3%, the 4-week time period was 3.4%, and the 1-

11   week period was 3.4%. Additionally, the average dividend yield for

12   Dominion for the 13-week period was 4.0%, the 4-week time period was

13   4.1%, and the 1-week time period was 4.2%.

14   With the second portion of the DCF analysis relating to growth rates,

15   for the comparable group, I note that the historical growth rates range from

16   4.4% to 5.9% and the forecasted growth rates range from 5.1% to 7.6%. For

17   Dominion, the historical range is from -5.0% to 9.0% and the forecasted

18   range is from -1.5% to 12.0%.

19   I have included both historical and forecasted growth rate figures

20   within my analysis as previously noted as shown within both **Exhibit**

21   **KWO-5** and **Exhibit KWO-6** to present the full set of growth rate

22   information applicable within this cost of capital analysis for both my

23   comparable proxy group, as well as PSNC's parent company, Dominion.

---

1   **Table 7** below showcases the Dividend Yield Range values from the 13-

2   week, 4-week, and 1-week dividend yield periods, plus the Historical

3   Growth Rates from *Value Line*, the Forecasted Growth Rates from *Value*

4   *Line*, *CFRA*, and *Schwab*, and the Plowback Growth Rates from *Value Line*

5   for my comparable company proxy group, as well as for PSNC's parent

6   company, Dominion.

Direct Testimony of Kevin W. O'Donnell   Page 63
on behalf of Carolina Utility Customers Association
Docket No. G-5, Sub 632

1 **Table 7**: DCF Results

Natural Gas DCF Results: Proxy Group (as sourced from **Exhibit KWO-5**)			
	Minimum	Average	Maximum
Value Line Historical Growth Rate Averages + *Value Line* Div Yield Range	8.1%	8.6%	8.9%
Forecasted Growth Rate Averages + *Value Line* Div Yield Range	8.4%	9.7%	11.0%
Value Line Plowback Growth Rate Averages + *Value Line* Div Yield Range	7.5%	7.5%	7.6%
Average (Rx)	8.0%	8.6%	9.2%
DCF Results: Dominion Parent Company (as sourced from **Exhibit KWO-6**)			
	Minimum	Average	Maximum
Value Line Historical Growth Rate Averages + *Value Line* Div Yield Range	0.8%	7.9%	11.7%
Forecasted Growth Rate Averages + *Value Line* Div Yield Range	2.5%	9.8%	16.2%
Value Line Plowback Growth Rate Averages + *Value Line* Div Yield Range	8.3%	8.4%	8.5%
Average (Rx)	3.9%	8.7%	12.1%

2
3   As shown in **Exhibit KWO-1**, I have utilized an ultimate DCF result range

4   of 7.50% to 9.50%. This range was determined based upon a review of the

5   values shown in the table above. My 7.50% to 9.50% range was positioned

6   towards the high end of the range of values shown within **Table 7** above,

7   with the low-end of the range of 7.50% being set below the average of the

8   minimum values for the proxy group (8.0%), and the high-end of the range

9   of 9.50% being set above the average of the maximum values for the proxy

10   group (9.2%). As such, I have placed my overall DCF result at 9.00%,

1   which is above the midpoint of my 7.50% to 9.50% range in order to take

2   into account the higher forecasted growth rates moving forward.

3

4   **B.   Comparable Earnings Analysis ("CEA")**

5   **Q.   PLEASE   EXPLAIN   HOW   YOU   PERFORMED   THE**

6   **COMPARABLE EARNINGS ANALYSIS?**

7   A.   I have conducted two different Comparable Earnings Analyses. The first

8   examines returns on book value equity for the comparable group. The

9   second examines allowed natural gas utility returns over an extended period

10   of time to evaluate the trend in returns for companies of similar risk.

11   However, as I stated previously, I believe the CEA to be inferior to the DCF

12   Model and that it should be given less weight in the determination of the

13   ROE recommended in this case.

14

15   **Q.   PLEASE DESCRIBE YOUR FIRST COMPARABLE EARNINGS**

16   **ANALYSIS.**

17   A.   As noted above, an appropriate CEA should be applied to comparable

18   companies of similar risk. **Exhibit KWO-4** presents a list of historic and

19   forecasted earned returns *on book value equity* of the proxy group over the

20   period from 2019 through 2026E. I picked this range to provide the

21   Commission with at least two periods of historical returns (*i.e.,* 2019 and

22   2020) and a forecasted return period of at least 5 years (*i.e.,* 2021E through

23   2026E). As can be seen in this exhibit, the average earned returns on equity

1   for the comparable company proxy group range from 9.2% (2019 and 2020)

2   to 9.7% (2021E and 2024E–2026E). Additionally, for PSNC's parent

3   company Dominion, this range was from 6.2% (2019) to 12.5% (2021E).

4

5   **Q.   PLEASE DESCRIBE YOUR SECOND COMPARABLE EARNINGS**

6   **ANALYSIS.**

7   A.   It is important to understand what state regulatory commissions/boards

8   across the country are allowing for authorized ROEs. Allowed ROEs are

9   widely known and discussed in the financial community and investors take

10   these regulatory decisions into account when they bid prices in the open

11   market for which they are willing to purchase the stock of a regulated utility.

12   As this Commission is likely aware, regulated ROE's have trended

13   down over the past 15 years. Below, **Chart 5** shows the ROEs authorized

14   for gas utilities by state regulators across the United States from 2006

15   through 2020, which ranges from 9.46% (2020) to 10.40% (2006).

1

Chart 5: Allowed ROEs 2006 – 2020[41]

Average Allowed Annual ROE's Granted by State Regulators for Nat Gas Utilities
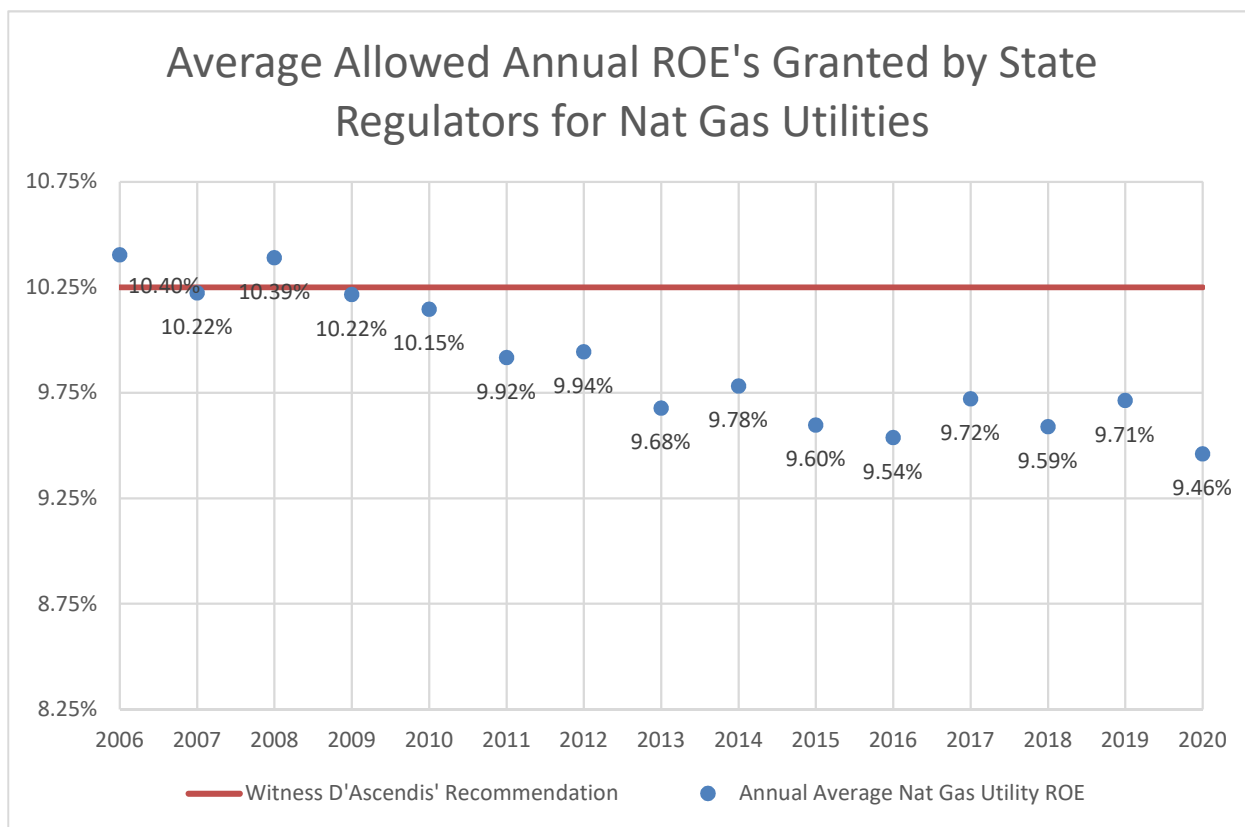
2

3   As for the most recent year, 2020, the overall allowed ROE for gas utilities

4   was 9.46%, which is the lowest figure over the previous 15-year period,

5   significantly down from the 9.71% allowed by state regulators for gas

6   utilities in 2019, and a notable 79-basis points below Ms. Nelson'

7   recommendation of 10.25%.

8

9 **Q.**   **WHAT CONCLUSIONS DO YOU DRAW FROM YOUR TWO**

10   **COMPARABLE EARNINGS ANALYSES?**

---

[41] *S&P Global Market Intelligence* Rate Case Statistics; Date Range: 15 Years; Service Type: Natural Gas; Chart Items: Common Equity to Total Capital, Return on Equity; **Date Accessed**: June 24, 2021.

Direct Testimony of Kevin W. O'Donnell   Page 67
on behalf of Carolina Utility Customers Association
Docket No. G-5, Sub 632

1   A.   Based on the above-stated findings, I believe the proper rate of return using

2   a CEA is in the range of 9.00% to 10.00%. The 9.00% low end of this range

3   is aligned with the low end of the range of the comparable company proxy

4   group from 2019–2026E shown in **Exhibit KWO-4** for 2019 and 2020 of

5   9.2%. The 10.00% high end of the range is above the high end of the range

6   of the comparable company proxy group from 2019–2026E shown in

7   **Exhibit KWO-4** for 2021E and 2024E-2026E of 9.7%. Note that the ROE

8   granted by state regulators in 2020 of 9.46% (see **Chart 5**) and the average

9   ROE granted by state regulators from 2006–2020 of 9.89% fit within this

10   9.00% to 10.00% CEA range as well.

11   I have completed the Comparable Earnings Analyses as referenced

12   above to provide the relevant data for the comparable group's book value

13   equity. However, as previously noted, it is my opinion that the DCF Model

14   produces the most reliable results in determining an appropriate ROE.

15   Furthermore, given the current volatile economic climate brought on by the

16   COVID-19 pandemic, the CEA does not appropriately capture the

17   economic impacts of the pandemic within the output of the model. As such,

18   I believe that the CEA should be given much less weight in the

19   determination of the ROE recommended in this case. Additionally, I view

20   the CAPM as a model that is more appropriate to utilize as a check on the

21   results of the DCF Model.

22

1 **Q.** **PLEASE EXPLAIN WHY YOU BELIEVE THE COMPARABLE**

2 **EARNINGS BASED ON ALLOWED ROE'S INCLUDED IN**

3 **EXHIBIT KWO-4 ARE HIGHER THAN THE RESULTS OF YOUR**

4 **DCF ANALYSIS.**

5 A. As noted above, there has been a clear declining trend in the cost of capital

6 and return on equity figures allowed by utility regulators, and this

7 downward trend is continuing. However, market returns are much more

8 dynamic and change every day. Regulators may not move at the pace of the

9 general market in terms of the decline in the market cost of capital, but

10 regulators are, without a doubt, moving in that direction as exhibited by the

11 decline in the annual allowed return national averages included in the

12 Q&A's above and as exhibited in **Chart 5**.

13

14 **C.** **Capital Asset Pricing Model ("CAPM")**

15 **Q.** **HAVE YOU PREVIOUSLY PRESENTED THE CAPM IN COST OF**

16 **EQUITY TESTIMONIES?**

17 A. Yes, but I have not given it as much weight in comparison to the DCF

18 Model. I have long maintained the application of the CAPM can lead one

19 to erroneous results when it is applied in an inaccurate manner, such as

20 when forecasted risk premiums or forecasted interest rates are employed.

21 However, I am aware that some commissions and boards around the country

22 seek a review of models other than the DCF. As a result, I have included

1   the CAPM in my analyses to supplement my DCF analysis, as well as the

2   CEA to a lesser degree.

3   **Q.   PLEASE EXPLAIN THE CAPITAL ASSET PRICING MODEL.**

4   A.   The CAPM is a risk premium model that determines a firm's ROE relative

5   to the overall market ROE. The formula for the CAPM is as follows:

6               $$ROE = Rf + Beta\ [E(RM) - Rf]$$

7   Where:

8   Rf is the risk-free rate;

9   Beta is the risk of the studied company relative to the overall market;

10   and

11   E(RM) is the expected return on the market.

12   To be specific, the CAPM is a measure of firm-specific risk, known as

13   unsystematic risk and measured by Beta, as well as overall market risk,

14   otherwise known as systematic risk and measured by the expected return on

15   the market.

16   The CAPM calculates ROE based on a company's risk and can be

17   restated as follows:

18              $$ROE = Rf + (Beta * Risk\ Premium)$$

19   Where:

Direct Testimony of Kevin W. O'Donnell   Page 70
on behalf of Carolina Utility Customers Association
Docket No. G-5, Sub 632

1   Risk Premium represents the adjusted company-specific risk of the

2   company.

3

4 **Q.   HOW IS THE RISK-FREE RATE MEASURED?**

5 A.   The risk-free rate is designated as the yield on United States government

6   bonds as the risk of default is seen as highly unlikely. Utility witnesses and

7   consumer witnesses all use United States government bond yields as the

8   risk-free rate in the CAPM. However, what is often debated in the risk-free

9   portion of the CAPM is the term of those bonds. In my analysis for this case,

10   I have developed risk premiums relative to the 30-year US Treasury bonds

11   as this time period is the longest available in the marketplace, thereby

12   affording consumers the longest protection at the risk-free rate. Chart 1,

13   above, provides the yield on 30-year U.S. Treasury bonds over the period

14   outlined in the chart.

15

16 **Q.   ARE INTEREST RATES, AT THEIR CURRENT LEVEL,**

17   **EXPECTED TO CHANGE MATERIALLY IN THE FORESEEABLE**

18   **FUTURE?**

19 A.   Economic forecasters, as well as the Federal Open Market Committee

20   (FOMC), all believed in previous years that the current interest rate

21   environment was expected to remain relatively stable for many years to

22   come. However, the FOMC implemented rate cuts throughout the early

23   stages of 2019 and then, in its December 2019 meeting, announced plans to

1   keep interest rates at current levels throughout 2020.[42] This announcement

2   occurred before the COVID-19 pandemic that played havoc on the markets

3   throughout Q1 and Q2 2020 before the market began to rebound during Q3

4   and Q4 2020. In response to the impact the pandemic had on the market, on

5   March 3, 2020 the FOMC decreased the Federal Funds Rates 50-basis

6   points to a targeted range of between 1% and 1.25% in response to recent

7   market conditions.[43] Additionally, on March 16, 2020 the FOMC dropped

8   interest rates to near 0%.[44] As such, the interest rate market was

9   unexpectedly turbulent during 2020 due largely to the COVID-19

10   pandemic.

11   Interest rates fluctuated throughout 2020 based on the overall

12   response to the pandemic, but recently increased above 2.00% during the

13   first half of 2021 (*i.e.,* 2.05% as of July 2, 2021). Despite these changes, the

14   average yield value over the period beginning with the Company's most

15   recently concluded case through the present (*i.e.,* average from April 1,

16   2019 through July 2, 2021) of 1.99% has still been much lower than that at

17   the conclusion of the Company's most recently concluded rate case prior to

---

[42] Christopher Rugaber, *Federal Reserve leaves interest rates unchanged and foresees no moves in 2020*, PBS News Hour (Dec. 11, 2019), *available at* https://www.pbs.org/newshour/economy/federal-reserve-leaves-interest-rates-unchanged-and-foresees-no-moves-in-2020.

[43] Jeff Cox, *Fed cuts rates by half a percentage point to combat coronavirus slowdown*, CNBC News (Mar. 3, 2020), *available at* https://www.cnbc.com/2020/03/03/fed-cuts-rates-by-half-a-percentage-point-to-combat-COVID-19-slowdown.html.

[44] Federal Reserve System, *Implementation Note*, Press Release (Mar. 15, 2020), *available at* https://www.federalreserve.gov/newsevents/pressreleases/monetary20200315a1.htm.

Direct Testimony of Kevin W. O'Donnell   Page 72
on behalf of Carolina Utility Customers Association
Docket No. G-5, Sub 632

1   2020,[45] when the 30-year U.S. Treasury Bond Yield on that date was

2   2.89%.[46] Even with the rise in rates above 2.00%, rates are not expected to

3   rise back to, and then sustain, levels near 2.89% again at any time in the

4   near term. As such, the market remains in a low overall interest rate

5   environment.

6

7 **Q.   HOW IS BETA MEASURED IN THE CAPM?**

8 A.   Beta is a statistical calculation of a company's stock price movement

9   relative to the overall stock movement. A company whose stock price is less

10   volatile than the overall market will have a Beta less than 1.0. A company

11   whose stock price is more volatile than the overall market will have a Beta

12   more than 1.0. In consideration of the fact that utilities are generally viewed

13   as more conservative equity investments, Betas for utilities are almost

14   always less than 1.0 under normal economic circumstances.

15

16 **Q.   WHAT   IS   THE   CURRENT   MARKET   RISK   PREMIUM**

17   **APPROPRIATE FOR USE IN THE CAPM?**

18 A.   The development of the current market risk premium is, undoubtedly, the

19   most controversial aspect of the CAPM calculations. To gauge the historical

20   risk premium, I turned to the Ibbotson database published by *Morningstar,*

---

[45] *Order Approving Stipulation*, Docket No. G-9, Sub 743 (Oct. 31, 2019).
[46] U.S. Dep't of the Treasury, *Daily Treasury Yield Curves*, *available at*
https://www.treasury.gov/resource-center/data-chart-center/interest-rates/Pages/TextView.aspx?data=yield

1   *Duff & Phelps,* and the *CFA Institute Research Foundation*. In **Table 8**

2   below, I have presented both the long-term geometric mean and arithmetic

3   mean returns for equities and fixed income securities and the resulting risk

4   premiums.

5   **Table 8:** Equity Risk Premium Calculations[47]

Asset Class	Geometric Mean	Arithmetic Mean
Large Company Stocks	10.7%	12.1%
Long-Term Govt. Bonds	8.0%	8.7%
Resulting Risk Premium	2.7%	3.4%

6   *Source*: Ibbotson ® SBBI ®, 2020 Classic Yearbook: Stocks, Bonds, Bills
7   and Inflation, 1972 – 2019 (Chicago: Morningstar, 2020).
8
9   Note that the data from **Table 8** above shows the statistics of annual total

10   returns for large company stocks and long-term government bonds from

11   1972 to 2019. With this data being more recent than similar data provided

12   by other sources and analysts over the period from 1926 to 2019, this data

13   adds more credence to what a reasonable investor can expect for a return

14   based upon more historically recent data.

15

16   **Q.   WHAT MARKET RETURNS ARE REPUTABLE PROFESSIONAL**

17   **INVESTORS EXPECTING FOR THE FORESEEABLE FUTURE?**

18   A.   On January 20, 2021, Morningstar.com published an article entitled

19   "Experts Forecast Stock and Bond Returns 2021 Edition."[48] This article was

---

[47] Roger Ibbotson & James Harrington, *Stocks, Bonds, Bills, and Inflation: 2021 Summary Edition*, Duff & Phelps, *available at* https://www.cfainstitute.org/-/media/documents/book/rf-publication/2021/sbbi-summary-edition-2021.ashx.
[48] Christine Benz, *Experts Forecast Stock and Bond Returns: 2021 Edition*, Morningstar (Jan. 20, 2021), *available at*

---

1 provided as part of Morningstar's annual stock and bond return forecast

2 series. Note that by referring to future returns, the market experts referenced

3 below are discussing the overall total market returns, and not just the equity

4 risk premium. Below are some of the market return forecasts from the

5 previously referenced article:

6 **Blackrock**

7 5% 10-year expected nominal return from US equities.[49]

8 **Grantham Mayor Van Otterloo ("GMO")**

9 Negative 5.8% real (inflation-adjusted) returns for US large caps over the

10 next seven years.[50]

11 **JP Morgan**

12 4.1% nominal returns for US equities over a 10–15-year horizon.[51]

13 **Morningstar Investment Management**

14 Negative 0.1% 10-year nominal returns for US stocks.[52]

15 **Research Affiliates**

16 2% nominal (negative 0.2% real) returns for US large caps during

17 the next 10 years.[53]

18 **Vanguard**

---

https://www.morningstar.com/articles/1018261/experts-forecast-stock-and-bond-returns-2021-edition.
[49] *Id.*
[50] *Id.*
[51] *Id*.
[52] *Id*.
[53] *Id.*

---

1   Nominal US equity market returns of 3.7% to 5.7% range over the next

2   decade.[54]

3

4   The above-stated equity returns display a very large range. On the low side

5   is *GMO*, which forecasts that US large caps will, after inflation, lose 5.8%

6   of their value annually over the next seven years. On the more positive side

7   is *Vanguard* that expects nominal equity market returns ranging between

8   3.7% and 5.7% over the next decade. Note that the above forecasts were

9   provided in January 2021, approximately 10 months after the beginning of

10   the pandemic in March 2020.

11   As another point of reference, Charles Schwab published an article

12   on May 3, 2021 titled "Why Market Returns May be Lower and Global

13   Diversification More Important in the Future."[55] This article noted that

14   "[m]arket returns on stocks and bonds over the next decade are expected to

15   fall short of historical averages"[56] and that Schwab's "estimates show that,

16   over the next 10 years, stocks and bonds will likely fall short of their

17   historical returns from 1970 to December 2020. The estimated annual

18   expected return for U.S. large-capitalization stocks from January 2021 to

19   December 2030 is 6.6%, for example, compared with an annualized return

---

[54] *Id.*

[55] Veeru Perianan, *Why Market Returns May Be Lower and Global Diversification More Important in the Future*, Charles Schwab (May 3, 2021), *available at* https://www.schwab.com/resource-center/insights/content/why-market-returns-may-be-lower-in-the-future.

[56] *Id.*

of 10.8% during the historical period."[57] This article also includes a chart that shows the overall market return, and overall market premium, for US large capitalization stocks are expected to be 6.6% and 4.5%, respectively, and that the same figures for US small capitalization stocks are expected to be 7.1% and 5.0%, respectively.[58]

I also note that in 2018, and prior to the COVID-19 pandemic, Dominion University finance professors published equity risk premium estimates that stated the expected average risk premium exhibited by a survey of U.S. Chief Financial Officers around the country was expected to be 4.42%.[59] The study stated the following:

> During the past 18 years, we have collected almost 25,000 responses to the survey. Panel A of Table 1 presents the date that the survey window opened, the number of responses for each survey, the 10-year Treasury bond rate, as well as the average and median expected excess returns. There is relatively little time variation in the risk the historical risk premiums contained in Table 1. The current premium, 4.42%, is above the historical average of 3.64%. The December 2017 survey shows that the expected annual S&P 500 return is 6.79% (=4.42%+2.37%) which is slightly below the overall average of 7.11%.[60]

Q. WHAT IS YOUR CONCLUSION AS TO THE ESTIMATED EQUITY RISK PREMIUM FOR USE IN THE CAPM?

---

[57] *Id.* (emphasis added).
[58] *Id.*
[59] John R. Graham and Campbell R Harvey, *The Equity Risk Premium in 2018*, Duke University (Mar. 28, 2018), at 3–4.
[60] *Id*. (emphasis added).

1   A.   Using historical data, as well as ex ante (forecast) data, the evidence would

2   suggest the equity risk premium is within the range of 4.25% to 6.25%.

3

4   **Q.**   **HOW DID YOU DETERMINE THE BETA YOU USED IN THE**

5   **CAPM?**

6   A.   I used the *Value Line* derived Beta sourced from the most recent *Value Line*

7   editions for each company in the comparable company proxy group.

8

9   **Q.**   **WHAT WERE YOUR CAPM RESULTS?**

10   A.   The actual calculations for the CAPM for my comparable company proxy

11   group can be seen in **Exhibit KWO-7**.

12   As shown above in Chart 1, I provided the change in the 30-year

13   U.S. Treasury bonds over the past year. During this time period, the

14   minimum yield was 1.40%, the maximum yield was 2.45%, and the average

15   yield was 1.96. **Chart 1** above provides further details on these bond yields.

16   The average Beta for the comparable company proxy group is 0.90

17   which, when multiplied by the risk premium range of 4.25% to 6.25%,

18   produces a Beta-adjusted risk premium of 3.83% to 5.63%. The 30-year

19   U.S. Treasury yield ("Rf") range of 1.40% to 2.45% is next added to the

20   Beta-adjusted risk premium range of 3.83% to 5.63% to arrive at the

21   comparable company proxy group CAPM result range of 5.23% (3.83% +

22   1.40% = 5.23%) to 8.1% (5.63% + 2.45% = 8.08%, rounded to 8.1%).

Direct Testimony of Kevin W. O'Donnell   Page 78
on behalf of Carolina Utility Customers Association
Docket No. G-5, Sub 632

1   Additionally, the Beta for PSNC's parent company Dominion is

2   0.85 which, when multiplied by the risk premium range of 4.25% to 6.25%,

3   produces a Beta-adjusted risk premium of 3.61% to 5.31%. The 30-year US

4   Treasury yield (Rf) range of 1.40% to 2.45% is next added to the Beta-

5   adjusted risk premium range of 3.61% to 5.31% to arrive at Dominion's

6   CAPM result range of 5.0% (3.61% + 1.40% = 5.01%, rounded to 5.0%) to

7   7.8% (5.31% + 2.45% = 7.76%, rounded to 7.8%).

8   Based on this range of results for the CAPM, as found in **Exhibit**

9   **KWO-7**, I find the proper ROE derived from the CAPM is in the range of

10   6.00% to 8.00%. The low-end (6.00%) of this range is above the average of

11   the comparable company proxy group CAPM results using the 4.25%

12   equity risk premium (5.2%) and is also above the average of Dominion's

13   results using the 4.25% equity risk premium (5.5%) as well. The high end

14   (8.00%) of the range is positioned at the high end of the average of the

15   comparable company proxy group CAPM results using the 6.25% equity

16   risk premium (8.1%) and is above the high end of the Dominion results

17   (7.8%) as well.

18

19   **D.   Return on Equity ("ROE") Summary**

20   **Q.   MR. O'DONNELL, PLEASE SUMMARIZE THE RESULTS OF**

21   **YOUR ROE ANALYSES IN THIS CASE.**

22   A.   **Table 9** below lists the results of my DCF, CEA, and CAPM analyses as

23   outlined within **Exhibit KWO-1**.

1   **Table 9**:   ROE Method Results

	ROE Results	
Method	Low	High
DCF	7.50%	9.50%
CEA	9.00%	10.00%
CAPM	6.00%	8.00%

2

3 **Q.**   **WHAT IS YOUR ROE RECOMMENDATION IN THIS**

4   **PROCEEDING?**

5 A.   My recommendation in this case is shown in **Exhibit KWO-1**. This exhibit

6   shows my recommendation that the Commission grant PSNC a return on

7   equity of 9.00%. This 9.00% ROE recommendation is above the 8.50%

8   mid-point of my DCF result range, equal to the low-end of the CEA, and

9   above the high-end of the CAPM results.

10

11 **Q.**   **WHAT IS YOUR OVERALL RECOMMENDED RATE OF RETURN**

12   **IN THIS PROCEEDING?**

13 A.   The overall rate of return I am recommending is 6.52%, based upon a

14   50.00% common equity capital structure / 49.43% long-term debt / 0.57%

15   short-term debt capital structure, and a 9.00% ROE / 4.09% long-term cost

16   of debt / 0.47% short-term cost of debt as summarized again in **Table 10**,

17   below.

18

Direct Testimony of Kevin W. O'Donnell   Page 80
on behalf of Carolina Utility Customers Association
Docket No. G-5, Sub 632

Table 10:   CUCA Recommended Overall Rate of Return

CUCA's Overall Recommendation			
Component	Ratio (%)	Cost Rate (%)	Weighted Cost Rate (%)
Long-Term Debt	48.53%	4.43%	2.15%
Short-Term Debt	1.47%	0.24%	0.00%
Common Equity	50.00%	9.00%	4.50%
Total Capitalization	**100.00%**		**6.65%**

VIII. REVIEW OF COST OF EQUITY ANALYSIS OF WITNESS NELSON

Q.   HOW DID MS. NELSON DEVELOP HER LIST OF COMPARABLE COMPANIES?

A.   Ms. Nelson developed her comparable company proxy "Gas Group" by first determining which gas utilities were followed by *The Value Line Investment Survey*.[61] However, as previously referenced earlier within my testimony, of the ten Natural Gas Utilities followed by *Value Line*, Ms. Nelson opted to remove UGI Corporation ("UGI"), NiSource, and Chesapeake Utilities ("Chesapeake") from her comparable company proxy group at the conclusion of her screening process, leaving her comparable company proxy group comprised of seven companies.

In such industries where there are a higher number of such comparable companies (such as the electric utility industry), I have

---

[61] Witness Nelson Direct Testimony, page 20.

1   historically taken a deeper look into which companies I believe are more

2   appropriate than others to be included within my proxy group. However, the

3   number of companies within the natural gas industry is dwindling due to a

4   variety of factors that I previously explained within **Section IV**:

5   "Development of Proxy Group." As such, given that none of the ten

6   companies within the Natural Gas industry grouping provided by *Value*

7   *Line* were undergoing any sort of bankruptcy, legal issues, restructuring, or

8   significant merger activities at the time when this direct testimony was filed,

9   I utilized the full ten natural gas utilities provided by *Value Line*. As for

10   UGI, I noted above my reasoning for including that company in my

11   comparable group.

12   I have been submitting ROE testimony to this Commission for over

13   36 years. Experience has shown me that the critical factor in determining

14   the market required ROE is not the development of the proxy group but is,

15   instead, the application of the various models available to the analyst. The

16   proxy groups of Ms. Nelson and I are slightly different, but our use of the

17   various models is vastly different.

18

19   **A.   Review of Ms. Nelson's DCF Analysis**

20   **Q.   WHAT ARE THE PRIMARY DIFFERENCES BETWEEN YOUR**

21   **APPLICATION OF THE DCF MODEL AND MS. NELSON'S**

22   **APPLICATION OF THE DCF?**

1   A.   My DCF analysis in this proceeding produced a range from 7.50% to 9.50%

2   where I used a wide range of forecasted and historical EPS, DPS, and BPS

3   growth rates. Ms. Nelson's application of the DCF Models (both Annual

4   DCF and Quarterly DCF) ranged from 9.47% to 11.14%. and Ms. Nelson

5   only utilized forecasted EPS growth rates in her DCF analysis.[62]

6

7   **Q.**   **HOW DID MS. NELSON PERFORM THE DCF CALCULATIONS**

8   **FOR HER COMPARABLE UTILITY GROUP?**

9   A.   As I mentioned previously, a DCF calculation is largely made up of two

10   inputs, an average dividend yield and an average growth rate. To begin her

11   DCF calculation, Ms. Nelson determined the dividend yield across her

12   comparable group within Nelson Direct Exhibit 2.. She took the dividend at

13   January 29, 2021 and then divided this dividend by the average closing price

14   of the last 30, 60, and 90 trading days ending February 26, 2021 for each

15   company.[63] Ms. Nelson then performed an adjustment to these historical

16   dividend yields by factoring in a growth rate component equal to one-half

17   the conclusion of the growth rate (*i.e.,* Company's Historical Dividend

18   Yield x (1 + (½ x Company's Average Projected EPS Growth Rate)).

19   In contrast, I utilized forecasted annual dividend yield for each

20   company within my proxy group across three separate time periods (*i.e.,* 13-

21   weeks, 4-weeks, and 1-week). While Ms. Nelson' dividend yield approach

---

[62] Witness Nelson, page. 25.
[63] Witness Nelson, Nelson Direct Exhibit 2.

Direct Testimony of Kevin W. O'Donnell   Page 83
on behalf of Carolina Utility Customers Association
Docket No. G-5, Sub 632

1   afforded her the use of higher dividend yield averages to use within her DCF

2   analysis, the primary reason that her DCF result approximates the high end

3   of my DCF result range was due to her decision to only rely upon forecasted

4   EPS growth rates.

5

6 **Q.**   **DO YOU AGREE WITH MS. NELSON' EXCLUSIVE USE OF**

7   **FORECASTED GROWTH RATES IN HER DCF MODEL AND**

8   **OMISSION OF HISTORICAL GROWTH RATES?**

9 A.   No. I previously noted in this testimony that I feel that analysts should

10   present both the historical and forecasted growth rates within their DCF

11   analysis for transparency purposes. By omitting the use of any historical

12   growth rates within her testimony, Ms. Nelson placed her full reliance on

13   forecasted growth rates. By not utilizing any of the historical growth rate

14   data in conjunction with her use of forecasted growth rates, Ms. Nelson has

15   ignored an entire group of data that is readily available.

16   As I noted previously in this testimony within the discussion of my

17   own DCF results, I believe that it is important for an analyst to consider

18   historical growth rates within their DCF analysis alongside the forecasted

19   growth rates. Historical growth rates capture the actual growth of the

20   various rates over time based upon a Company's reported results and

21   performance. In contrast, forecasted growth rates are derived entirely from

22   analyst projections, which can vary from analyst to analyst, and which also

23   tend to be overstated.

1

2   **Q.   ARE THERE OTHERS WITHIN THE FINANCIAL COMMUNITY**

3   **THAT CALL INTO QUESTION PLACING FULL RELIANCE**

4   **UPON FORECASTED GROWTH RATES?**

5   A.   Yes. There are various academic articles and journals that specifically call

6   into question the accuracy of earnings predictions and forecasts. For

7   example, in November 2003, Louis K. C. Chan, Jason Karceski and Josef

8   Lakonishok published an article entitled "Analysts' Conflict of Interest and

9   Biases in Earnings Forecasts" in the *Journal of Finance*. The conclusion of

10   the paper stated:

11   [I]t is commonly suggested that one group of informed
12   participants, security analysts, may have some ability to
13   predict growth. The dispersion in analysts' forecasts
14   indicates their willingness to distinguish boldly between
15   high- and low-growth prospects. IBES long-term growth
16   estimates are associated with realized growth in the
17   immediate short-term future. Over long horizons, however,
18   there is <u>little forecastability in earnings, and analysts'</u>
19   <u>estimates tend to be overly optimistic</u>.[64]
20
21   Additionally, an article written by Professors Rocco Ciciretti, Gerald P.

22   Dwyer, and Iftekhar Hasan, "Investment Analysts' Forecasts of Earnings,"

23   noted that "there is strong support for average and median earnings forecasts

24   being higher than actual earnings a year before the earnings

25   announcement"[65]; and an article published by McKinsey & Company,

---

[64] K. Chan, L., Karceski, J., & Lakonishok, J., *The Level and Persistence of Growth Rates*, Journal of Finance (2003), at 683 (emphasis added).
[65] Ciciretti, R., P. Dwyer, G., & Iftekhar, H., *Investment Analysts' Forecasts of Earnings*, Federal Reserve Bank of St. Louis Review (2009), at 545.

1   Strategy & Corporate Finance entitled "Equity analysts: Still too bullish"

2   noted that "[a]nalysts, we found, were typically overoptimistic, slow to

3   revise their earnings forecasts to reflect new economic conditions, and

4   prone to making increasingly inaccurate forecasts when economic growth

5   declined."[66]

6   I recognize that there are other academic articles and journals that

7   support the opposite viewpoint. However, given the fact that this remains a

8   debated topic within the financial community, it is appropriate to include

9   EPS, DPS, and BPS from both an historical and forecasted perspective, as

10   well as plowback growth rates, and the associated DCF results for each,

11   within my analysis. In contrast, placing undue reliance upon forecasted EPS

12   growth rates produces unrealistically high returns on equity numbers that

13   cannot be sustained indefinitely.

14

15   **Q.   WOULD MS. NELSON'S DCF ANALYSIS HAVE RETURNED A**

16   **LOWER RESULT HAD SHE UTILIZED BOTH HISTORICAL AND**

17   **FORECASTED GROWTH RATES FROM A VARIETY OF**

18   **METRICS AS OPPOSED TO SIMPLY USING HISTORICAL EPS**

19   **GROWTH RATES?**

---

[66] Goedhart, M., Raj, R., & Saxena, A., *Equity analysts: Still too bullish*,
McKinsey & Company Strategy & Corporate Finance (2010).

1   A.   Yes. As shown in Ms. Nelson's, Direct Exhibit 2, Ms. Nelson' growth rates

2   ranged from 1.50% to 10.50% for *Value Line*, 5.00% to 7.50% for *Zack's*,

3   3.10% to 7.10% for Zacks..

4   However, as shown within **Exhibit KWO-2**, the historical growth

5   rates for my proxy group ranged from -3.0% to 10.0% and for Dominion

6   Energy ranged from -5.0% to 12.0% and my forecasted growth rates for my

7   proxy group ranged from 0.5% to 11.5% and for Dominion ranged from -

8   1.5% to 12.0%. Clearly the forecasted growth rates relied upon by Ms.

9   Nelson led her ultimate DCF result to approximate the absolute high end of

10   my overall DCF result range.

11

12   **B.**   **Review of Ms. Nelson' CAPM Analysis**

13   **Q.**   **WHAT ARE THE PRIMARY DIFFERENCES BETWEEN YOUR**

14   **APPLICATION OF THE CAPM AND MS. NELSON'S**

15   **APPLICATION OF THE CAPM?**

16   A.   My CAPM analysis in this proceeding produced a range from 6.00% to

17   8.00%. Ms. Nelson's CAPM analysis produced a range from 12.48% to

18   13.01%.[67] The primary differences between my application of the CAPM

19   and Ms. Nelson's application of the CAPM are the following:

---

[67] Witness Nelson Direct, p. 39

Direct Testimony of Kevin W. O'Donnell   Page 87
on behalf of Carolina Utility Customers Association
Docket No. G-5, Sub 632

1   • Ms. Nelson utilized certain data points for her forecasted market return

2   that inflated the overall Market Risk Premium used within her CAPM

3   analysis;[68] and

4   • Ms. Nelson employed the use of a Traditional CAPM and an Empirical

5   CAPM, averaged the results of both, and then presented that value as

6   her ultimate CAPM result.[69]

7

8 **Q.   PLEASE EXPLAIN HOW MS. NELSON APPLIED THE CAPM.**

9 A.   In her analysis (as shown in **Schedule DWD-4**), Ms. Nelson combined a

10   Market Risk Premium, in conjunction with her estimated risk-free rate and

11   company-specific Betas, to apply within her CAPM. Ms. Nelson's decision

12   to use certain forecasted market return values ultimately resulted in higher

13   a CAPM result for her client in this proceeding.

14

15 **Q   WHAT IS THE RISK-FREE RATE THAT MS. NELSON USES IN**

16   **HER CAPM ANALYSIS?**

17 A.   In her direct testimony, Ms. Nelson cited a 1.97% current yield on the 30-

18   years Treasury bond and a projected 30-year Treasury yield of 2.72%.[70]

19

---

[68] Witness Nelson Direct Exhibit 4.
[69] *Id.*
[70] Witness Nelson, p. 35, l. 10-12.

Direct Testimony of Kevin W. O'Donnell   Page 88
on behalf of Carolina Utility Customers Association
Docket No. G-5, Sub 632

1 Q. **DO YOU AGREE WITH MS. NELSON' FORECASTED RISK-FREE**

2 **RATE?**

3 A. I do not take issue with the risk-free rate range used by Ms. Nelson in this

4 proceeding[71] As shown within **Exhibit KWO-7**, I have used the 30-year

5 U.S. Treasury Bond Yield to approximate what I deem to be appropriate to

6 use for the risk-free rate for application within the CAPM. This yield over

7 the period from August 21, 2020 to August 20, 2021 ranged from 1.34% to

8 2.54%, with an average of 1.92%.

9

10 Q. **DO YOU AGREE WITH MS. NELSON' BETAS USED WITHIN**

11 **HER CAPM ANALYSIS?**

12 A. I do not take issue with the Beta values used by Ms. Nelson in this

13 proceeding.

14

15 Q. **WHAT EXPECTED MARKET RETURN DOES MS. NELSON USE**

16 **IN THE CAPM ANALYSIS HE EMPLOYS IN THIS CASE?**

17 A. Ms. Nelson utilized the DCF model for the S&P 500 companies using data

18 from Bloomberg and Value Line.[72] Her results were 16.35% for Bloomberg

19 and 14.34% for Value Line. [73] Ms. Nelson states she used the Value Line

20 estimate of 14.34% in the CAPM.

---

[71] *Id.*
[72] Witness Nelson, p. 36, lines 16-17.
[73] Id, p. 37, lines 5-7

---

1   I urge the Commission to scrutinize Ms. Nelson's testimony in this

2   proceeding. She wants this Commission to believe the stock market is going

3   to produce long-term returns of 14.34% to 16.35% into the foreseeable

4   future. All of us invest in assets frequently throughout our lives. We invest

5   in homes, we invest in retirement accounts, we invest in normal portfolios,

6   we invest in many other opportunities. I ask the Commission to ask his/her

7   own personal financial advisor if he/she believes the market is going to

8   produce total returns as high as 15% in the coming years. In addition, please

9   read financial literature and watch shows such as Squawk Box, etc. to see

10   what financial experts are truly expecting.   I contend that the overall market

11   return forecast of Ms. Nelson if 14.34% to 16.35% is grossly incorrect.

12

13   **Q.   HOW DOES MS. NELSON'S FORECASTED MARKET RETURN**

14   **COMPARE TO FORECASTS FROM OTHER ANALYSTS?**

15   A.   As I indicated previously, well-known entities such as Morningstar and

16   Vanguard forecasted market returns from -0.1% to 5.7% during January

17   2021.[74] Additionally, Charles Schwab published an article that included a

18   chart that showed that the overall market return, and overall market

19   premium, for U.S. large capitalization stocks are expected to be 6.6% and

20   4.5%, respectively, and that the same figures for U.S. small capitalization

---

[74] Christine Benz, *Experts Forecast Stock and Bond Returns: 2021 Edition*, Morningstar (Jan. 20, 2021), *available at* https://www.morningstar.com/articles/1018261/experts-forecast-stock-and-bond-returns-2021-edition.

---

1   stocks are expected to be 7.1% and 5.0%, respectively.[75] Ms. Nelson's

2   Forecasted Market Return of 10.42% and Forecasted Market Premium of

3   8.11% (*i.e.,* 10.42% Market Risk Premium - 2.31% Risk-Free Rate), as

4   referenced above are, to say the least, unrealistic.

5   Whether the comparison is to forecasts from current day analysts or

6   to historical returns, Ms. Nelson's market return forecasts used within her

7   CAPM analysis simply have no underlying fundamental support or

8   reasoning.

9

10   **Q.**   **DID MS. NELSON ALSO USE ANOTHER CAPM COST OF**

11   **CAPITAL MODEL?**

12   A.   Yes., Ms. Nelson also used the Empirical Capital Asset Pricing Model

13   ("ECAPM"). She explains the ECAPM by stating:

14   The ECAPM addresses the tendency of the CAPM to under-
15   estimate the Cost of Equity for companies, such as regulated
16   utilities, with low Beta coefficients. As discussed below, the
17   ECAPM recognizes the results of academic research
18   indicating that the risk-return relationship is different (in
19   essence, flatter) than estimated by the CAPM, and that the
20   CAPM under-estimates the alpha, or the constant return
21   term.
22

23   The ECAPM pricing model makes use of a weighted Risk Premium, with

24   the Overall Market Risk Premium weighted by a factor of 25%, and a

25   company-specific Beta-adjusted Risk Premium based on the stocks' relative

---

[75] https://www.schwab.com/resource-center/insights/content/why-market-returns-may-be-lower-in-the-future

1   volatility being weighted by 75%. Essentially, this ECAPM method is

2   utilized when an analyst feels as though the weighted risk premium will

3   help to correct for returns produced that were too high or too low for stocks

4   with low Betas (*i.e.,* those stocks that are deemed to be less risky than the

5   overall market) or high Betas (*i.e.,* those stocks that are deemed to be more

6   risky than the overall market), respectively.

7

8   **C.   Review of Ms. Nelson's Risk Premium Method**

9   **Q.   MR. O'DONNELL, PLEASE EXPLAIN THE DIFFERENCE**

10   **BETWEEN THE RISK PREMIUM MODEL AND THE CAPM?**

11   A.   The CAPM and the Risk Premium models are both essentially risk premium

12   models. The Risk Premium model's basis is in assuming that common stock

13   and equity are riskier than debt, and that therefore investors would require

14   a higher expected return on a stock in comparison to a bond. As such, in the

15   Risk Premium model, the cost of equity is comprised of the cost of debt and

16   a corresponding risk premium.

17   The primary difference between the CAPM and the Risk Premium

18   model is that the CAPM is more company-specific due to its use of

19   company-specific Betas to measure systematic risk. However, both models

20   are fundamentally similar in that they compare market returns (either total

21   market or utility markets) to bond yields.

22

1 **Q.** **PLEASE EXPLAIN MS. NELSON'S APPLICATION OF HER RISK-**

2 **PREMIUM MODEL.**

3 A. Ms. Nelson's Risk Premium model produced a range from 9.75% to 9.86%.

4 Ms. Nelson determined the risk premium for utility applications were in the

5 range of 7.89%, which is used with projected 30-year Treasury bonds, and

6 7.04%, which is used with current 30-year Treasury bonds.

7 It is important to keep in mind what Ms. Nelson is herein

8 advocating. She says the risk premium for a regulated utility with a

9 monopoly service territory is more than DOUBLE the overall historical

10 market return as shown in **Table 8** above. Again, Ms. Nelson's comments

11 simply do not make sense.

12

13

14 **D.** **Other Adjustments Employed by Ms. Nelson**

15 **Q.** **DO YOU AGREE WITH MS. NELSON THAT THE ALLOWED ROE**

16 **FOR PSNC SHOULD BE ELEVATED TO ACCOUNT FOR HER**

17 **PERCEIVED SIZE DIFFERENCE?**

18 A. No. PSNC is owned by Dominion Resources, which is a massive utility

19 holding company. Investors cannot buy common equity in PSNC. When

20 investors buy long-term debt of PSNC, they realize that the ultimate holder

21 of that debt is Dominion as the utility holding company will not allow

22 anything negative on a financial basis to happen at a subsidiary. Hence, no

23 size adjustment consideration is warranted.

1   ## IX.   COST OF SERVICE STUDY AND RATE DESIGN

2   **Q.**   **WHICH PSNC WITNESS PRESENTED THE COMPANY'S COST**

3   **OF SERVICE STUDY AND PROPOSED RATE DESIGN IN THIS**

4   **CASE?**

5   A.   PSNC retained the services of Witness John Taylor for the development of

6   its cost of service study and its proposed rate design in this case.

7

8   **Q.**   **PLEASE EXPLAIN HOW MR. TAYLOR PERFORMED THE COSS**

9   **PRESENTED IN THIS CASE.**

10 A.   In his direct testimony, Mr. Taylor presented an allocated cost of service

11   study ("COSS") in which she used various allocation factors to apportion

12   PSNC's costs and investments amongst its customer classes. The end result

13   is, in essence, an income statement and rate base for each customer class

14   from which a rate of return per class can be determined. Based on the results

15   of the COSS, an analyst can design rates that will more accurately reflect

16   the actual cost to serve a particular customer class.

17

18 **Q.**   **WHAT IS THE KEY COMPONENT IN PERFORMING A**

19   **NATURAL GAS COST OF SERVICE STUDY?**

20 A.   The key allocation for natural gas COSS is how the analyst allocates

21   distribution mains, which are pipes through which the natural gas flows

22   from the interstate pipelines to the street level of homes and business. These

1   distribution mains are fixed costs incurred by PSNC in the delivery of

2   natural gas.

3

4 **Q.** **HOW DID MR. TAYLOR ALLOCATE DISTRIBUTION MAINS**

5   **WITHIN HER ACOSS?**

6 A.   Mr. Taylor used the peak and average cost allocation method for allocating

7   fixed gas costs in his COSS. In this methodology, distribution mains are

8   allocated at the ratio of 50% of the ratio of customer class usage at the time

9   of the annual peak demand of the utility plus 50% of the ratio of the

10   customer class usage (throughput) as compared to the total throughout for

11   the entire year. Hence, the peak and average allocation factor gives equal

12   weight to customer class usage at the time of the system peak and the

13   customer class usage throughout the entire year.

14

15 **Q.** **WHAT ARE THE ADVANTAGES AND DISADVANTAGES OF**

16   **USING THE PEAK AND AVERAGE METHODOLOGY FOR**

17   **ALLOCATING DISTRIBUTION MAINS?**

18 A.   The Peak and Average ("P&A") methodology has been used by the

19   Company and the Public Staff for quite some time. It is a methodology

20   about which the Commission is fully aware. Along with familiarity, one

21   advantage of the P&A is its simplicity. Adding 50% of the peak allocation

22   and 50% of average use is a straightforward process. Another advantage is

1   that this methodology gives weight to the peak contribution of each

2   customer class as well as the average use of each class.

3   A disadvantage of the P&A methodology is that it is not, in my

4   opinion, based on cost causation principles. Specifically, the P&A

5   methodology does not reflect the manner in which the PSNC gas system

6   was constructed. The PSNC system was built to meet peak demands, not

7   average demands. As a result, any reliance on the use of the average

8   throughput does not send the proper price signal to customers.

9

10   **Q.   ARE THERE OTHER METHODOLOGIES AVAILABLE FOR**

11   **ALLOCATING MAINS IN NATURAL GAS COST OF SERVICE**

12   **STUDIES?**

13   A.   Yes, since natural gas distribution systems are built to meet peak demand,

14   another methodology that could be employed would be to allocate

15   distribution mains on each customer class's contribution to the peak demand

16   in a given year. This methodology is, as the name implies, the Peak

17   methodology.

18

19   **Q.   WHAT ARE THE ADVANTAGES AND DISADVANTAGES OF**

20   **THE   PEAK   METHODOLOGY   FOR   ALLOCATING**

21   **DISTRIBUTION MAINS?**

---

1   A.   The advantage of the peak allocation is that it reflects the manner in which

2   the gas distribution system is constructed. In this sense, the Peak

3   methodology is superior to the P&A method.

4   Some would object to the Peak method on the grounds that it does

5   not reflect how certain customers use the gas distribution system.

6   Specifically, the Peak allocation methodology allocates little, if any,

7   distribution mains expense to the two interruptible classes that take service

8   throughout the year but have relatively little distribution mains expense

9   allocated to that class due to the classes' interruptible nature. When a design

10   day allocation is used, as it has been in this case, interruptible customers are

11   not allocated distribution mains expenses.

12   I disagree with this objection to the Peak method. From a cost-

13   causation, perspective, interruptible customers should pay for a small

14   portion of the distribution mains. PSPNC constructed the distribution mains

15   to handle peak capacity, and because the interruptible customers are subject

16   to curtailment during peak demand, the interruptible customers contributed

17   less to PSNC's build out of capacity. Moreover, given that interruptible

18   customers volunteer to be curtailed to make capacity available for other

19   customers, interruptible customers should pay a lower-than-average rate for

20   gas service.

21 **Q. HOW WOULD THE CHANGE IN ALLOCATION FACTORS**

22   **FROM PEAK AND AVERAGE TO PEAK DAY AFFECT THE**

23   **COSS?**

---

1   A.   A gas utility system's primary requirement at the time of the system peak is

2   to serve its firm customers that absolutely must have their natural gas

3   supplies met. These customers are called high priority gas customers and

4   are typically residential and commercial consumers. However, PSNC's

5   interruptible customers have agreed to have their service cut off at the time

6   of the system peak so as to make capacity available for PSNC's firm

7   customers. These interruptible customers are typically manufacturers that

8   are served at a lower rate with the expectation they will not be able to take

9   natural gas service from PSNC at the time of the system peak or on other

10   high use days.

11   Based on the above, the peak method, as opposed to the peak and

12   average method, is a more accurate cost-allocation methodology for

13   interruptible customers. The peak method avoids allocating distribution-

14   mains costs to interruptible customers, who might not take service on the

15   day of peak demand, and accurately allocates those costs to firm customers,

16   who take service on the day of the peak demand. This is appropriate because

17   PSNC invested in distribution mains primarily to satisfy the demand of firm

18   customers, not the interruptible customers. In contrast, the peak and average

19   method assigns PSNC's distribution-main costs to interruptible customers,

20   despite PSNC having made those investments primarily to serve firm

21   customers.

22

1 **Q. WHAT ARE THE CUSTOMER CLASS RATES OF RETURN**

2 **USING THE PEAK AND AVERAGE ALLOCATION FACTOR FOR**

3 **FIXED GAS COSTS VERSUS USING THE PEAK DAY**

4 **ALLOCATION FACTOR FOR FIXED GAS COSTS?**

5 A. **Table 11** below provides the customer class rates of return using these two

6 different allocation factors for apportioning fixed gas costs.

7
8 **Table 11**: Customer Class Rates of Return Based Upon
9 Fixed Gas Cost Allocation
10

Customer Class	Peak & Average	Peak Day
Residential	5.90%	5.59%
Small Gen. Svc.	6.35%	6.15%
Medium Gen Svc.	10.21%	10.25%
Large Firm Svc	2.04%	3.06%
Large Int. Svc.	0.43%	1.39%

11

12 As can be seen in the table above, there is not much of a difference in the

13 class rates per the two COSS methods.

14

15 **Q. WHAT ARE MR. TAYLOR'S PROPOSED CUSTOMER CLASS**

16 **RATE INCREASES?**

1   A.   **Table 12** below provides the requested customer class increases and the

2   resulting class rates of return.

3

4   **Table 12**: PSNC Proposed Class Rate Increases

5

Customer Class	PSNC Proposed Rate Hikes
Residential	9.15%
Small Gen. Svc.	9.15%
Medium Gen Svc.	4.57%
Large Firm Svc	18.29%
Large Int. Svc.	18.29%

6

7

8   On pages 20 and 21 of his prefiled direct testimony, Mr. Taylor provides

9   several reasons for his recommended rate design. One aspect he apparently

10   did not consider, or at least did not mention in his testimony, is rate shock.

11   Proposed rate hikes of 18.29% is rate shock to PSNC's large firm customers

12   and its large interruptible customers. If these rate hikes are accepted by this

13   Commission, manufacturers may be forced to close and, if these closures

14   occur, rates for the remaining customers will increase as the fixed costs will

15   need to be spread to all remaining customer classes.

16

Direct Testimony of Kevin W. O'Donnell   Page 100
on behalf of Carolina Utility Customers Association
Docket No. G-5, Sub 632

1 **Q. ARE YOU PRESENTING A RATE DESIGN AS PART OF YOUR**

2 **ANALYSIS IN THIS CASE?**

3 A. Yes, I am.

4

5 **Q. PLEASE EXPLAIN HOW YOU DEVELOPED YOUR**

6 **RECOMMENDED RATE DESIGN.**

7 A. The basis of my rate design is the assumption that the sum of all my rate

8 recommendations must allow PSNC to earn my recommended overall cost

9 of capital of 6.52%. I then made a second assumption that no customer class

10 could sustain a rate increase or decrease of more than 10%. My

11 recommended rate change per customer class and the resulting class rates

12 of return are found in **Table 13** below.

13

14 **Table 13**: Recommended Rate Change and

15 Resulting Class Rates of Return

Customer Class	CUCA Rec Rate Increase (%)
Residential	6.83%
Small GS - Rate 102	6.24%
Medium GS - Rate 152	3.00%
Large General Service	7.85%
Large GS Trans. - Rate 113	7.62%

16

1   In the above rate design, I attempted to balance the interests of all customer

2   classes without allowing any one particular class to sustain excessive rate

3   hikes while other classes enjoyed significant rate cuts. My testimony in this

4   case is compatible with the testimony I recently filed in the Piedmont case.

5   While I do represent manufacturers before this Commission, CUCA and I

6   also want to do what is right. PSNC's rate design is not correct in that Mr.

7   Taylor paid no attention to rate shock that, if adopted by this Commission

8   will run manufacturers, their jobs, and their tax base out of North Carolina.

9

10   **Q.**   **DID YOU USE THE SWPA ACOSS METHOD OR THE PEAK DAY**

11   **DEMAND ACOSS METHOD IN THE DEVELOPMENT OF THE**

12   **ABOVE-STATED RATE CHANGES AND ACCOMPANYING**

13   **CLASS RATES OF RETURN?**

14   A.   Yes, I used the SWPA ACOSS in the development of my recommended

15   rate design. The reason is that use of the Peak Day ACOSS would not have

16   altered my recommended rate design in any meaningful way.

17

18   **X.   SUMMARY**

19   **Q.**   **MR. O'DONNELL, PLEASE SUMMARIZE YOUR TESTIMONY.**

20   A.   PSNC's requested rate increase in this case is excessive, unnecessary, and

21   burdensome on the ratepayers of North Carolina. My specific

22   recommendations in this case are as follows:

---

1 • The proper capital structure to use in this proceeding is 50.00% common

2   equity, 48.52% long-term debt; and 1.48% short-term debt.

3 • The Company's long-term debt cost rate should be set at 4.43% and its

4   short-term debt rate should be set at 0.25%

5 • The Company's allowed ROE should be set at 9.00%.

6 • The overall rate of return that PSNC should be allowed to earn in this

7   proceeding is 6.65%.

8 • The Company's requested capital structure and ROE are, both,

9   unreasonable for ratemaking purposes.

10 • The recommended rate changes per customer class are as follows:

11   • Residential – 6.83% increase

12   • Small Gen. Svc – 6.24% decrease

13   • Med. Gen Svc. – 3.00% decrease

14   • Large Gen. Svc – Firm Sales – 7.85% increase

15   • Large Gen Svc. –Interruptible – 7.62% increase

16

17 **Q.   DOES THIS CONCLUDE YOUR TESTIMONY?**

18 A.   Yes.

Certificate of Service

I hereby certify that a copy of the foregoing Direct Testimony of Kevin O'Donnell (with exhibits) has been served this day upon the parties of record in this proceeding by electronic mail.

This the 23rd day of September, 2021.

<div align="right">

BROOKS, PIERCE, McLENDON,
HUMPHREY & LEONARD, LLP

/s/ Craig D. Schauer

</div>

INDEX OF EXHIBITS

Exhibit No.	Description
Appendix A	Curriculum vitae
KWO-1	CUCA Recommended Overall Rate of Return
KWO-2	DCF Summary of O'Donnell Proxy Group
KWO-3	Plowback Rations for O'Donnell Proxy Group
KWO-4	Returns on Book Value of O'Donnell Proxy Group
KWO-5	DCF Results of O'Donnell Proxy Group
KWO-6	DCF Results of Dominion Parent Company
KWO-7	CAPM Results of O'Donnell Proxy Group

Appendix A

Kevin W. O'Donnell, CFA

Nova Energy Consultants, Inc. (Nova)
1350-101 SE Maynard Rd.
Cary, NC
919-461-0270
919-461-0570 (fax)
kodonnell@novaenergyconsultants.com

Kevin W. O'Donnell, is the founder of Nova Energy Consultants, Inc. in Cary, NC. Mr. O'Donnell's academic credentials include a B.S. in Civil Engineering - Construction Option from North Carolina State University as well as a MBA in Finance from Florida State University. Mr. O'Donnell is also a Chartered Financial Analyst ("CFA").

Mr. O'Donnell has experience working in the electric, natural gas, and water/sewer industries since 1984. He is very active in municipal power projects and has assisted numerous southeastern U.S. municipalities cut their wholesale cost of power by as much as 67%. On Dec. 12, 1998, *The Wilson Daily Times* made the following statement about O'Donnell.

> **Although we were skeptical of O'Donnell's efforts at first, he has shown that he can deliver on promises to cut electrical rates.**

Mr. O'Donnell has completed close to 30 wholesale power projects for municipal and university-owned electric systems throughout North and South Carolina. In May of 1996 Mr. O'Donnell testified before the U.S. House of Representatives, Committee on Commerce, Subcommittee on Energy and Power regarding the restructuring of the electric utility industry.

Mr. O'Donnell has appeared as an expert witness in over 120 regulatory proceedings before the North Carolina Utilities Commission, the South Carolina Public Service Commission, the Virginia Corporation Commission, the Minnesota Public Service Commission, the New Jersey Board of Public Utilities, the Colorado Public Service Commission, the Wisconsin Public Service Commission, the Maryland Public Service Commission, the District of Columbia Public Service Commission, the Pennsylvania Public Utility Commission, the Indiana Public Utility Commission, the California Public Service Commission, and the Florida Public Service Commission. His area of expertise has included rate design, cost of service, rate of return, capital structure, asset valuation analyses, fuel adjustments, merger transactions, holding company applications, as well as numerous other accounting, financial, and utility rate-related issues.

Mr. O'Donnell is the author of the following two articles: "Aggregating Municipal Loads: The Future is Today" which was published in the Oct. 1, 1995 edition of *Public Utilities Fortnightly;* and "Worth the Wait, But Still at Risk" which was published in the May 1, 2000 edition of *Public Utilities Fortnightly.* Mr. O'Donnell is also the co-author of "Small Towns, Big Rate Cuts" which was published in the January, 1997 edition of *Energy Buyers Guide.* All of these articles discuss how rural electric systems can use the wholesale power markets to procure wholesale power supplies.

Regulatory Cases of Kevin W. O'Donnell, CFA
Nova Energy Consultants, Inc.

Year	Name of Applicant	State Jusrisdiction	Docket No.	Client/ Employer	Case Issues
1985	Public Service Company of NC	NC	G-5, Sub 200	Public Staff of NCUC	Return on equity, capital structure
1985	Piedmont Natural Gas Company	NC	G-9, Sub 251	Public Staff of NCUC	Return on equity, capital structure
1986	General Telephone of the South	NC	P-19, Sub 207	Public Staff of NCUC	Return on equity, capital structure
1987	Public Service Company of NC	NC	G-5, Sub 207	Public Staff of NCUC	Return on equity, capital structure
1988	Piedmont Natural Gas Company	NC	G-9, Sub 278	Public Staff of NCUC	Return on equity, capital structure
1989	Public Service Company of NC	NC	G-5, Sub 246	Public Staff of NCUC	Return on equity, capital structure
1990	North Carolina Power	NC	E-22, Sub 314	Public Staff of NCUC	Return on equity, capital structure
1991	Duke Energy	NC	E-7, Sub 487	Public Staff of NCUC	Return on equity, capital structure
1991	North Carolina Natural Gas	NC	G-21, Sub 306	Public Staff of NCUC	Natural gas expansion fund
1991	North Carolina Natural Gas	NC	G-21, Sub 307	Public Staff of NCUC	Natural gas expansion fund
1991	Penn & Southern Gas Company	NC	G-3, Sub 186	Public Staff of NCUC	Return on equity, capital structure
1995	North Carolina Natural Gas	NC	G-21, Sub 334	Carolina Utility Customers Assoc.	Return on equity, capital structure, rate design, cost of service
1995	Carolina Power & Light Company	NC	E-2, Sub 680	Carolina Utility Customers Assoc.	Fuel adjustment proceeding
1995	Duke Power	NC	E-7, Sub 559	Carolina Utility Customers Assoc.	Fuel adjustment proceeding
1996	Piedmont Natural Gas Company	NC	G-9, Sub 378	Carolina Utility Customers Assoc.	Return on equity, capital structure, rate design, cost of service
1996	Piedmont Natural Gas Company	NC	G-9, Sub 382	Carolina Utility Customers Assoc.	Return on equity, capital structure, rate design, cost of service
1996	Public Service Company of NC	NC	G-5, Sub 356	Carolina Utility Customers Assoc.	Return on equity, capital structure, rate design, cost of service
1996	Cardinal Extension Company	NC	G-39, Sub 0	Carolina Utility Customers Assoc.	Capital structure, cost of capital
1997	Public Service Company of NC	NC	G-5, Sub 327	Carolina Utility Customers Assoc.	Return on equity, capital structure, rate design, cost of service
1998	Public Service Company of NC	NC	G-5, Sub 386	Carolina Utility Customers Assoc.	Return on equity, capital structure, rate design, cost of service
1998	Public Service Company of NC	NC	G-5, Sub 386	Carolina Utility Customers Assoc.	Natural gas transporation rates
1999	Public Service Company of NC/SCANA Corp	NC	G-5, Sub 400	Carolina Utility Customers Assoc.	Merger case
1999	Public Service Company of NC/SCANA Corp	NC	G-43	Carolina Utility Customers Assoc.	Merger Case
1999	Carolina Power & Light Company	NC	E-2, Sub 753	Carolina Utility Customers Assoc.	Holding company application
1999	Carolina Power & Light Company	NC	G-21, Sub 387	Carolina Utility Customers Assoc.	Holding company application
1999	Carolina Power & Light Company	NC	P-708, Sub 5	Carolina Utility Customers Assoc.	Holding company application
2000	Piedmont Natural Gas Company	NC	G-9, Sub 428	Carolina Utility Customers Assoc.	Return on equity, capital structure, rate design, cost of service
2000	NUI Corporation	NC	G-3, Sub 224	Carolina Utility Customers Assoc.	Holding company application
2000	NUI Corporation/Virginia Gas Company	NC	G-3, Sub 232	Carolina Utility Customers Assoc.	Merger application
2001	Duke Power	NC	E-7, Sub 685	Carolina Utility Customers Assoc.	Emission allowances and environmental compliance costs
2001	NUI Corporation	NC	G-3, Sub 235	Carolina Utility Customers Assoc.	Tariff change request.
2001	Carolina Power & Light Company/Progress E	NC	E-2, Sub 778	Carolina Utility Customers Assoc.	Asset transfer case
2001	Duke Power	NC	E-7, Sub 694	Carolina Utility Customers Assoc.	Restructuring application
2002	Piedmont Natural Gas Company	NC	G-9, Sub 461	Carolina Utility Customers Assoc.	Return on equity, capital structure, rate design, cost of service
2002	Cardinal Pipeline Company	NC	G-39, Sub 4	Carolina Utility Customers Assoc.	Cost of capital, capital structure
2002	South Carolina Public Service Commission	SC	2002-63-G	South Carolina Energy Users Committee	Rate of return, accounting, rate design, cost of service
2003	Piedmont Natural Gas/North Carolina Natura	NC	G-9, Sub 470	Carolina Utility Customers Assoc.	Merger application
2003	Piedmont Natural Gas/North Carolina Natura	NC	G-9, Sub 430	Carolina Utility Customers Assoc.	Merger application
2003	Piedmont Natural Gas/North Carolina Natura	NC	E-2, Sub 825	Carolina Utility Customers Assoc.	Merger application
2003	Carolina Power & Light Company	NC	E-2, Sub 833	Carolina Utility Customers Assoc.	Fuel case
2004	South Carolina Electric & Gas	SC	2004-178-E	South Carolina Energy Users Committee	Return on equity, capital structure, rate design, cost of service
2005	Carolina Power & Light Company	NC	E-2, Sub 868	Carolina Utility Customers Assoc.	Fuel case
2005	Piedmont Natural Gas Company	NC	G-9, Sub 499	Carolina Utility Customers Assoc.	Return on equity, capital structure, rate design, cost of service
2005	South Carolina Electric & Gas	SC	2005-2-E	South Carolina Energy Users Committee	Fuel application
2005	Carolina Power & Light Company	SC	2006-1-E	South Carolina Energy Users Committee	Fuel application
2006	IRP in North Carolina	NC	E-100, Sub 103	Carolina Utility Customers Assoc.	Submitted rebuttal testimony in investigation of IRP in NC.
2006	Piedmont Natural Gas Company	NC	G-9, Sub 519	Carolina Utility Customers Assoc.	Creditworthiness issue
2006	Public Service Company of NC	NC	G-5, Sub 481	Carolina Utility Customers Assoc.	Return on equity, capital structure, rate design, cost of service
2006	Duke Power	NC	E-7, 751	Carolina Utility Customers Assoc.	App to share net revenues from certain wholesale pwr trans

Regulatory Cases of Kevin W. O'Donnell, CFA
Nova Energy Consultants, Inc.

Year	Name of Applicant	State Jusrisdiction	Docket No.	Client/ Employer	Case Issues
2006	South Carolina Electric & Gas	SC	2006-192-E	South Carolina Energy Users Committee	Fuel application
2007	Duke Power	NC	E-7, Sub 790	Carolina Utility Customers Assoc.	Application to construct generation
2007	South Carolina Electric & Gas	SC	2007-229-E	South Carolina Energy Users Committee	Rate of return, accounting, rate design, cost of service
2008	South Carolina Electric & Gas	SC	2008-196-E	South Carolina Energy Users Committee	Base load review act proceeding
2009	Western Carolina University	NC	E-35, Sub 37	Western Carolina University	Rate of return, accounting, rate design, cost of service
2009	Duke Power	NC	E-7, Sub 909	Carolina Utility Customers Assoc.	Cost of service, rate design, return on equity, capital structure
2009	South Carolina Electric & Gas	SC	2009-261-E	South Carolina Energy Users Committee	DSM/EE rate filing
2009	Duke Power	SC	2009-226-E	South Carolina Energy Users Committee	Return on equity, capital structure, rate design, cost of service
2009	Tampa Electric	FL	080317-EI	Florida Retail Federation	Return on equity, capital structure
2010	Duke Power	SC	2010-3-E	South Carolina Energy Users Committee	Fuel application - assisted in settlement
2010	South Carolina Electric & Gas	SC	2009-489-E	South Carolina Energy Users Committee	Return on equity, capital structure, rate design, cost of service
2010	Virginia Power	VA	PUE-2010-00006	Mead Westvaco	Rate design
2011	Duke Energy	SC	2011-20-E	South Carolina Energy Users Committee	Nuclear construction financing
2011	Northern States Power	MN	E002/GR-10-971	Xcel Large Industrials	Return on equity, capital structure
2011	Virginia Power	VA	PUE-2011-0027	Mead Westvaco	Capital structure, revenue requirement
2011	Duke Energy	NC	E-7, Sub 989	Carolina Utility Customers Assoc.	Accounting, cost of service, rate design, ROE, capital structure
2011	Duke Energy	SC	2011-271-E	South Carolina Energy Users Committee	Accounting, cost of service, rate design, ROE, capital structure
2011	Dominion Virginia Power	VA	PUE-2011-00073	Mead Westvaco	Rate design
2012	Town of Smithfield/Partners Equity Group	NC	ES-160, Sub 0	Partners Equity Group	Rate design, asset valuation
2012	Florida Power & Light	FL	120015-EI	Florida Office of Public Counsel	Capital structure
2012	South Carolina Electric & Gas	SC	2012-218-E	South Carolina Energy Users Committee	Accounting, cost of service, rate design, ROE, capital structure
2013	Progress Energy Carolinas	NC	E-2, Sub 1023	Carolina Utility Customers Assoc.	Accounting, cost of service, rate design, ROE, capital structure
2013	Duke Energy Carolinas	NC	E-7, Sub 1026	Carolina Utility Customers Assoc.	Rate design
2013	Jersey Central Power & Light	NJ	BPU ER12111052	Gerdau Ameristeel	Return on equity, capital structure
2013	Duke Energy Carolinas	SC	2013-59-E	South Carolina Energy Users Committee	Accounting, cost of service, rate design, ROE, capital structure
2013	Tampa Electric	FL	130040-EI	Florida Office of Public Counsel	Capital structure and financial integrity
2013	Piedmont Natural Gas	NC	G-9, Sub 631	Carolina Utility Customers Assoc.	Accounting, cost of service, rate design, ROE, capital structure
2014	Dominion Virginia Power	VA	PUE-2014-00033	Mead Westvaco	Recoverable fuel costs, hedging strategies
2014	Public Service Company of Colorado	CO	14AL-0660E	Colorado Healthcare Electric Coordinating Council	Return on equity, capital structure
2015	WEC Acquisition of Integrys	WI	9400-YO-100	Staff of Wisconsin Public Service Commission	Merger analysis
2015	Dominion Virginia Power	VA	PUE-2015-00027	Federal Executive Agencies	Return on equity
2015	South Carolina Electric & Gas	SC	2015-103-E	South Carolina Energy Users Committee	Return on equity
2015	Western Carolina University	NC	E-35, Sub 45	Western Carolina University	Accounting, cost of service, rate design, ROE, capital structure
2016	Sandpiper Energy	MD	9410	Maryland Office of People's Counsel	Return on equity, capital structure
2016	Washington Gas Light	DC	FC 1137	Washington, DC Office of People's Counsel	Return on equity, capital structure
2016	Florida Power & Light	FL	160021-EI	Florida Office of Public Counsel	Capital Structure
2016	Jersey Central Power & Light	NJ	EM15060733	NJ Division of Rate Counsel	Asset valuation
2016	Rockland Electric Company	NJ	ER16050428	NJ Division of Rate Counsel	Rate design
2016	Dominon NC Power	NC	E-22, Sub 532	Carolina Utility Customers Assoc.	Accounting, cost of service, rate design, ROE, capital structure
2017	Potomac Electric Power	DC	FC 1139	Healthcare Council of the National Capitol Area (HCNCA)	ROE and capital structure
2017	Columbia Gas of Maryland	MD	FC 9447	Maryland Office of People's Counsel	ROE and capital structure
2017	Washington Gas Light	DC	FC 1142	Washington, DC Office of People's Counsel	Merger analysis
2017	Duke Energy Progress	NC	E-2, Sub 1142	Carolina Utility Customers Assoc.	Accounting, cost of service, rate design, ROE, capital structure
2018	Public Service Electric & Gas	NJ	GR17070776	NJ Division of Rate Counsel	ROE and capital structure
2018	Duke Energy Carolinas	NC	E-7, Sub 1146	Carolina Utility Customers Assoc.	Accounting, cost of service, rate design, ROE, capital structure
2018	Elkton Gas/SJI	MD	FC 9475	Maryland Office of People's Counsel	Merger analysis
2018	Entergy Texas	TX	PUC 48371	Entergy Texas Cities	ROE
2018	Duke Energy Carolinas	SC	2018-3-E	South Carolina Energy Users Committee	Fuel case

Regulatory Cases of Kevin W. O'Donnell, CFA
Nova Energy Consultants, Inc.

Year	Name of Applicant	State Jusrisdiction	Docket No.	Client/ Employer	Case Issues
2018	Elkton Gas Company	MD	FC 9488	Maryland Office of People's Counsel	Accounting, ROE, capital structure
2018	Baltimore Gas & Electric	MD	FC9484	Maryland Office of People's Counsel	ROE, capital structure
2018	South Carolina Electric & Gas	SC	2017-370-E	South Carolina Energy Users Committee	Creditworthiness issue
2018	Jersey Central Power & Light	NJ	EO18070728	NJ Division of Rate Counsel	ROE and capital structure
2019	Duke Energy Carolinas	SC	2018-319-E	South Carolina Energy Users Committee	Accounting, rate design
2019	Duke Energy Progress	SC	2018-318-E	South Carolina Energy Users Committee	Accounting, rate design
2019	Public Service Electric and Gas	NJ	EO18060629	NJ Division of Rate Counsel	ROE and capital structure
2019	Potomac Electric Power	MD	FC 9602	Maryland Office of People's Counsel	ROE, capital structure
2019	Oklahoma Gas and Electric	OK	PUD 201800140	Sierra Club	Creditworthiness issue
2019	Peoples Natural Gas	PA	R-2018-3006818	Pennsylvania Office of Consumer Advocate	ROE, capital structure
2019	UGI Natural Gas	PA	R-2018-3006814	Pennsylvania Office of Consumer Advocate	ROE, capital structure
2019	Dominion Virginia Power	VA	PUR-2019-00050	Federal Executive Agencies	Return on Equity
2019	Piedmont Natural Gas	NC	G-9, Sub 743	Carolina Utility Customers Assoc.	Accounting, cost of service, rate design, ROE
2019	Pacific Gas & Electric, Southern California Edison, San Diego Gas & Electric	CA	A-1904014, et al	Federal Executive Agencies	ROE, capital structure
2019	Duke Energy Indiana	IN	Cause 45253	Federal Executive Agencies	ROE, capital structure
2020	Duke Energy Carolinas	NC	E-7 Sub 1214	Carolina Utility Customers Assoc.	Accounting, cost of service, rate design, ROE
2020	Duke Energy Progress	NC	E-2 Sub 1219	Carolina Utility Customers Assoc.	Accounting, cost of service, rate design, ROE
2020	Dominion Virginia Power	VA	PUR-2019-00154	Southern Environmental Law Center	Financial analysis of plant investment
2020	Southwest Electric Power Company	LA	U-35324	Alliance for Affordable Energy	Financial analysis of plant investment
2020	Texas Gas Company	TX	PUC 10928	Texas Gas Cities	ROE, capital structure
2020	Potomac Electric Power	DC	FC 1156	District of Columbia Office of Peoples Counsel	ROE, capital structure
2020	UGI Gas	PA	R-2019-3015162	Pennsylvania Office of Consumer Advocate	ROE, capital structure, creditworthiness
2020	Columbia Gas of Maryland	MD	FC 9644	Maryland Office of People's Counsel	ROE, capital structure
2020	Columbia Gas of Pennsylvania	PA	R-2020-3018835	Pennsylvania Office of Consumer Advocate	ROE, capital structure
2020	New Mexico Gas Company	NM	19-00317-UT	Federal Executive Agencies	ROE, capital structure, accounting, rate design, cost of service
2020	Washington Gas Light	DC	FC 1162	District of Columbia Office of Peoples Counsel	ROE, capital structure
2020	Dominion Energy South Carolina	SC	2020-125-E	South Carolina Energy Users Committee	Accounting, rate design
2021	Suez Water Company	NJ	BPU WR2011	NJ Division of Rate Counsel	ROE, capital structure, rate design
2021	Columbia Gas of Pennsylvania	PA	R-2021-3024296	Pennsylvania Office of Consumer Advocate	ROE, capital structure
2021	Florida Power & Light	FL	20210015-EI	Florida Office of Public Counsel	Capital structure, financial rate analysis

CUCA's Recommended Overall Rate of Return

O'Donnell Financial Analyses ROE Results		
DCF	7.50%	9.50%
CEA	9.00%	10.00%
CAPM	6.00%	8.00%
Recommendation	**9.00%**	

CUCA's Overall Recommendation			
Component	Ratio (%)	Cost Rate (%)	Weighted Cost Rate (%)
Long-Term Debt	48.52%	4.48%	2.17%
Short-Term Debt	1.48%	0.25%	0.00%
Common Equity	50.00%	9.00%	4.50%
Total Capitalization	**100.00%**		**6.68%**

O'Donnell Proxy Group
DCF Summary

Exhibit KWO-3

Company	Forecasted Annualized Dividend Yield			10-Year			5-Year			Value Line Forecasted (Est'd '18-'20 to '24-'26)			Average Plowback Growth Rate [4]	CFRA 3-Year Projected EPS CAGR [5]	Schwab LT Growth Rate 3-5 Years EPS (AEE) [6]
	13-Wks [1]	4-Wks [2]	Current [3]	EPS [4]	DPS [4]	BPS [4]	EPS [4]	DPS [4]	BPS [4]	EPS [4]	DPS [4]	BPS [4]			
Atmos Energy	2.7%	2.7%	2.8%	8.0%	5.0%	7.5%	9.0%	7.5%	10.0%	7.0%	7.5%	10.5%	4.1%	8.0%	7.8%
Chesapeake Utilities	1.6%	1.5%	1.5%	9.5%	6.5%	9.5%	9.0%	7.5%	11.0%	8.5%	8.0%	6.5%	6.7%	4.4%	-
New Jersey Resources	3.4%	3.5%	3.6%	6.0%	7.0%	7.5%	5.5%	6.5%	8.5%	2.0%	5.5%	5.5%	4.2%	8.0%	6.0%
NiSource Inc	3.5%	3.5%	3.6%	2.0%	-1.5%	-3.0%	0.5%	-3.0%	-5.0%	9.5%	4.5%	4.5%	3.9%	5.0%	-
Northwest Natural	3.6%	3.7%	3.7%	-1.5%	1.5%	1.0%	1.5%	0.5%	-	5.5%	0.5%	8.5%	1.9%	4.0%	5.5%
ONE Gas Inc	3.2%	3.3%	3.4%	-	-	-	10.0%	14.5%	3.0%	6.5%	7.0%	10.5%	3.5%	5.0%	5.0%
South Jersey Inds	5.0%	5.2%	5.3%	1.5%	6.5%	5.5%	-1.5%	4.0%	2.5%	11.5%	4.5%	6.5%	3.5%	6.0%	4.8%
Southwest Gas	3.5%	3.5%	3.5%	7.5%	8.5%	6.0%	5.5%	8.0%	7.0%	9.0%	4.5%	6.0%	4.2%	6.0%	4.0%
Spire Inc	3.7%	3.8%	4.0%	1.5%	4.5%	7.0%	4.5%	6.0%	5.5%	10.0%	4.5%	9.0%	3.1%	4.0%	-
UGI Corp	3.0%	3.0%	3.0%	5.5%	8.0%	7.0%	7.0%	7.5%	5.5%	6.0%	4.5%	7.0%	7.0%	8.0%	7.8%
AVERAGE	**3.3%**	**3.4%**	**3.4%**	**4.4%**	**5.1%**	**5.3%**	**5.1%**	**5.9%**	**5.3%**	**7.6%**	**5.1%**	**7.5%**	**4.2%**	**5.8%**	**5.8%**
Dominion Energy	4.0%	4.1%	4.2%	-1.5%	7.5%	5.0%	-5.0%	7.5%	9.0%	12.0%	-1.5%	4.0%	4.3%	7.0%	6.7%

Notes:

EPS = earnings per share
DPS = dividends per share
BPS = book value per share
Est'd '18-'20 to '24-'26

Sources:

[1]	The Value Line Investment Survey, Summary and Index:	6/18/2021	7/2/2021	7/9/2021	7/16/2021	7/23/2021	7/30/2021	8/6/2021	8/13/2021
[2]	The Value Line Investment Survey, Summary and Index:	8/20/2021	8/27/2021	9/3/2021	9/10/2021
[3]	The Value Line Investment Survey, Summary and Index:	9/10/2021
[4]	The Value Line Investment Survey/8/13/2021 (Electric Utilities East), 8/27/2021 (Nat Gas)
[5]	CFRA Stock Report earnings estimates as of 8/27/2021 as provided by Schwab.com
[6]	Schwab Equity Report earnings estimates as of 8/27/2021 as provided by Schwab.com

O'Donnell Proxy Group
Plowback Ratios

Company	2019	2020	2021E*	2024E* - 2026E*	AVERAGE
					Exhibit KWO-2, Exhibit KWO-5 pg. 2
Atmos Energy	4.6%	4.4%	4.0%	3.5%	4.1%
Chesapeake Utilities	6.5%	6.2%	6.5%	7.5%	6.7%
New Jersey Resources	4.6%	4.3%	4.5%	3.5%	4.2%
NiSource Inc	3.8%	3.7%	2.5%	5.5%	3.9%
Northwest Natural	1.4%	1.7%	2.0%	2.5%	1.9%
ONE Gas Inc	3.8%	3.7%	3.5%	3.0%	3.5%
South Jersey Inds	NMF	2.9%	2.0%	5.5%	3.5%
Southwest Gas	3.9%	4.0%	4.0%	5.0%	4.2%
Spire Inc	2.7%	NMF	3.5%	3.0%	3.1%
UGI Corp	5.6%	7.0%	8.0%	7.5%	7.0%
AVERAGE	**4.1%**	**4.2%**	**4.1%**	**4.7%**	**4.2%**
Dominion Energy	NMF	NMF	4.5%	4.0%	4.3%

*E = expected

Plowback = Percent retained to common equity

The Value Line Investment Survey: 8/13/2021 (Electric Utilities East), 8/27/2021 (Nat Gas)

O'Donnell Proxy Group
Returns on Book Value

Company	2019	2020	2021E*	2024E* - 2026E*
Atmos Energy	8.9%	8.6%	8.5%	7.5%
Chesapeake Utilities	10.9%	10.1%	11.0%	12.0%
New Jersey Resources	11.3%	10.6%	11.0%	10.5%
NiSource Inc	9.7%	10.5%	8.5%	11.5%
Northwest Natural	7.5%	7.9%	7.5%	7.0%
ONE Gas Inc	8.8%	8.8%	8.5%	6.5%
South Jersey Inds	7.2%	9.8%	9.5%	13.0%
Southwest Gas	8.5%	8.7%	9.0%	9.0%
Spire Inc	7.9%	3.2%	9.0%	7.5%
UGI Corp	10.8%	13.6%	14.0%	12.5%
AVERAGE	**9.2%**	**9.2%**	**9.7%**	**9.7%**

Dominion Energy	6.2%	6.7%	12.5%	12.0%

*E = expected

The Value Line Investment Survey: 8/13/2021 (Electric Utilities East), 8/27/2021 (Nat Gas)

O'Donnell: Proxy Group
DCF Results

O'Donnell DCF Calculation

	VL 13-Weeks	VL 4-Weeks	VL 1-Week
	a	**b**	**c**
	Exhibit KWO-2		
VL DIVIDEND YIELD AVERAGES	3.3%	3.4%	3.4%

Growth Rates	VL EPS	VL DPS	VL BPS
	d	**e**	**f**
	Exhibit KWO-2		
10-Year Growth Rate Averages	4.4%	5.1%	5.3%
5-Year Growth Rate Averages	5.1%	5.9%	5.3%
VL HISTORICAL GROWTH RATE AVERAGES	4.8%	5.5%	5.3%

	VL EPS	VL DPS	VL BPS	CFRA EPS	Schwab EPS
	g	**h**	**i**	**j**	**k**
	Exhibit KWO-2				
FORECASTED GROWTH RATE AVERAGES	7.6%	5.1%	7.5%	5.8%	5.8%

VL HISTORICAL GROWTH RATE AVERAGES +
VL DIV YIELD AVERAGES

	13-Weeks VL EPS	13-Weeks VL DPS	13-Weeks VL BPS
	= a + d	= a + e	= a + f
Rx	8.1%	8.8%	8.6%

	4-Weeks VL EPS	4-Weeks VL DPS	4-Weeks VL BPS
	= b + d	= b + e	= b + f
Rx	8.1%	8.9%	8.7%

	1-Week VL EPS	1-Week VL DPS	1-Week VL BPS
	= c + d	= c + e	= c + f
Rx	8.2%	8.9%	8.8%

	MIN ABOVE	AVG	MAX
	8.1%	8.6%	8.9%

VL HISTORICAL GROWTH RATE AVERAGES +
VL DIV YIELD RANGE

FORECASTED GROWTH RATE AVERAGES +
VL DIV YIELD AVERAGES

	13-Weeks VL EPS	13-Weeks VL DPS	13-Weeks VL BPS	13-Weeks CFRA EPS	13-Weeks Schwab EPS
	= a + g	= a + h	= a + i	= a + j	= a + k
Rx	10.9%	8.4%	10.8%	9.2%	9.2%

	4-Weeks VL EPS	4-Weeks VL DPS	4-Weeks VL BPS	4-Weeks CFRA EPS	4-Weeks Schwab EPS
	= b + g	= b + h	= b + i	= b + j	= b + k
Rx	10.9%	8.5%	10.8%	9.2%	9.2%

	1-Week VL EPS	1-Week VL DPS	1-Week VL BPS	1-Week CFRA EPS	1-Week Schwab EPS
	= c + g	= c + h	= c + i	= c + j	= c + k
Rx	11.0%	8.5%	10.9%	9.3%	9.3%

	MIN ABOVE	AVG	MAX
	8.4%	9.7%	11.0%

FORECASTED GROWTH RATE AVERAGES +
VL DIV YIELD RANGE

O'Donnell: Proxy Group
DCF Results

O'Donnell DCF Calculation (cont'd)

	VL DIV YIELD AVERAGES			VL PLOWBACK	VL PLOWBACK + VL DIV YIELD AVERAGES		
	13-Weeks	4-Weeks	1-Week	d	=a+d	=b+d	=c+d
	a	b	c		Rs		
	Exhibit KWO-2			Exhibit KWO-3			
Atmos Energy	2.7%	2.7%	2.8%	4.1%	6.8%	6.9%	6.9%
Chesapeake Utilities	1.6%	1.5%	1.5%	6.7%	8.3%	8.2%	8.2%
New Jersey Resources	3.4%	3.5%	3.6%	4.2%	7.6%	7.8%	7.8%
NiSource Inc	3.5%	3.5%	3.6%	3.9%	7.4%	7.4%	7.5%
Northwest Natural	3.6%	3.7%	3.7%	1.9%	5.5%	5.6%	5.6%
ONE Gas Inc	3.2%	3.3%	3.4%	3.5%	6.7%	6.8%	6.9%
South Jersey Inds	5.0%	5.2%	5.3%	3.5%	8.4%	8.7%	8.8%
Southwest Gas	3.5%	3.5%	3.5%	4.2%	7.7%	7.7%	7.7%
Spire Inc	3.7%	3.8%	4.0%	3.1%	6.8%	6.9%	7.1%
UGI Corp	3.0%	3.0%	3.0%	7.0%	10.0%	10.0%	10.0%
AVERAGE	3.3%	3.4%	3.4%	4.2%	7.5%	7.6%	7.6%

	MIN ABOVE	AVG	MAX
	7.5%	7.6%	7.6%

O'Donnell: Dominion Parent Company
DCF Results

O'Donnell DCF Calculation

	VL 13-Weeks **a**	VL 4-Weeks **b**	VL 1-Week **c**
	Exhibit KWO-2		
VL DIVIDEND YIELD AVERAGES	4.0%	4.1%	4.2%

Growth Rates	VL EPS **d**	VL DPS **e**	VL BPS **f**
	Exhibit KWO-2		
10-Year Growth Rate Averages	-1.5%	7.5%	5.0%
5-Year Growth Rate Averages	-5.0%	7.5%	9.0%
VL HISTORICAL GROWTH RATE AVERAGES	-3.3%	7.5%	7.0%

	VL EPS **g**	VL DPS **h**	VL BPS **i**	CFRA EPS **j**	Schwab EPS **k**
	Exhibit KWO-2				
FORECASTED GROWTH RATE AVERAGES	12.0%	-1.5%	4.0%	7.0%	6.7%

VL HISTORICAL GROWTH RATE AVERAGES + VL DIV YIELD AVERAGES

	VL EPS	VL DPS	VL BPS
13-Weeks	$Rx = a+d$: 0.8%	$Rx = a+e$: 11.5%	$= a+f$: 11.0%
4-Weeks	$Rx = b+d$: 0.9%	$= b+e$: 11.6%	$= b+f$: 11.1%
1-Week	$Rx = c+d$: 1.0%	$= c+e$: 11.7%	$= c+f$: 11.2%

VL HISTORICAL GROWTH RATE AVERAGES + VL DIV YIELD RANGE

MIN ABOVE	AVG	MAX
0.8%	7.9%	11.7%

FORECASTED GROWTH RATE AVERAGES + VL YIELD AVERAGES

	VL EPS	VL DPS	VL BPS	CFRA EPS	Schwab EPS
13-Weeks	$Rx = a+g$: 16.0%	$= a+h$: 2.5%	$= a+i$: 8.0%	$= a+j$: 11.0%	$= a+k$: 10.7%
4-Weeks	$Rx = b+g$: 16.1%	$= b+h$: 2.6%	$= b+i$: 8.1%	$= b+j$: 11.1%	$= b+k$: 10.8%
1-Week	$Rx = c+g$: 16.2%	$= c+h$: 2.7%	$= c+i$: 8.2%	$= c+j$: 11.2%	$= c+k$: 10.9%

FORECASTED GROWTH RATE AVERAGES + VL DIV YIELD RANGE

MIN ABOVE	AVG	MAX
2.5%	9.8%	16.2%

O'Donnell: Dominion Parent Company
DCF Results

O'Donnell DCF Calculation (cont'd)

VL DIV YIELD AVERAGES

	13-Weeks	4-Weeks	1-Week
	a	b	c
	Exhibit KWO-2		
Dominion Energy	4.0%	4.1%	4.2%
AVERAGE	4.0%	4.1%	4.2%

VL PLOWBACK

	d
	Exhibit KWO-3
Dominion Energy	4.3%
AVERAGE	4.3%

VL PLOWBACK + VL DIV YIELD AVERAGES

	13-Weeks = a + d	4-Weeks = b + d	1-Week = c + d
R+	8.3%	8.4%	8.5%
	8.3%	8.4%	8.5%

MIN ABOVE	AVG	MAX
8.3%	8.4%	8.5%

O'Donnell Proxy Group
CAPM Results

Natural Gas Utility Proxy Comparable Group

	30-Yr. Risk-Free Rate [1]	Average Proxy Group Beta [2]	Equity Risk Premium	Beta Adjusted Equity Risk Premium	Equity Cost Rate	Rounded Equity Cost Rate	
	a	b	c	d = b * c	= a + d	Rnd	
Treasury - Maximum	3.46%	0.90	4.25%	3.83%	7.29%	7.3%	
Treasury - Average	2.49%	0.90	4.25%	3.83%	6.32%	6.3%	
Treasury - Minimum	0.99%	0.90	4.25%	3.83%	4.82%	4.8%	LOW

	30-Yr. Risk-Free Rate [1]	Average Proxy Group Beta [2]	Equity Risk Premium	Beta Adjusted Equity Risk Premium	Equity Cost Rate	Rounded Equity Cost Rate	
	a	b	c	d = b * c	= a + d	Rnd	
Treasury - Maximum	3.46%	0.90	6.25%	5.63%	9.09%	9.1%	HIGH
Treasury - Average	2.49%	0.90	6.25%	5.63%	8.12%	8.1%	
Treasury - Minimum	0.99%	0.90	6.25%	5.63%	6.62%	6.6%	

Source:

[1] US Treasury Yields, October 28, 2016 through September 3, 2021
https://www.treasury.gov/resource-center/data-chart-center/interest-rates/Pages/TextView.aspx?

[2] The Value Line Investment Survey: 8/27/2021 (Nat Gas)

Dominion

	30-Yr. Risk-Free Rate [1]	Dominion Beta [2]	Equity Risk Premium	Beta Adjusted Equity Risk Premium	Equity Cost Rate	Rounded Equity Cost Rate	
	a	b	c	d = b * c	= a + d	Rnd	
Treasury - Maximum	3.46%	0.85	4.25%	3.61%	7.07%	7.1%	
Treasury - Average	2.49%	0.85	4.25%	3.61%	6.10%	6.1%	
Treasury - Minimum	0.99%	0.85	4.25%	3.61%	4.60%	4.6%	LOW

	30-Yr. Risk-Free Rate [1]	Dominion Beta [2]	Equity Risk Premium	Beta Adjusted Equity Risk Premium	Equity Cost Rate	Rounded Equity Cost Rate	
	a	b	c	d = b * c	= a + d	Rnd	
Treasury - Maximum	3.46%	0.85	6.25%	5.31%	8.77%	8.8%	HIGH
Treasury - Average	2.49%	0.85	6.25%	5.31%	7.80%	7.8%	
Treasury - Minimum	0.99%	0.85	6.25%	5.31%	6.30%	6.3%	

Source:

[1] US Treasury Yields, October 28, 2016 through September 3, 2021
https://www.treasury.gov/resource-center/data-chart-center/interest-rates/Pages/TextView.aspx?

[2] The Value Line Investment Survey: 8/13/2021 (Electric Utilities East)