



DEPARTMENT OF THE AIR FORCE
HEADQUARTERS AIR FORCE LEGAL OPERATIONS AGENCY

17 October 2019

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Gary L. Widerburg, Commission Secretary
Public Service Commission of Utah
Heber M. Wells Building
160 East 300 South
Salt Lake City UT 84114

Re: Docket 19-057-02

Dear Mr. Widerburg:

In order to comply with the scheduling order in this case, please find enclosed the direct testimony of Michael P. Gorman on behalf of the Federal Executive Agencies (FEA). We understand that acceptance of this testimony is subject to the approval of our October 8, 2019, petition for leave to intervene in this matter.

Thank you for your assistance with this matter. If you have questions regarding this document, please contact me at 850-283-6347 or by email at Scott.Kirk.2@us.af.mil.

Sincerely

A handwritten signature in black ink that reads "Scott L. Kirk". The signature is stylized with a large "S" and "K".

SCOTT L. KIRK, Maj, USAF
Counsel for Federal Executive Agencies

CERTIFICATE OF SERVICE

I **HEREBY CERTIFY** that a true and correct copy of the foregoing is sent on this 17th day of October 2019 by electronic mail to the individuals listed below:

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DATED this 17th day of October 2019.

/s/ Ebony M. Payton _____
Ebony M. Payton
FEA paralegal

BEFORE THE
PUBLIC SERVICE COMMISSION OF UTAH

IN THE MATTER OF THE)
APPLICATION OF DOMINION)
ENERGY UTAH TO INCREASE)
DISTRIBUTION RATES AND)
CHARGES AND MAKE TARIFF)
MODIFICATIONS)

DOCKET NO. 19-057-02

Direct Testimony and Exhibits of

Michael P. Gorman

On behalf of

Federal Executive Agencies

October 17, 2019

FEA Exhibit 1.0



**BEFORE THE
 PUBLIC SERVICE COMMISSION OF UTAH**

)	
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APPLICATION OF DOMINION)	
ENERGY UTAH TO INCREASE)	DOCKET NO. 19-057-02
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FEA Exhibit 1.01 through FEA Exhibit 1.19

BEFORE THE
PUBLIC SERVICE COMMISSION OF UTAH

_____))
IN THE MATTER OF THE))
APPLICATION OF DOMINION))
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DISTRIBUTION RATES AND))
CHARGES AND MAKE TARIFF))
MODIFICATIONS))
_____)

Direct Testimony of Michael P. Gorman

1 I. QUALIFICATIONS AND SUMMARY

2 I.A. Qualifications

3 Q PLEASE STATE YOUR NAME AND BUSINESS ADDRESS.

4 A My name is Michael P. Gorman. My business address is Brubaker &
5 Associates, Inc., 16690 Swingley Ridge Road, Suite 140, Chesterfield, MO
6 63017.

7 Q WHAT IS YOUR OCCUPATION AND BY WHOM ARE YOU EMPLOYED?

8 A I am a consultant in the field of public utility regulation and a Managing
9 Principal with the firm of Brubaker & Associates, Inc. ("BAI"), energy,
10 economic and regulatory consultants.

1 Q PLEASE DESCRIBE YOUR EDUCATION AND PROFESSIONAL
2 EXPERIENCE.

3 A My education and professional experience are detailed in my Appendix A to
4 this testimony.

5 Q ON WHOSE BEHALF ARE YOU TESTIFYING?

6 A I am offering testimony on behalf of the Federal Executive Agencies (“FEA”),
7 including Hill Air Force Base (“Hill AFB”).

8 **I.B. Summary**

9 Q WHAT IS THE PURPOSE OF YOUR TESTIMONY?

10 A I will recommend an overall rate of return for Dominion Energy Utah (“DEU” or
11 “the Company”), also known as Questar Gas Company (“QGC”), that
12 reasonably balances the interests of just and reasonable rates to customers,
13 and financial integrity and fair compensation to investors. In my analyses, I
14 consider the results of several market models and the current economic
15 environment and outlook for the electric and natural gas utility industry as well
16 as the financial integrity of DEU.

17 My silence in regard to any issue should not be construed as an
18 endorsement of DEU’s position.

1 **Q PLEASE SUMMARIZE YOUR RECOMMENDATIONS AND CONCLUSIONS**
2 **ON RETURN ON EQUITY.**

3 A For the reasons outlined in this testimony, I recommend the Public Service
4 Commission of Utah (the “Commission”) award DEU a return on common
5 equity of no higher than 9.0%.

6 I recommend an adjustment to DEU’s proposed ratemaking capital
7 structure. I recommend a common equity ratio of 52% rather than DEU’s
8 proposal to increase its common equity ratio to 55%. DEU’s proposal to
9 increase its common equity ratio to 55% is not cost justified and unnecessarily
10 increases its cost of service in this case. A 52% common equity ratio will
11 support DEU’s credit rating and financial integrity at a much lower cost to
12 customers than its proposal to increase its equity ratio in this case.

13 **Q WHAT OVERALL RATE OF RETURN DO YOU RECOMMEND BE USED TO**
14 **SET RATES FOR DEU IN THIS PROCEEDING?**

15 A As shown on my FEA Exhibit 1.01, based on my adjustments summarized
16 above I recommend an overall rate of return is 6.78%.

17 **Q WILL YOU RESPOND TO DEU’S RATE OF RETURN**
18 **RECOMMENDATION?**

19 A Yes. I respond to DEU witness Jordan K. Stephenson’s testimony supporting a
20 proposal to increase the common equity ratio of its ratemaking capital

1 structure from 52% in its last rate case to 55% in this case. I show the
2 increased common equity ratio is not needed to support DEU's credit rating
3 and financial integrity and, therefore this proposal unnecessarily increases its
4 cost of capital and prices to Utah customers. I also demonstrate that DEU
5 witness Robert H. Hevert's recommended return on equity of 10.50% is
6 significantly in excess of DEU's market cost of equity and is therefore
7 unreasonable, and should be rejected.

8 II. RATE OF RETURN

9 **Q PLEASE DESCRIBE THIS SECTION OF YOUR TESTIMONY.**

10 **A** In this section of my testimony, I will explain the analysis I performed to
11 determine a reasonable rate of return for DEU in this proceeding and present
12 the results of my analysis. I begin my estimate of a fair return on equity by
13 reviewing the authorized returns approved by the regulatory commissions in
14 various jurisdictions, and a market assessment of the regulated utility
15 industry's investment risk, credit standing, and stock price performance. I
16 used this information to get a sense of the market's perception of the risk
17 characteristics of regulated utility investments in general, which I then used to
18 produce an estimate of the market's return requirement for assuming
19 investment risk similar to DEU's regulated utility operations.

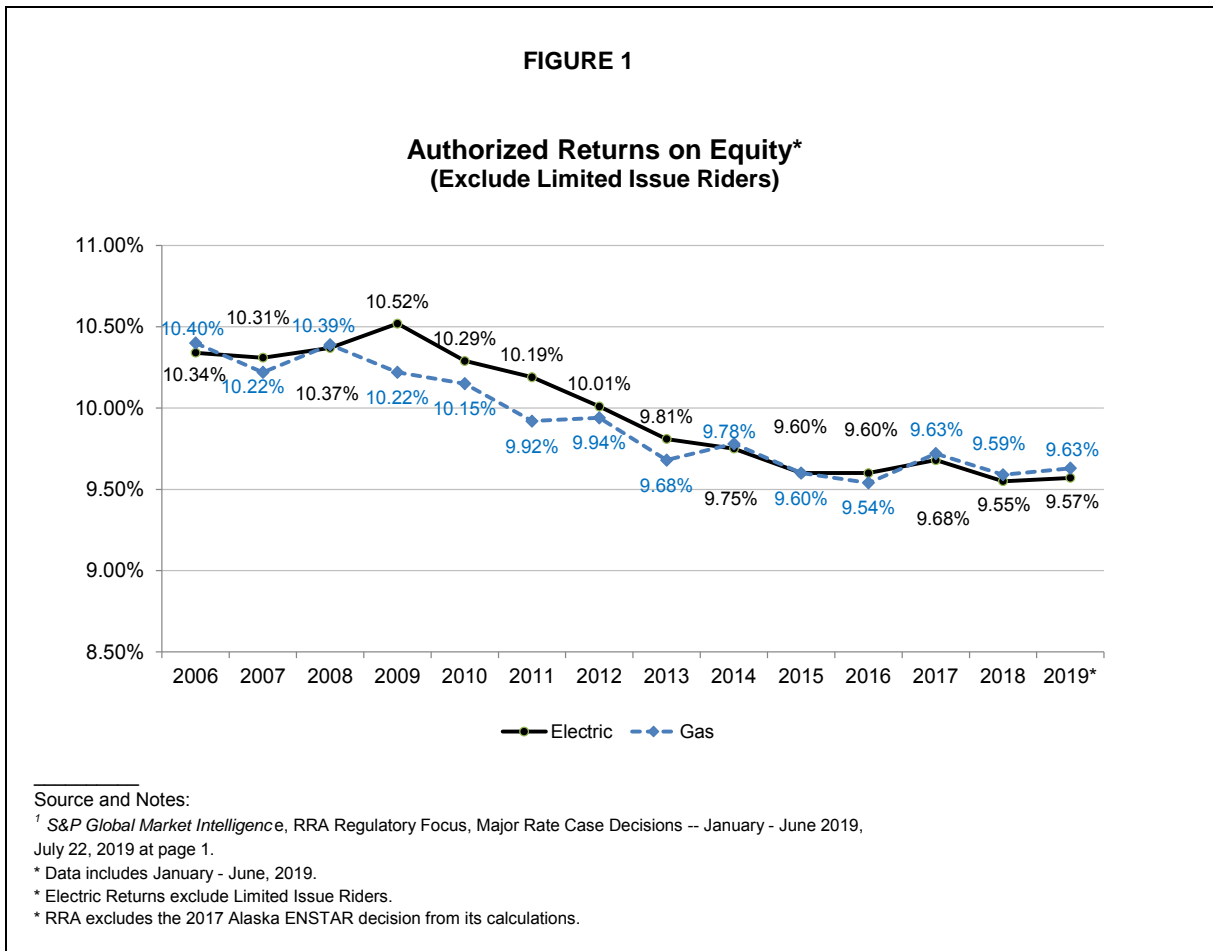
1 **II.A. Utility Industry Authorized Returns on Equity,**
2 **Access to Capital, and Credit Strength**

3 **Q PLEASE EXPLAIN THIS SECTION OF YOUR TESTIMONY.**

4 A In this section of my testimony I review observable market evidence of
5 regulatory commissions' authorized returns on equity, and the impacts on
6 utilities' bond ratings and access to capital. As shown in this section,
7 authorized returns on equity for utilities have dropped significantly over the last
8 several years, and have decreased to approximately 9.6% for the last 48
9 months. At these authorized returns on equity, the industry's credit standing
10 has improved and currently has a very strong investment grade bond rating.
11 Further, observable evidence shows that the industry as a whole at current
12 authorized returns on equity has enjoyed access to significant amounts of
13 capital under reasonable terms and prices.

14 **Q PLEASE DESCRIBE THE OBSERVABLE EVIDENCE ON TRENDS IN**
15 **AUTHORIZED RETURNS ON EQUITY FOR REGULATED UTILITIES.**

16 A As illustrated in Figure 1 below, authorized returns on equity for both electric
17 and gas utilities have declined over the last several years, and have been
18 reasonably stable around 9.6% since 2015.



1 **Q IS THERE REASON TO BELIEVE THAT THE CHANGE IN FEDERAL TAX**
 2 **LAW WILL INCREASE UTILITIES' COST OF EQUITY?**

3 **A** No. The 2017 change in tax law created by the Tax Cuts and Jobs Act
 4 ("TCJA") reduced the federal corporate income tax rate, which reduced
 5 utilities' cash flows as a result of declining deferred tax components.
 6 However, the effects of the TCJA are now fully reflected in observable market
 7 data including bond ratings. While bond rating analysts still have credit rating
 8 negative outlooks on certain utilities with marginal cash flows, a majority of the

1 industry's companies such as DEU have stable credit rating outlooks because
2 their cash flows, while reduced, are still adequate to support their bond ratings.
3 If the TCJA impacted utilities' cost of equity capital, then the impacts are
4 already reflected in the market data and proxy group return on equity results.
5 No adder or external adjustment is needed.

6 **Q HAVE NATURAL GAS UTILITY COMPANIES BEEN ABLE TO MAINTAIN**
7 **STRONG CREDIT RATINGS DURING PERIODS OF DECLINING**
8 **AUTHORIZED RETURNS ON EQUITY?**

9 A Yes. The credit rating changes for the natural gas utility industry over the last
10 several years are the result of marked improvement in overall financial health
11 and credit quality in the industry. As shown below in Table 1, in 2009,
12 approximately 50% of the natural gas utility industry was rated from BBB- to
13 BBB+, while 50% had a bond rating better than BBB+.

14 Over the subsequent decade, the overall industry rating improved
15 steadily. By 2015 none of the industry was rated below BBB+, and around
16 63% were A- or stronger. This trend of improved ratings continued until 2017.
17 Since 2018, even after the change in federal tax law, all natural gas utilities
18 have maintained credit ratings of BBB or greater.

TABLE 1
S&P Ratings by Category
Natural Gas Utility Subsidiaries
(Year End)

<u>Description</u>	<u>2009</u>	<u>2010</u>	<u>2011</u>	<u>2012</u>	<u>2013</u>	<u>2014</u>	<u>2015</u>	<u>2016</u>	<u>2017</u>	<u>2018</u>	<u>2019</u>
A or higher	50%	50%	50%	50%	38%	38%	38%	38%	38%	13%	14%
A-	0%	0%	0%	0%	25%	25%	25%	25%	25%	25%	29%
BBB+	13%	13%	25%	25%	13%	25%	38%	38%	38%	50%	43%
BBB	25%	25%	13%	13%	0%	0%	0%	0%	0%	13%	14%
BBB-	13%	13%	13%	13%	25%	13%	0%	0%	0%	0%	0%
Below BBB-	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Total	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%

Source: S&P CAPITAL IQ, downloaded 9/23/19.
 Note: Subsidiary ratings used.

1 DEU’s bond rating from S&P is BBB+,¹ which places it within the industry
 2 majority of credit ratings.

3 **Q HAVE UTILITIES BEEN ABLE TO ACCESS EXTERNAL CAPITAL AT**
 4 **REASONABLE COST TO SUPPORT CAPITAL EXPENDITURE**
 5 **PROGRAMS?**

6 A Yes. In its May 1, 2019 Utility Capital Expenditures Update report, *RRA*
 7 *Financial Focus*, a division of S&P Global Market Intelligence, made several
 8 relevant comments about utility investments generally:

- 9 • Projected 2019 capital expenditures for the 48 gas and
 10 electric utilities in the RRA universe are up to \$131.1 billion,
 11 over 9% higher than the prior forecast of \$119.0 billion in the
 12 fall 2018.
- 13 • Energy utility capex projections for future years increased
 14 modestly from our previous analysis in October 2018, rising
 15 to \$118.3 billion for 2020. We anticipate both the 2020 and
 16 2021 forecasts will increase as companies’ plans for future
 17 projects solidify and new opportunities arise.

¹Direct Testimony of Robert Hevert at 15.

- 1 • 2018 energy utility capex totaled \$115.4 billion, an all-time
2 high for the 48-utility group and 8% above 2017 energy utility
3 investment spending.

4 * * *

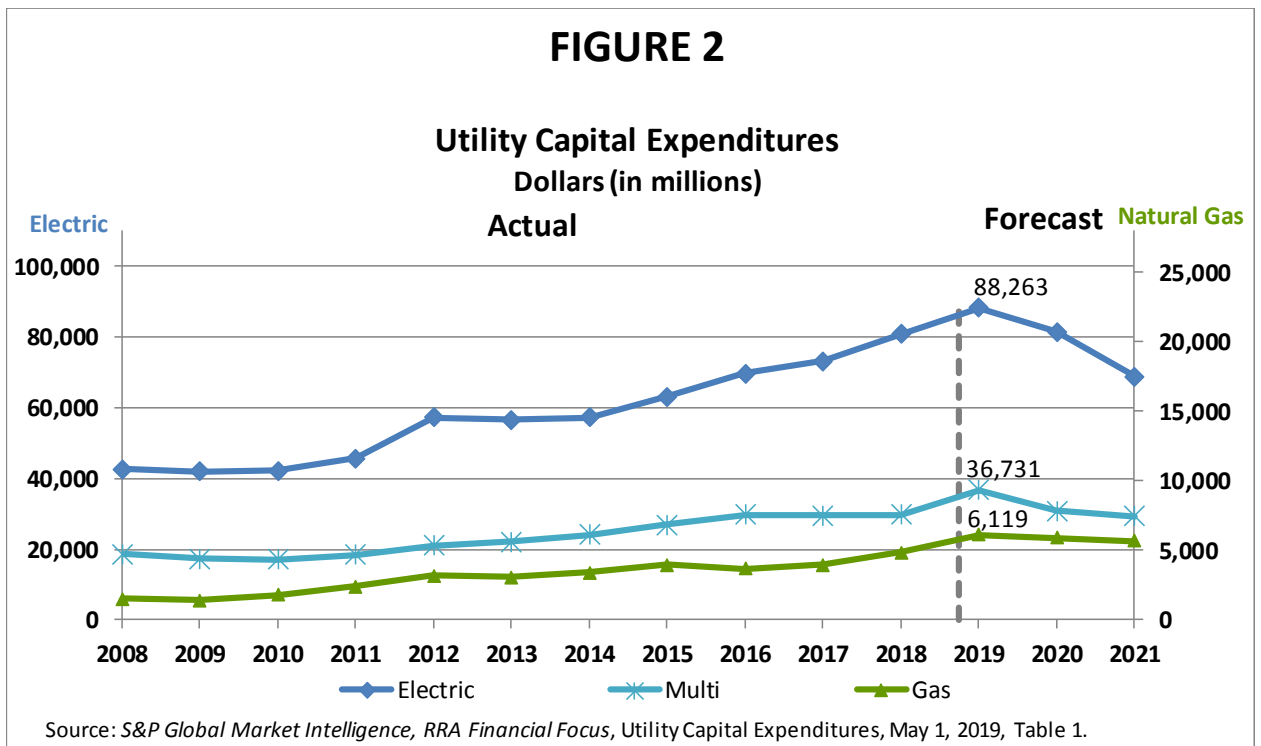
- 5 • The nation’s electric and gas utilities are investing in
6 infrastructure to upgrade aging transmission and distribution
7 systems, build new natural gas, solar and wind generation,
8 and implement new technologies, including smart meter
9 deployment, smart grid systems, cybersecurity measures and
10 battery storage. We expect considerable levels of spending to
11 serve as the basis for solid profit expansion for the
12 foreseeable future.

13 * * *

- 14 • The federal tax code changes that took effect at the start of
15 2018 preserved a provision strongly supported by the
16 industry to encourage investment: the deductibility of interest
17 expense for regulated utilities. Being among the most capital-
18 intensive industries, utilities would have had a much higher
19 cost of capital absent this provision, which would have
20 impacted capital investment planning and likely led to higher
21 utility bills.²

22 Regulated utility companies have accessed significant amounts of
23 capital to support substantial capital investments over at least the last ten
24 years. As shown below in Figure 2, capital expenditures for electric and
25 natural gas utilities have increased considerably over the period 2007 into
26 2019, and while forecasted capital expenditures are starting to abate, they
27 remain high.

²S&P Global Market Intelligence, RRA Financial Focus: “Utility Capital Expenditures Update,”
October 30, 2018.



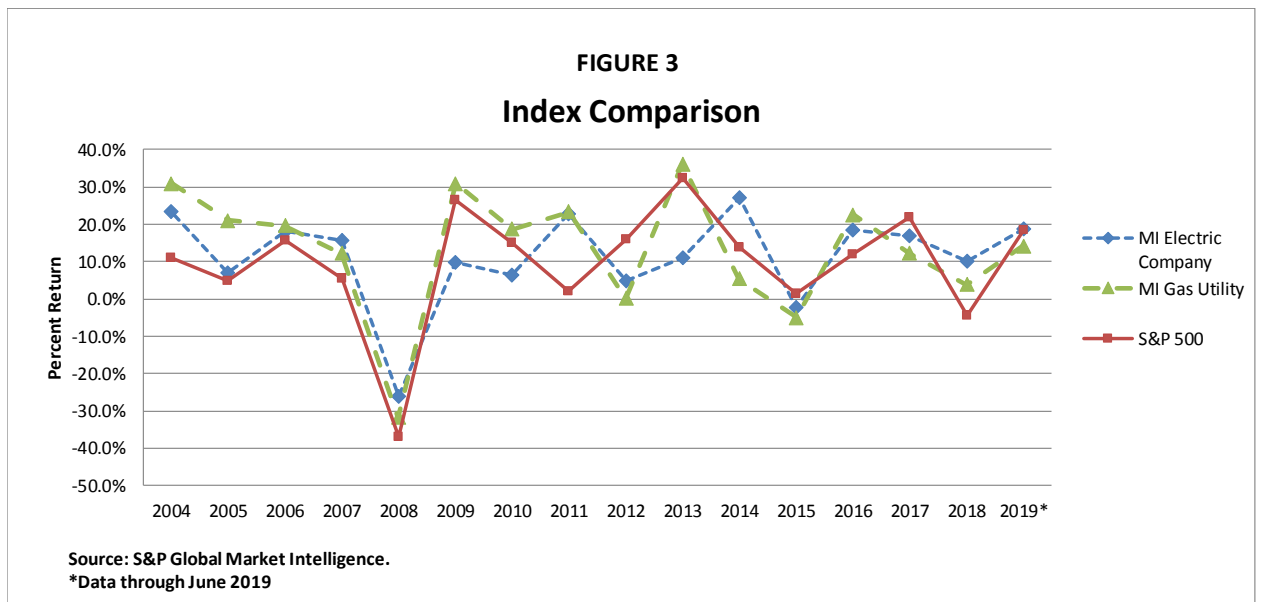
1 As shown in Figure 2 above, capital investment is significantly higher
 2 for the electric utility industry than the natural gas industry, but the two
 3 industries follow the same trend over the historical and forecasted periods.

4 **Q IS THERE EVIDENCE OF ROBUST VALUATIONS OF REGULATED**
 5 **UTILITY EQUITY SECURITIES?**

6 **A** Yes. Robust valuations are an indication that utilities can sell securities at
 7 high prices, which is a strong indication that they can access equity capital
 8 under reasonable terms and conditions, and at relatively low cost. As shown
 9 on FEA Exhibit 1.02, the historical valuation of electric and gas utilities
 10 followed by *Value Line*, based on their price-to-earnings (“P/E”) ratios, price-
 11 to-cash flow (“P/CF”) ratios, and market price-to-book value (“M/B”) ratios,

1 indicates that utility security valuations today are very strong and robust
2 relative to the last several years. These strong valuations of utility stocks
3 indicate that utilities have access to equity capital under reasonable terms at
4 relatively low cost.

5 As shown in Figure 3 below, S&P Global Market Intelligence (“MI”) has
6 recorded utility stock price performance compared to the market. The
7 industry’s stock performance data from 2004 through June 2019 shows that
8 the MI Electric Company and MI Gas Utility Indexes have followed the market
9 through downturns and recoveries. However, utility investments have been
10 less volatile during extreme market downturns. This more stable price
11 performance for utilities supports my conclusion that market participants
12 regard utility stock investments as moderate- to low-risk investments.



13 While utility stocks have not exhibited the same volatility as the S&P
14 500, stock prices have remained relatively strong, relative to the market in

1 general, and support the utilities' access to equity capital markets under
2 reasonable terms and prices.

3 **Q HOW SHOULD THE COMMISSION USE THIS MARKET INFORMATION IN**
4 **ASSESSING A FAIR RETURN FOR DEU?**

5 A Observable market evidence demonstrates that capital market costs are near
6 historically low levels. While authorized returns on equity have fallen to the
7 mid-9% range, utilities continue to have access to large amounts of external
8 capital, even as they are funding large capital expenditure programs.
9 Furthermore, utilities' investment-grade credit ratings are stable and have
10 improved, due in part to supportive regulatory treatment. The Commission
11 should carefully weigh all this important observable market evidence in
12 assessing a fair return on equity for DEU.

13 **II.B. Market Sentiments and Utility Industry Outlook**

14 **Q PLEASE DESCRIBE THE CREDIT RATING OUTLOOK FOR REGULATED**
15 **UTILITIES.**

16 A Regulated utilities' credit ratings have improved over the last few years. Credit
17 analysts have observed that utilities have strong access to capital at attractive
18 pricing (i.e., low capital costs), which has supported very large capital
19 programs.

1 S&P recently published a report titled “Industry Top Trends 2019: North
2 America Regulated Utilities.” In that report, S&P noted the following:

3 **Ratings Outlook:** Rating trends across regulated electric,
4 gas, and water utilities in North America remain mostly
5 stable, reflecting generally supportive regulatory oversight.
6 However, the industry’s financial measures weakened in
7 2018 as a result of U.S. tax reform, robust capital spending,
8 and flat to slightly negative load growth. In general, those
9 utilities most affected by these developments were those
10 who strategically operate with a minimal financial cushion at
11 their current rating.³

12 More recently, Moody’s placed the regulated utility industry on
13 “Negative” outlook, primarily to reflect the uncertainty and short-term cash flow
14 impacts of the TCJA, but also due to robust capital spending.

15 The outlook for the US regulated utility sector has changed
16 to negative from stable, reflecting increased financial risk
17 due to lower cash flow and holding company leverage at its
18 highest level since 2008. These factors will reduce the ratio
19 of funds from operations (FFO) to debt by up to 200 basis
20 points over the next 12-18 months.

21 » **Cash flow will decline due to a lower contribution**
22 **from deferred taxes.** The combination of the loss of
23 bonus depreciation and a lower tax rate as a result of the
24 Tax Cuts & Jobs Act (TCJA) means that utilities and their
25 holding companies will lose some of the cash flow
26 contribution from deferred taxes. Since 2010, deferred
27 taxes have contributed around 14% of consolidated FFO,
28 but we see this falling to around 8% through 2019. This
29 will drive down the consolidated ratio of FFO to debt, for a
30 peer group of 42 utility holding companies, from 17%
31 toward 15% over the outlook period.

32 » **Regulatory and management responses may not**
33 **improve financials until 2020.** Some state regulatory
34 commissions have issued credit-supportive rate orders to

³ S&P *Global Ratings*: “Industry Top Trends 2019: North America Regulated Utilities,” November 8, 2018, at 1.

1 offset reduced cash flow because of tax reform, and
2 several holding companies are executing plans to
3 strengthen their balance sheets. But it could take longer
4 than 12-18 months before sector-wide financial metrics
5 improve.

6 * * *

7 There are two principal approaches for a utility seeking to
8 take mitigating action against rising financial risk. The first
9 option is to pursue financial relief from regulators, which we
10 see most companies doing across the industry in response
11 to tax reform. The second is “self help,” where management
12 teams alter financial policies to improve cash flow or their
13 balance sheet. These efforts could include cutting operating
14 or capital costs, issuing equity, reducing debt, selling non-
15 core assets or slowing dividend growth. Such strategies
16 were popular during the early 2000s period known as “back
17 to basics,” when many companies shed unregulated and
18 international assets, reduced debt and focused on
19 strengthening core regulatory relationships.⁴

20 Similarly, Fitch states:

21 The Tax Cuts and Jobs Act signed into law on Dec. 22, 2017 has
22 negative credit implications for U.S. regulated utilities and utility
23 holding companies over the short-to-medium term, according to
24 Fitch Ratings. A reduction in customer bills to reflect lower
25 federal income taxes and return of excess accumulated deferred
26 income taxes is expected to lower revenues and funds from
27 operations (FFO) across the sector. Absent mitigating strategies
28 on the regulatory front, this is expected to lead to weaker credit
29 metrics and negative rating actions for those issuers that have
30 limited headroom to absorb the leverage creep.

31 * * *

32 Over a longer-term perspective, Fitch views tax reform as
33 modestly positive for utilities. The sector retained the
34 deductibility of interest expense, which would have otherwise
35 significantly impacted cost of capital for this capital intensive
36 sector. The exemption from 100% capex expensing is also

⁴ *Moody's Investors Service Outlook*: “2019 outlook shifts to negative due to weaker cash flows, continued high leverage,” June 18, 2018, at 1, 3 (emphasis in original).

1 welcome news for the sector, which has seen years of bonus
2 depreciation reduce rate base leading to lower earnings.
3 Finally, the reduction in federal income taxes lowers cost of
4 service to customers, providing utilities headroom to
5 increase rates for capital investments.⁵

6 **Q HOW IS THIS OBSERVABLE MARKET DATA USED IN FORMING YOUR**
7 **RECOMMENDED RETURN ON EQUITY AND OVERALL RATE OF**
8 **RETURN FOR DEU?**

9 A I consider observable market evidence and the impact on utility stock prices,
10 credit standing and access to capital in forming my recommended return on
11 equity for DEU in this proceeding. Market analysts have stated concerns
12 about the impact on cash flows due to the TCJA, the ability of utilities to fund
13 large capital programs, and to maintain strong credit standing. Because of
14 these concerns, I made assessments of DEU's cash flow implications from
15 cost of service in this proceeding, reflecting the impacts of the TCJA, and at
16 my proposed overall rate of return.

17 **II.C. Federal Reserve and Market Capital Costs Outlook**

18 **Q HAVE YOU ALSO CONSIDERED THE POTENTIAL IMPACT ON CAPITAL**
19 **MARKET COSTS DUE TO FEDERAL RESERVE MONETARY ACTIONS?**

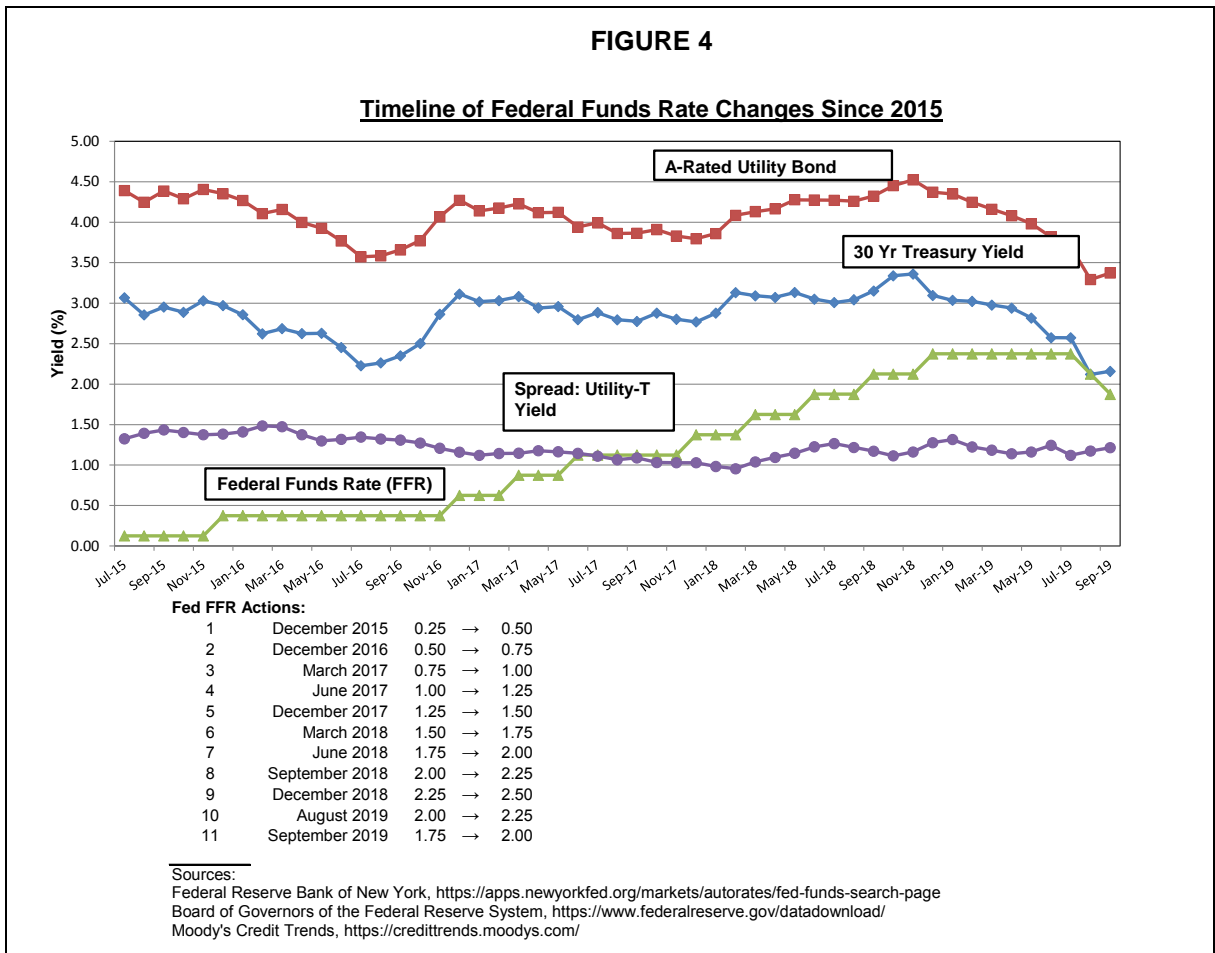
20 A Yes. I considered the Federal Reserve's impacts on short-term and long-term
21 market securities, and the resulting impact on short-term and long-term

⁵ *Fitch Ratings*: "Tax Reform Creates Near-term Credit Pressure for U.S. Utilities," January 24, 2018 (emphasis added).

1 interest rates. I find that the Federal Reserve's interactions in interest rate
2 markets are fully known to market participants, and these interactions are fully
3 considered in market participants' assessment of the current and projected
4 interest rate markets.

5 **Q IS THERE EVIDENCE THAT THE FEDERAL RESERVE'S**
6 **NORMALIZATION POLICY HAS HAD MINIMAL IMPACT ON LONG-TERM**
7 **DEBT RATES?**

8 A Yes. The Federal Reserve has raised the Federal Funds Rate nine times over
9 the last few years, raising the short-end of the yield curve. However,
10 comparable increases for longer maturity bonds have not been realized. This
11 has had the effect of flattening the yield curve. This is illustrated in Figure 4.



1 As shown in Figure 4 above, the actions taken by the Fed to increase
 2 the Federal Funds Rate have simply flattened the yield curve, and have not
 3 resulted in a corresponding increase in long-term interest rates. Importantly,
 4 the Fed's most recent action was to reduce the Federal Funds Rate due to a
 5 slowdown in the economy. In August and again in September of this year the
 6 Federal Funds Rate was reduced by 0.25%, from 2.50% to 2.00%. This Fed
 7 action suggests there will be limited pressure by the Fed at least over the next
 8 several years to increase short-term rates. Rather, the outlook for near-term

1 Fed monetary policy actions is for further reductions to short-term interest
2 rates.

3 The Fed monetary policy changes are important but significantly, the
4 Fed actions have largely impacted short-term interest rates but the cost of
5 common equity is impacted by long-term interest rates. Hence, the Fed
6 actions have not created pressure for the cost of equity capital to increase.

7 **Q HAS THE FEDERAL RESERVE BEEN PARTICIPATING IN LONG-TERM**
8 **INTEREST RATE MARKETS?**

9 A Yes, it has, but its participation in this market has been significantly reduced
10 and has not been proven to not have pressured long-term interest rates to
11 increase.

12 The Federal Reserve has recently implemented a strategy to begin to
13 unwind its balance sheet position in long-term interest rate securities
14 (Treasury and Mortgage Backed Securities (“MBS”)). The Federal Reserve
15 built up approximately \$4.7 trillion of Treasury and MBS security holdings as
16 part of a Quantitative Easing (“QE”) program that spanned 2008 to 2014.
17 During the QE program, the Federal Reserve procured long-term securities to
18 support the Federal Reserve’s monetary policy, mitigate long-term interest
19 rates, and to stimulate the economy. By purchasing these securities, the
20 Federal Reserve was making capital more readily available at lower long-term
21 interest rates.

1 The Federal Reserve has, however, reversed its policy and is reducing
2 its participation in long-term interest rate markets. In a Federal Reserve press
3 release on March 20, 2019, the Fed announced that it will further reduce its
4 already modest changes to its balance sheet normalization policy. The Fed
5 noted that it will slow the reduction in holdings of Treasury securities by
6 capping the reduction to \$15 billion beginning in May 2019 from \$30 billion
7 relative to its monthly redemptions. Further, Jerome H. Powell, Chairman of
8 the Board of Governors of the Federal Reserve System, in testimony provided
9 to the U.S. House of Representatives Committee on Financial Services in
10 Washington, D.C. on July 10, 2019, stated that the Fed will not be targeting an
11 expansionary monetary policy, and will move to reducing short-term interest
12 rates and a lesser impact on long-term interest rate markets.

13 **Q DO YOU BELIEVE MARKET PARTICIPANTS RECOGNIZE THE FED'S**
14 **MONETARY POLICY IN FORMING THEIR PROJECTIONS ON INTEREST**
15 **RATE MARKETS?**

16 **A**Yes. Because the Fed's actions are well-followed by market participants and
17 captured in independent economists' outlooks for changes in capital market
18 costs, the Fed's actions, along with all other relevant factors, are considered
19 by consensus professional economists in forming their outlooks for changes in
20 interest rates and capital market conditions.

1 Q WHAT DO INDEPENDENT ECONOMISTS' OUTLOOKS FOR FUTURE
2 INTEREST RATES INDICATE?

3 A Independent economists expect the current low capital costs to prevail over at
4 least the intermediate term. This is illustrated in projections for both short- and
5 long-term changes in interest rates. Further, there is a clear trend in
6 forecasted changes in interest rates over time, indicating that capital market
7 participants are becoming more comfortable with today's low-cost capital
8 market and expect it to prevail over at least the intermediate future.

9 For example, short-term projections suggest that the market expects
10 capital market costs to remain relatively low. Table 2, below, shows capital
11 cost projections over the next two years.

TABLE 2

Blue Chip Financial Forecasts
Projected Federal Funds Rate, 30-Year Treasury Bond Yields, and GDP Price Index

<u>Publication Date</u>	<u>1Q</u> <u>2019</u>	<u>2Q</u> <u>2019</u>	<u>3Q</u> <u>2019</u>	<u>4Q</u> <u>2019</u>	<u>1Q</u> <u>2020</u>	<u>2Q</u> <u>2020</u>	<u>3Q</u> <u>2020</u>	<u>4Q</u> <u>2020</u>	<u>1Q</u> <u>2021</u>
<u>Federal Funds Rate</u>									
May-19	2.4	2.4	2.4	2.4	2.4	2.4	2.4		
Jun-19	2.4	2.4	2.4	2.4	2.4	2.4	2.3		
Jul-19		2.4	2.2	2.0	1.9	1.9	1.8	1.8	
Aug-19		2.4	2.2	2.0	1.9	1.8	1.8	1.8	
Sep-19		2.4	2.1	1.8	1.7	1.6	1.6	1.6	
Oct-19			2.3	1.8	1.6	1.5	1.5	1.5	1.4
<u>T-Bond, 30 yr.</u>									
May-19	3.0	3.0	3.0	3.1	3.1	3.1	3.2		
Jun-19	3.0	2.9	3.0	3.0	3.1	3.1	3.1		
Jul-19		2.8	2.6	2.6	2.7	2.7	2.8	2.8	
Aug-19		2.8	2.6	2.6	2.6	2.7	2.7	2.7	
Sep-19		2.8	2.3	2.2	2.3	2.4	2.5	2.6	
Oct-19			2.3	2.1	2.2	2.2	2.3	2.4	2.5
<u>GDP Price Index</u>									
May-19	0.9	2.3	2.1	2.1	2.1	2.1	2.1		
Jun-19	0.9	2.4	2.1	2.1	2.1	2.1	2.1		
Jul-19		2.3	2.0	2.0	2.1	2.1	2.0	2.0	
Aug-19		2.4	2.0	2.0	2.0	2.1	2.1	2.0	
Sep-19		2.4	2.1	2.1	2.1	2.0	2.1	2.1	
Oct-19			2.1	2.0	2.0	2.0	2.1	2.0	2.0

Source and Note:
 Blue Chip Financial Forecasts, January through October 2019.
 Actual Yields in Bold

1 As this table shows, projected Treasury bond yields are not expected to
 2 increase significantly over the next two years. GDP growth is also expected to
 3 stay relatively stable over the forecast period.

TABLE 3

30-Year Treasury Bond Yield Actual Vs. Projection

<u>Description</u>	<u>Quarterly Average</u>	<u>2-Year Projected</u>	<u>5- to 10-Year Projected</u>
<u>2014</u>			
Q1	3.79%	4.40%	5.0% - 5.5%
Q2	3.69%	4.50%	
Q3	3.44%	4.40%	5.3% - 5.6%
Q4	3.26%	4.30%	
<u>2015</u>			
Q1	2.97%	4.00%	4.9% - 5.1%
Q2	2.55%	3.70%	
Q3	2.83%	4.00%	4.8% - 5.0%
Q4	2.84%	3.90%	
<u>2016</u>			
Q1	2.96%	3.80%	4.5% - 4.8%
Q2	2.72%	3.60%	
Q3	2.64%	3.40%	4.3% - 4.6%
Q4	2.29%	3.10%	
<u>2017</u>			
Q1	2.82%	3.70%	4.2% - 4.5%
Q2	3.05%	3.80%	
Q3	2.91%	3.70%	4.3% - 4.5%
Q4	2.82%	3.60%	
<u>2018</u>			
Q1	2.82%	3.60%	4.1% - 4.3%
Q2	3.02%	3.80%	
Q3	3.09%	3.80%	4.2% - 4.4%
Q4	3.07%	3.70%	
<u>2019</u>			
Q1	3.27%	3.60%	3.9% - 4.2%
Q2	3.01%	2.60%	

Sources:

Blue Chip Financial Forecasts,
 December 2013 through September 2019.

1 As Table 3 shows, in Q1 2019, independent economists were projecting
2 relatively low interest rates over the next five to ten years, and did not
3 anticipate significant increases in long-term 30-year Treasury bond yields
4 relative to current bond yields. Table 3 also illustrates that this current outlook
5 is significantly different than the outlook for substantial increases in interest
6 rates that prevailed for most of the last five years, and particularly prior to
7 2016. This is clear evidence that market participants are comfortable with
8 today's low capital market costs and expect them to prevail over at least the
9 intermediate period.

10 **II.D. DEU Investment Risk**

11 **Q PLEASE DESCRIBE THE MARKET'S ASSESSMENT OF DEU'S**
12 **INVESTMENT RISK.**

13 **A** The market's assessment of DEU's investment risk is described by credit
14 rating analysts' reports. DEU witness Mr. Robert Hevert testified that DEU's
15 current credit ratings from S&P and Moody's are BBB+, and A2, respectively,
16 with a "Stable" outlook.⁶ S&P makes the following statement about DEU's
17 ratings:

18 **Rating Action Rationale**

19 Our ratings affirmation of QGC reflects our assessment of QGC
20 as a core subsidiary of parent Dominion Energy Inc. (DEI). We
21 assess QGC as a core subsidiary of DEI, under our group rating
22 methodology. This reflects our view that QGC is highly unlikely to
23 be sold, has a strong long-term commitment from senior

⁶Hevert Direct Testimony at 15.

1 management, is successful at what it does, and contributes
2 meaningfully to the group. As a result, we assess issuer credit
3 rating on QGC as in line with parent DEI's 'BBB+' group credit
4 profile.

5 Our revised stand-alone assessment of QGC reflects our
6 assessment of the company's excellent business risk profile and
7 significant financial risk profile. We expect a modest weakening
8 of the financial measures within the company's financial risk
9 profile, reflecting the assumed cash-flow impact of tax reform.
10 On a forward-looking basis, we expect funds from operations
11 (FFO) to debt at about 18%, previously we expected FFO to debt
12 of about 20%.

13 Our stand-alone business risk assessment of QGC reflects the
14 utility's low-risk regulated natural gas distribution business,
15 above-average size, and its effective management of regulatory
16 risk.

17 QGC serves approximately 1 million customers in Utah (about
18 97%), southwestern Wyoming, and southeastern Idaho.
19 Constructive regulation in Utah strengthens the company's
20 management of regulatory risk incorporating a credit supportive
21 rate design and the use of multiple regulatory mechanisms
22 including a fuel cost adjustment, a weather normalization
23 adjustment, decoupling, and an infrastructure cost tracking
24 adjustment. QGC cash flows are generally stable and largely
25 insulated from fluctuations in gas prices, weather, and usage.
26 Furthermore, most of the customer base is residential and
27 commercial, providing an additional measure of cash flow
28 stability. Marginally affecting the company's business risk profile
29 is the general lack of business or regulatory diversity.

30 * * *

31 We assess the company's financial measures using more
32 moderate financial benchmarks compared to the typical
33 corporate issuer, reflecting its low-risk regulated utility business
34 and its effective management of regulatory risk.⁷

⁷Standard & Poor's RatingsDirect, Research Update: "Questar Gas Co. Ratings Affirmed, Stand-Alone Credit Profile Revised To 'a-' On Tax Reform; Outlook Remains Negative" February 26, 2018 at 2-4, emphasis added.

1 **II.E. DEU's Proposed Capital Structure**

2 **Q WHAT IS THE COMPANY'S PROPOSED CAPITAL STRUCTURE?**

3 A DEU witness Jordan K. Stephenson sponsors the Company's projected capital
4 structure, which is shown below in Table 4. The proposed capital structure is
5 based on the projected capital structure for the 12-month calendar test year
6 period ending on December 31, 2020.

<u>Description</u>	<u>Weight</u>
Long-Term Debt	45.00%
Common Equity	<u>55.00%</u>
Total Regulatory Capital Structure	100.00%

Source: Stephenson Direct at 20.

7 **Q HOW DID DEU DEVELOP ITS PROPOSED CAPITAL STRUCTURE?**

8 A DEU witness Stephenson forecasted the total long-term debt and common
9 equity for the 2020 test year and calculated a long-term debt ratio of 39.9%
10 and common equity ratio of 60.1%.⁸ Based off this analysis he determined
11 that the appropriate capital structure consisted of 55% equity and 45% debt.

⁸ DEU Exhibit 3.31.

1 **Q WHAT CAPITAL STRUCTURE WAS USED TO SET DEU'S RATES IN ITS**
2 **PRIOR RATE CASE?**

3 A In Docket No. 13-057-05, the Commission approved a 52.07% common equity
4 ratio with a long-term debt ratio of 47.93%.⁹

5 **Q IS THE COMPANY'S PROPOSAL TO INCREASE ITS COMMON EQUITY**
6 **RATIO TO 55% FROM THE 52% PREVIOUSLY APPROVED FOR**
7 **RATEMAKING PURPOSES REASONABLE?**

8 A No. The Company's proposal to increase its common equity ratio is
9 unreasonable for several reasons.

10 First, the Company's actual total investor capital structure over the
11 period 2014-2018 has maintained a relatively stable common equity ratio of
12 total capital, and its bond rating during this period has been stable. As shown
13 on my FEA Exhibit 1.01, page 2, the capital structure including short-term debt
14 over the period 2015-2017 has been relatively stable at around 42% to 44%
15 common equity. The Company's common equity ratio increased in 2018
16 largely due to an equity infusion from its parent company of around \$203
17 million.¹⁰ However, DEU witness Stephenson has not demonstrated that
18 increasing the common equity ratio is cost justified and necessary to support
19 DEU's credit rating and financial integrity. These credit rating and financial
20 integrity targets should be managed while maintaining a competitive cost of

⁹ Docket No. 13-057-05, Report and Order at 17.

¹⁰ DEU witness Jordan Stephenson, DEU Exhibit 3.31, line 20.

1 service for retail customers. Indeed, I will demonstrate later in my testimony
2 that the test year financial metrics at a 52% common equity ratio will support
3 DEU's current BBB+ bond rating.

4 Further, a common equity ratio of around 52% is reasonably aligned
5 with the proxy group's common equity ratio used to estimate a fair return on
6 equity for DEU in this proceeding.

7 Finally, a ratemaking capital structure of around 52% common equity is
8 reasonably consistent with the gas industry authorized common equity ratios
9 used to set rates for regulated gas delivery companies. Indeed, as shown in
10 Table 5 below, the capital structure used to set rates for electric and gas
11 utilities has been relatively stable at around 50% to 51% equity and 49% to
12 50% debt over at least the last five years.

TABLE 5
Trends in State Authorized Common Equity Ratios
(Industry)

<u>Line</u>	<u>Year</u> (1)	<u>Natural Gas¹</u>		<u>Electric¹</u>	
		<u>Average</u> (2)	<u>Median</u> (3)	<u>Average</u> (4)	<u>Median</u> (5)
1	2013	51.16%	50.43%	50.12%	51.03%
2	2014	51.90%	51.99%	50.28%	50.00%
3	2015	49.79%	50.33%	50.24%	50.48%
4	2016	51.85%	51.35%	49.70%	49.99%
5	2017	51.13%	51.76%	50.02%	49.85%
6	2018	51.56%	51.40%	49.28%	50.23%
7	Min	49.79%	50.33%	49.28%	49.85%
8	Max	51.90%	51.99%	50.28%	51.03%
9	Average	51.23%	51.21%	49.94%	50.26%
10	Median	51.36%	51.38%	50.07%	50.12%

Source and Notes:

¹ S&P Global Market Intelligence, downloaded 1/29/2019

- Excludes Arkansas, Florida, Indiana and Michigan because they include non-investor capital.

1 Q WHAT RATEMAKING CAPITAL STRUCTURE DO YOU RECOMMEND BE
 2 USED TO SET DEU'S RATES IN THIS PROCEEDING?

3 A I recommend a capital structure composed of 52% common equity and 48%
 4 long-term debt. My proposed capital structure is shown below in Table 6.

<u>Description</u>	<u>Weight</u>
Long-Term Debt	48.00%
Common Equity	<u>52.00%</u>
Total Regulatory Capital Structure	100.00%

Source: FEA Exhibit 1.01.

1 **II.F. Embedded Cost of Debt**

2 **Q WHAT IS THE COMPANY'S EMBEDDED COST OF LONG-TERM DEBT?**

3 A DEU witness Stephenson is proposing an embedded cost of long-term debt of
4 4.37% in the 2020 test period. As discussed on page 20 of Mr. Stephenson's
5 direct testimony, DEU's embedded cost of long-term debt is based on the
6 forecasted 2020 test year period. The embedded cost of debt is developed in
7 DEU Exhibit 3.31. Mr. Stephenson includes the total interest from long-term
8 debt (FERC Account 427) and the amortization of debt discount and expense
9 (FERC Account 428) in the total long-term debt cost for the test period.

1 **III. RETURN ON EQUITY**

2 **Q PLEASE DESCRIBE WHAT IS MEANT BY A “UTILITY’S COST OF**
3 **COMMON EQUITY.”**

4 **A** A utility’s cost of common equity is the expected return that investors require
5 on an investment in the utility. Investors expect to earn their required return
6 from receiving dividends and through stock price appreciation.

7 **Q PLEASE DESCRIBE THE FRAMEWORK FOR DETERMINING A**
8 **REGULATED UTILITY’S COST OF COMMON EQUITY.**

9 **A** In general, determining a fair cost of common equity for a regulated utility has
10 been framed by two hallmark decisions of the U.S. Supreme Court: Bluefield
11 Water Works & Improvement Co. v. Pub. Serv. Comm’n of W. Va., 262 U.S.
12 679 (1923) and Fed. Power Comm’n v. Hope Natural Gas Co., 320 U.S. 591
13 (1944).

14 These decisions identify the general financial and economic standards
15 to be considered in establishing the cost of common equity for a public utility.
16 Those general standards provide that rates will be just and reasonable and the
17 authorized return will: (1) be sufficient to maintain financial integrity that
18 operates under efficient and economical management; (2) attract capital under
19 reasonable terms; and (3) be commensurate with returns investors could earn
20 by investing in other enterprises of comparable risk.

1 **Q PLEASE DESCRIBE THE METHODS YOU HAVE USED TO ESTIMATE**
2 **DEU’S COST OF COMMON EQUITY.**

3 A I have used several models based on financial theory to estimate DEU’s cost
4 of common equity. These models are: (1) a constant growth Discounted Cash
5 Flow (“DCF”) model using consensus analysts’ growth rate projections; (2) a
6 constant growth DCF using sustainable growth rate estimates; (3) a multi-
7 stage growth DCF model; (4) a Risk Premium model; and (5) a Capital Asset
8 Pricing Model (“CAPM”). I have applied these models to a group of publicly
9 traded utilities with investment risk similar to DEU.

10 **III.A. Risk Proxy Group**

11 **Q PLEASE DESCRIBE HOW YOU IDENTIFIED A PROXY UTILITY GROUP**
12 **THAT COULD BE USED TO ESTIMATE DEU’S CURRENT MARKET COST**
13 **OF EQUITY.**

14 A My proxy group is the same as the full utility proxy group relied on by DEU’s
15 witness, Robert Hevert, with one exception – I excluded Chesapeake Utilities
16 Corporation. This company is not rated by S&P or Moody’s. I would note that
17 a proxy group risk selection criterion used by Mr. Hevert was to include only
18 companies with senior unsecured or corporate credit ratings from S&P. Mr.
19 Hevert made an exception to this proxy group risk selection criterion based on
20 its *Value Line* financial strength rating and National Association of Insurance
21 Commissioners rating for this company. I reject Mr. Hevert’s conclusion that a

1 *Value Line* financial strength rating is equivalent to a bond rating, or that the
2 National Association of Insurance Commissioners' rating can be used as a
3 proxy for either an S&P or Moody's rating. My proxy group relies on the
4 opinion of the same corporate rating agencies, S&P and Moody's, on the
5 credit strength of each of the companies included in the proxy group and the
6 subject company, in this case DEU. Based on this consistent assessment of
7 credit strength and financial investment risk, I believe my proxy group more
8 accurately aligns with market participants' perceptions of comparable
9 investment risk.

10 **Q WHY IS IT APPROPRIATE TO EXCLUDE COMPANIES THAT DO NOT**
11 **HAVE A BOND RATING FROM S&P OR MOODY'S?**

12 A Credit rating agencies undertake a detailed assessment of the business and
13 financial risk in awarding a bond rating. This bond rating is available to public
14 capital market participants, and is a generally independent assessment of the
15 investment risk of the subject company. While a bond rating generally
16 assesses the credit strength of the company, it is useful in determining the
17 predictability and strength of the company's cash flows to meet its financial
18 obligations including cash needed to meet common equity shareholders'
19 investment return outlooks. For these reasons, credit ratings from S&P and
20 Moody's are information that is available to the investment community to
21 assess the overall investment risk of the underlying company.

1 As Chesapeake Utilities does not have a bond rating from S&P or
2 Moody's, it is not possible to rely on independent market participants'
3 assessment of its investment risk in comparison to DEU. Because credit
4 rating data was not available to determine that it is reasonably comparable in
5 investment risk to DEU, it was excluded from the proxy group.

6 **Q PLEASE DESCRIBE WHY YOU BELIEVE YOUR PROXY GROUP IS**
7 **REASONABLY COMPARABLE IN INVESTMENT RISK TO DEU.**

8 A The proxy group shown in FEA Exhibit 1.03, has an average credit rating from
9 S&P of A-, which is one investment grade bond rating above DEU's bond
10 rating of BBB+. The proxy group has an average credit rating from Moody's of
11 A3, which is one investment grade bond rating below DEU's bond rating of A2.

12 The proxy group has an average common equity ratio of 53.9% from
13 *Value Line* for 2018 (excluding short-term debt), and a 47.2% common equity
14 ratio (including short-term debt) from S&P. In comparison, the common equity
15 ratio previously used to set rates for DEU of 52% is reasonably comparable to
16 these proxy group common equity ratios excluding short-term debt.

17 Based on this information, I believe my proxy group is reasonably
18 comparable in investment risk to DEU.

1 **III.B. Discounted Cash Flow Model**

2 **Q PLEASE DESCRIBE THE DCF MODEL.**

3 A The DCF model posits that a stock price is valued by summing the present
4 value of expected future cash flows discounted at the investor's required rate
5 of return or cost of capital. This model is expressed mathematically as follows:

6
$$P_0 = \frac{D_1}{(1+K)^1} + \frac{D_2}{(1+K)^2} + \dots + \frac{D_\infty}{(1+K)^\infty} \quad (\text{Equation 1})$$

8 P_0 = Current stock price

9 D = Dividends in periods 1 - ∞

10 K = Investor's required return

11 This model can be rearranged in order to estimate the discount rate or
12 investor-required return, known as "K." If it is reasonable to assume that
13 earnings and dividends will grow at a constant rate, then Equation 1 can be
14 rearranged as follows:

15
$$K = D_1/P_0 + G \quad (\text{Equation 2})$$

16 K = Investor's required return

17 D_1 = Dividend in first year

18 P_0 = Current stock price

19 G = Expected constant dividend growth rate

20 Equation 2 is referred to as the annual "constant growth" DCF model.

21 **Q PLEASE DESCRIBE THE INPUTS TO YOUR CONSTANT GROWTH DCF**
22 **MODEL.**

23 A As shown in Equation 2 above, the DCF model requires a current stock price,
24 expected dividend, and expected growth rate in dividends.

1 **Q WHAT STOCK PRICE DID YOU USE IN YOUR CONSTANT GROWTH DCF**
2 **MODEL?**

3 A I relied on the average of the weekly high and low stock prices of the utilities in
4 the proxy group over a 13-week period ending on September 27, 2019. An
5 average stock price is less susceptible to market price variations than a price
6 at a single point in time. Therefore, an average stock price is less susceptible
7 to aberrant market price movements, which may not reflect the stock's
8 long-term value.

9 A 13-week average stock price reflects a period that is still short
10 enough to contain data that reasonably reflects current market expectations,
11 but the period is not so short as to be susceptible to market price variations
12 that may not reflect the stock's long-term value. In my judgment, a 13-week
13 average stock price is a reasonable balance between the need to reflect
14 current market expectations and the need to capture sufficient data to smooth
15 out aberrant market movements.

16 **Q WHAT DIVIDEND DID YOU USE IN YOUR CONSTANT GROWTH DCF**
17 **MODEL?**

18 A I used the most recently paid quarterly dividend as reported in *Value Line*.¹¹
19 This dividend was annualized (multiplied by 4) and adjusted for next year's

¹¹*The Value Line Investment Survey*, August 30, 2019.

1 growth to produce the D_1 factor for use in Equation 2 above. In other words, I
2 calculate D_1 by multiplying the annualized dividend (D_0) by $(1+G)$.

3 **Q WHAT DIVIDEND GROWTH RATES DID YOU USE IN YOUR CONSTANT**
4 **GROWTH DCF MODEL?**

5 A There are several methods that can be used to estimate the expected growth
6 in dividends. However, regardless of the method, to determine the market-
7 required return on common equity, one must attempt to estimate investors'
8 consensus about what the dividend, or earnings growth rate, will be and not
9 what an individual investor or analyst may use to make individual investment
10 decisions.

11 As predictors of future returns, securities analysts' growth estimates
12 have been shown to be more accurate than growth rates derived from
13 historical data.¹² That is, assuming the market generally makes rational
14 investment decisions, analysts' growth projections are more likely to influence
15 investors' decisions, which are captured in observable stock prices, than
16 growth rates derived only from historical data.

17 **Q HOW DO YOU DEVELOP A DIVIDEND GROWTH FOR A DCF STUDY?**

18 A For my constant growth DCF analysis, I have relied on a consensus, or mean,
19 of professional securities analysts' earnings growth estimates as a proxy for

¹²See, e.g., David Gordon, Myron Gordon, and Lawrence Gould, "Choice Among Methods of Estimating Share Yield," *The Journal of Portfolio Management*, Spring 1989.

1 investor consensus dividend growth rate expectations. I used the average of
2 analysts' growth rate estimates from three sources: Zacks, MI, and Yahoo. All
3 such projections were available on September 27, 2019, and all were reported
4 online.

5 Each consensus growth rate projection is based on a survey of
6 securities analysts. There is no clear evidence whether a particular analyst is
7 most influential on general market investors. Therefore, a single analyst's
8 projection does not as reliably predict consensus investor outlooks as does a
9 consensus of market analysts' projections. The consensus estimate is a
10 simple arithmetic average, or mean, of surveyed analysts' earnings growth
11 forecasts. A simple average of the growth forecasts gives equal weight to all
12 surveyed analysts' projections. Therefore, a simple average, or arithmetic
13 mean, of analyst forecasts is a good proxy for market consensus expectations.

14 **Q WHAT ARE THE GROWTH RATES YOU USED IN YOUR CONSTANT**
15 **GROWTH DCF MODEL?**

16 A The growth rates I used in my DCF analysis are shown in FEA Exhibit 1.04.
17 The average growth rate for my proxy group is 5.74%.

1 Q WHAT ARE THE RESULTS OF YOUR CONSTANT GROWTH DCF
2 MODEL?

3 A As shown in FEA Exhibit 1.05, the average and median constant growth DCF
4 returns for my proxy group for the 13-week analysis are 8.47% and 8.28%,
5 respectively.

6 Q DO YOU HAVE ANY COMMENTS ON THE RESULTS OF YOUR
7 CONSTANT GROWTH DCF ANALYSIS?

8 A Yes. The constant growth DCF analysis for my proxy group is based on a
9 group average long-term sustainable growth rate of 5.74%. The three- to five-
10 year growth rates are higher than my estimate of a maximum long-term
11 sustainable growth rate of 4.10%, which I discuss later in this testimony. I
12 believe the constant growth DCF analysis produces a reasonable high-end
13 return estimate.

14 Q HOW DID YOU ESTIMATE A MAXIMUM LONG-TERM SUSTAINABLE
15 GROWTH RATE?

16 A A long-term sustainable growth rate for a utility stock cannot exceed the
17 growth rate of the economy in which it sells its goods and services. Hence,
18 the long-term maximum sustainable growth rate for a utility investment is best
19 proxied by the projected long-term Gross Domestic Product ("GDP"). *Blue*
20 *Chip Financial Forecasts* projects that over the next 5 and 10 years, the U.S.

1 nominal GDP will grow at an annual rate of approximately 4.10%. These GDP
2 growth projections reflect a real growth outlook of around 2.0% and an inflation
3 outlook of around 2.1% going forward. As such, the average growth rate over
4 the next 10 years is around 4.10%, which I believe is a reasonable proxy of
5 long-term sustainable growth.¹³

6 In my multi-stage growth DCF analysis, I discuss academic and
7 investment practitioner support for using the projected long-term GDP growth
8 outlook as a maximum sustainable growth rate projection. Hence, using the
9 long-term GDP growth rate as a conservative projection for the maximum
10 sustainable growth rate is logical, and is generally consistent with academic
11 and economic practitioner accepted practices.

12 **III.C. Sustainable Growth DCF**

13 **Q PLEASE DESCRIBE HOW YOU ESTIMATED A SUSTAINABLE**
14 **LONG-TERM GROWTH RATE FOR YOUR SUSTAINABLE GROWTH DCF**
15 **MODEL.**

16 **A** A sustainable growth rate is based on the percentage of the utility's earnings
17 that is retained and reinvested in utility plant and equipment. These
18 reinvested earnings increase the earnings base (rate base). Earnings grow
19 when plant funded by reinvested earnings is put into service, and the utility is
20 allowed to earn its authorized return on such additional rate base investment.

¹³*Blue Chip Financial Forecasts*, June 1, 2019, at 14.

1 The internal growth methodology is tied to the percentage of earnings
2 retained in DEU and not paid out as dividends. The earnings retention ratio is
3 1 minus the dividend payout ratio. As the payout ratio declines, the earnings
4 retention ratio increases. An increased earnings retention ratio will fuel
5 stronger growth because the business funds more investments with retained
6 earnings.

7 The payout ratios of the proxy group are shown in my FEA Exhibit 1.06.
8 These dividend payout ratios and earnings retention ratios then can be used
9 to develop a sustainable long-term earnings retention growth rate. A
10 sustainable long-term earnings retention ratio will help gauge whether
11 analysts' current three- to five-year growth rate projections can be sustained
12 over an indefinite period of time.

13 The data used to estimate the long-term sustainable growth rate is
14 based on DEU's current market-to-book ratio and on *Value Line's* three- to
15 five-year projections of earnings, dividends, earned returns on book equity,
16 and stock issuances.

17 As shown in FEA Exhibit 1.07, the average sustainable growth rate for
18 the proxy group using this internal growth rate model is 7.99%.

1 **Q WHAT IS THE DCF ESTIMATE USING THESE SUSTAINABLE LONG-**
2 **TERM GROWTH RATES?**

3 A A DCF estimate based on these sustainable growth rates is developed in FEA
4 Exhibit 1.08. As shown there, and using the same formula in Equation 2
5 above, a sustainable growth DCF analysis produces proxy group average and
6 median DCF results for the 13-week period of 10.77% and 10.27%,
7 respectively.

8 I am placing minimal emphasis on the results of this sustainable growth
9 DCF analysis because a significant amount of the sustainable growth is
10 produced by expected sales of additional shares over the next three to five
11 years. As shown on my FEA Exhibit 1.07, the internal growth by reinvesting
12 retained earnings is about 4.99%. However, after reflecting sales of additional
13 shares, the sustainable growth rates are altered by approximately 220 basis
14 points, or 2.2%. While this growth rate may be achieved over the relatively
15 short run, this significant growth addition to sustain the internal growth (4.99%)
16 caused by sales of additional shares is not sustainable.

17 **III.D. Multi-Stage Growth DCF Model**

18 **Q HAVE YOU CONDUCTED ANY OTHER DCF STUDIES?**

19 A Yes. My first constant growth DCF is based on consensus analysts' growth
20 rate projections so it is a reasonable reflection of rational investment
21 expectations over the next three to five years. The limitation on this constant

1 growth DCF model is that it cannot reflect a rational expectation that a period
2 of high or low short-term growth can be followed by a change in growth to a
3 rate that better reflects long-term sustainable growth. Hence, I performed a
4 multi-stage growth DCF analysis to reflect this outlook of changing growth
5 expectations.

6 **Q WHY DO YOU BELIEVE GROWTH RATES CAN CHANGE OVER TIME?**

7 A Analyst-projected growth rates over the next three to five years will change as
8 utility earnings growth outlooks change. Utility companies go through cycles in
9 making investments in their systems. When utility companies are making
10 large investments, their rate base grows rapidly, which in turn accelerates
11 earnings growth. Once a major construction cycle is completed or levels off,
12 growth in the utility rate base slows and its earnings growth slows from an
13 abnormally high three- to five-year rate to a lower sustainable growth rate.

14 As major construction cycles extend over longer periods of time, even
15 with an accelerated construction program, the growth rate of the utility will slow
16 simply because rate base growth will slow and the utility has limited human
17 and capital resources available to expand its construction program. Therefore,
18 the three- to five-year growth rate projection should be used as a long-term
19 sustainable growth rate, but not without making a reasonable informed
20 judgment to determine whether it considers the current market environment,
21 the industry, and whether the three- to five-year growth outlook is sustainable.

1 **Q PLEASE DESCRIBE YOUR MULTI-STAGE GROWTH DCF MODEL.**

2 A The multi-stage growth DCF model reflects the possibility of non-constant
3 growth for a company over time. The multi-stage growth DCF model reflects
4 three growth periods: (1) a short-term growth period consisting of the first five
5 years; (2) a transition period, consisting of the next five years (6 through 10);
6 and (3) a long-term growth period starting in year 11 through perpetuity.

7 For the short-term growth period, I relied on the consensus analysts'
8 growth projections described above in relationship to my constant growth DCF
9 model. For the transition period, the growth rates were reduced or increased
10 by an equal factor reflecting the difference between the analysts' growth rates
11 and the long-term sustainable growth rate. For the long-term growth period, I
12 assumed each company's growth would converge to the maximum
13 sustainable long-term growth rate.

14 **Q WHY IS THE GDP GROWTH PROJECTION A REASONABLE PROXY FOR**
15 **THE MAXIMUM SUSTAINABLE LONG-TERM GROWTH RATE?**

16 A Utilities cannot indefinitely sustain a growth rate that exceeds the growth rate
17 of the economy in which they sell services. Utilities' earnings/dividend growth
18 is created by increased utility investment or rate base. Such investment, in
19 turn, is driven by service area economic growth and demand for utility service.
20 In other words, utilities invest in plant to meet sales demand growth. Sales
21 growth, in turn, is tied to economic growth in their service areas.

1 The U.S. Department of Energy, Energy Information Administration
2 ("EIA") has observed utility sales growth tracks U.S. GDP growth, albeit at a
3 lower level, as shown in FEA Exhibit 1.09. Utility sales growth has lagged
4 behind GDP growth for more than a decade. As a result, nominal GDP growth
5 is a very conservative proxy for utility sales growth, rate base growth, and
6 earnings growth. Therefore, the U.S. GDP nominal growth rate is a
7 conservative proxy for the highest sustainable long-term growth rate of a
8 utility.

9 **Q IS THERE RESEARCH THAT SUPPORTS YOUR POSITION THAT, OVER**
10 **THE LONG TERM, A COMPANY'S EARNINGS AND DIVIDENDS CANNOT**
11 **GROW AT A RATE GREATER THAN THE GROWTH OF THE U.S. GDP?**

12 A Yes. This concept is supported in published analyst literature and academic
13 work. Specifically, in a textbook titled "Fundamentals of Financial
14 Management," published by Eugene Brigham and Joel F. Houston, the
15 authors state as follows:

16 The constant growth model is most appropriate for mature
17 companies with a stable history of growth and stable future
18 expectations. Expected growth rates vary somewhat among
19 companies, but dividends for mature firms are often expected to
20 grow in the future at about the same rate as nominal gross
21 domestic product (real GDP plus inflation).¹⁴

¹⁴"*Fundamentals of Financial Management*," Eugene F. Brigham and Joel F. Houston, Eleventh Edition 2007, Thomson South-Western, a Division of Thomson Corporation at 298, (emphasis added).

1 The use of the economic growth rate is also supported by investment
2 practitioners as outlined as follows:

3 **Estimating Growth Rates**

4 One of the advantages of a three-stage discounted cash flow
5 model is that it fits with life cycle theories in regards to company
6 growth. In these theories, companies are assumed to have a life
7 cycle with varying growth characteristics. Typically, the potential
8 for extraordinary growth in the near term eases over time and
9 eventually growth slows to a more stable level.

10 * * *

11 Another approach to estimating long-term growth rates is to
12 focus on estimating the overall economic growth rate. Again,
13 this is the approach used in the *Ibbotson Cost of Capital*
14 *Yearbook*. To obtain the economic growth rate, a forecast is
15 made of the growth rate's component parts. Expected growth
16 can be broken into two main parts: expected inflation and
17 expected real growth. By analyzing these components
18 separately, it is easier to see the factors that drive growth.¹⁵

19 **Q ARE THERE ANY ACTUAL INVESTMENT RESULTS THAT SUPPORT THE**
20 **NOTION THAT THE GROWTH ON STOCK INVESTMENTS WILL NOT**
21 **EXCEED THE NOMINAL GROWTH OF THE U.S. GDP?**

22 **A** Yes. This is evident by a comparison of the compound annual growth of the
23 U.S. GDP to the geometric growth of the U.S. stock market. Morningstar
24 measures the historical geometric growth of the U.S. stock market over the
25 period 1926-2018 to be approximately 5.8%.¹⁶ During this same time period,

¹⁵*Morningstar, Inc., Ibbotson SBBI 2013 Valuation Yearbook* at 51 and 52.

¹⁶*Duff & Phelps, 2019 SBBI Yearbook* at 6-17.

1 the U.S. nominal compound annual growth of the U.S. GDP was
2 approximately 6.1%.¹⁷

3 As such, over the past 90 years, the geometric average growth of the
4 U.S. nominal GDP has been higher but comparable to the geometric average
5 growth of the U.S. stock market capital appreciation. This historical
6 relationship indicates that the U.S. GDP growth outlook is a conservative
7 estimate of the long-term sustainable growth of U.S. stock investments.

8 **Q WHAT IS THE GEOMETRIC AVERAGE AND WHY IS IT APPROPRIATE TO**
9 **USE THIS MEASURE TO COMPARE GDP GROWTH TO CAPITAL**
10 **APPRECIATION IN THE STOCK MARKET?**

11 A The terms geometric average growth rate and compound annual growth rate
12 are used interchangeably. The geometric annual growth rate is the calculated
13 growth rate, or return, that measures the magnitude of growth from start to
14 finish. The geometric average is best, and most often, used as a
15 measurement of performance or growth over a long period of time.¹⁸ Because
16 I am comparing achieved growth in the stock market to achieved growth in
17 U.S. GDP over a long period of time, the geometric average growth rate is
18 most appropriate.

¹⁷U.S. Bureau of Economic Analysis, April 26, 2019.

¹⁸*New Regulatory Finance*, Roger Morin, PhD, at 133-134.

1 Q HOW DID YOU DETERMINE A LONG-TERM GROWTH RATE THAT
2 REFLECTS THE CURRENT CONSENSUS MARKET PARTICIPANT
3 OUTLOOK?

4 A I relied on the economic consensus of long-term GDP growth projections.
5 *Blue Chip Financial Forecasts* publishes the consensus for GDP growth
6 projections twice a year. These GDP growth outlooks are the best available
7 measure of the market's assessment of long-term GDP growth. These analyst
8 projections reflect all current outlooks for GDP and are likely the most
9 influential on investors' expectations of future growth outlooks. The
10 consensus projections published GDP growth rate outlook is 4.10% over the
11 next 10 years.¹⁹

12 Therefore, I propose to use the consensus for projected five- and
13 ten-year average GDP growth rates of 4.1%, as published by *Blue Chip*
14 *Financial Forecasts*, as an estimate of long-term sustainable growth. *Blue*
15 *Chip Financial Forecasts* projections provide real GDP growth projections of
16 approximately 2.0% and GDP inflation of 2.1%²⁰ over the five-year and
17 ten-year projection periods, of 4.1% on the nominal projections. These GDP
18 growth forecasts represent the most likely views of market participants
19 because they are based on published economic consensus projections.

¹⁹*Blue Chip Financial Forecasts*, October 1, 2019, at 14.

²⁰*Id.*

1 Q DO YOU CONSIDER OTHER SOURCES OF PROJECTED LONG-TERM
2 GDP GROWTH?

3 A Yes, and these alternative sources corroborate the consensus analysts'
4 projections I relied on. For example, consider the analysts' projections shown
5 in Table 7 below.

<u>Source</u>	<u>Term</u>	<u>Real GDP</u>	<u>Inflation</u>	<u>Nominal GDP</u>
Blue Chip Financial Forecasts	5-10 Yrs	2.0%	2.1%	4.1%
EIA - Annual Energy Outlook	30 Yrs	1.8%	2.3%	4.2%
Congressional Budget Office	9 Yrs	1.9%	2.1%	3.9%
Moody's Analytics	28 Yrs	2.0%	1.9%	3.9%
Social Security Administration	50 Yrs			4.3%
The Economist Intelligence Unit	25 Yrs	1.9%	1.8%	3.8%

6 The EIA in its *Annual Energy Outlook* projects real GDP out until 2050.
7 In its 2019 Annual Report, the EIA projects real GDP through 2050 to be 1.8%
8 and a long-term GDP price inflation projection of 2.3%. The EIA data supports
9 a long-term nominal GDP growth outlook of 4.2%.²¹

10 Also, the Congressional Budget Office ("CBO") makes long-term
11 economic projections. The CBO is projecting real GDP growth to be 1.9%
12 during the next nine years, with a GDP price inflation outlook of 2.1%. The
13 CBO's nine-year outlook for nominal GDP based on this projection is 3.9%.²²

²¹DOE/EIA Annual Energy Outlook 2018 With Projections to 2050, February 2019, Table Macroeconomic Indicators.

²²CBO: *The Budget and Economic Outlook: 2019-2029*, January 2019.

1 Moody's Analytics also makes long-term economic projections. In its
2 recent 25-year outlook to 2048, Moody's Analytics is projecting real GDP
3 growth of 2.0% with GDP inflation of 1.9%.²³ Based on these projections,
4 Moody's Analytics is projecting nominal GDP growth of 3.9% over the next 25
5 years.

6 The Social Security Administration ("SSA") makes long-term economic
7 projections out to 2095. The SSA's nominal GDP projection, under its
8 "intermediate cost" scenario of approximately 50 years, is 4.3%.²⁴

9 The Economist Intelligence Unit, a division of The Economist and a
10 third-party data provider to Market Intelligence, makes a long-term economic
11 projection out to 2050. The Economist Intelligence Unit is projecting real GDP
12 growth of 1.9% with an inflation rate of 1.8% out to 2050. The real GDP
13 growth projection is in line with the consensus. The long-term nominal GDP
14 projection based on these outlooks is approximately 3.8%.²⁵

15 The real GDP and nominal GDP growth projections made by these
16 independent sources support the use of the consensus for five-year and ten-
17 year projected GDP growth outlooks as a reasonable estimate of market
18 participants' long-term GDP growth.

²³www.economy.com, *Moody's Analytics Forecast*, April 8, 2019.

²⁴www.ssa.gov, "2019 OASDI Trustees Report," Table VI.G4.

²⁵S&P *Global Market Intelligence, Economist Intelligence Unit*, downloaded on February 14, 2019.

1 **Q WHAT STOCK PRICE, DIVIDEND, AND GROWTH RATES DID YOU USE IN**
2 **YOUR MULTI-STAGE GROWTH DCF ANALYSIS?**

3 A I relied on the same 13-week average stock prices and the most recent
4 quarterly dividend payment data discussed above. For stage one growth, I
5 used the consensus analysts' growth rate projections discussed above in my
6 constant growth DCF model. The first stage covers the first five years,
7 consistent with the time horizon of the securities analysts' growth rate
8 projections. The second stage, or transition stage, begins in year 6 and
9 extends through year 10. The second stage growth transitions the growth rate
10 from the first stage to the third stage using a straight linear trend. For the third
11 stage, or long-term sustainable growth stage, starting in year 11, I used a
12 4.10% long-term sustainable growth rate based on the consensus economists'
13 long-term projected nominal GDP growth rate.

14 **Q WHAT ARE THE RESULTS OF YOUR MULTI-STAGE GROWTH DCF**
15 **MODEL?**

16 A As shown in FEA Exhibit 1.10, the average and median DCF returns on equity
17 for my proxy group using the 13-week average stock price are 7.07% and
18 7.09%, respectively.

19 **Q PLEASE SUMMARIZE THE RESULTS FROM YOUR DCF ANALYSES.**

20 A The results from my DCF analyses are summarized in Table 8 below:

<u>Description</u>	<u>Proxy Group</u>	
	<u>Average</u>	<u>Median</u>
Constant Growth DCF Model (Analysts' Growth)	8.47%	8.28%
Constant Growth DCF Model (Sustainable Growth)	10.77%	10.27%
Multi-Stage Growth DCF Model	7.07%	7.09%

1 Overall, I believe my DCF models support a return in the range of
2 approximately 8.3% to 9.6%. I conclude that my DCF studies support a return
3 on equity of 9.0%. My recommended point estimate for my DCF reflects
4 consideration of both the constant growth DCF model with analysts' growth
5 projections and also the range of constant growth using sustainable growth.
6 My recommended point estimate is primarily based on my constant growth
7 DCF estimates, but also considers the results of my other DCF models.

8
9 **III.E. Risk Premium Model**

10 **Q PLEASE DESCRIBE YOUR BOND YIELD PLUS RISK PREMIUM MODEL.**

11 A This model is based on the principle that investors require a higher return to
12 assume greater risk. Common equity investments have greater risk than
13 bonds because bonds have more security of payment in bankruptcy
14 proceedings than common equity and the coupon payments on bonds
15 represent contractual obligations. In contrast, companies are not required to
16 pay dividends or guarantee returns on common equity investments.

1 Therefore, common equity securities are considered to be riskier than bond
2 securities.

3 This risk premium model is based on two estimates of an equity risk
4 premium. First, I quantify the difference between regulatory commission-
5 authorized returns on common equity and contemporary U.S. Treasury bonds.
6 The difference between the authorized return on common equity and the
7 Treasury bond yield is the risk premium. I estimated the risk premium on an
8 annual basis for each year since January 1986 through June 2019. The
9 authorized returns on equity were based on regulatory commission-authorized
10 returns for regulated utility companies. Authorized returns are typically based
11 on expert witnesses' estimates of the investor-required return at the time of the
12 proceeding.

13 The second equity risk premium estimate is based on the difference
14 between regulatory commission-authorized returns on common equity and
15 contemporary "A" rated utility bond yields by Moody's. I selected the period
16 1986 through June 2019 because public utility stocks consistently traded at a
17 premium to book value during that period. This is illustrated in FEA Exhibit
18 1.11, which shows the market-to-book ratio since 1986 for the gas utility
19 industry was consistently above a multiple of 1.0x. Over this period, an
20 analyst can infer that authorized returns on equity were sufficient to support
21 market prices that at least exceeded book value. This is an indication that
22 commission authorized returns on common equity supported a utility's ability

1 to issue additional common stock without diluting existing shares. It further
2 demonstrates utilities were able to access equity markets without a detrimental
3 impact on current shareholders.

4 Based on this analysis, as shown in FEA Exhibit 1.12, the average
5 indicated equity risk premium over U.S. Treasury bond yields has been 5.48%.
6 Since the risk premium can vary depending upon market conditions and
7 changing investor risk perceptions, I believe using an estimated range of risk
8 premiums provides the best method to measure the current return on common
9 equity for a risk premium methodology.

10 I incorporated five-year and ten-year rolling average risk premiums over
11 the study period to gauge the variability over time of risk premiums. These
12 rolling average risk premiums mitigate the impact of anomalous market
13 conditions and skewed risk premiums over an entire business cycle. As
14 shown on my FEA Exhibit 1.12, the five-year rolling average risk premium over
15 Treasury bonds ranged from 4.17% to 6.75%, while the ten-year rolling
16 average risk premium ranged from 4.30% to 6.53%.

17 As shown on my FEA Exhibit 1.13, the average indicated equity risk
18 premium over contemporary "A" rated Moody's utility bond yields was 4.12%.
19 The five-year and ten-year rolling average risk premiums ranged from 2.80%
20 to 5.54% and 3.11% to 5.38%, respectively.

1 Q DO YOU BELIEVE THAT THE TIME PERIOD USED TO DERIVE THESE
2 EQUITY RISK PREMIUM ESTIMATES IS APPROPRIATE TO FORM
3 ACCURATE CONCLUSIONS ABOUT CONTEMPORARY MARKET
4 CONDITIONS?

5 A Yes. Contemporary market conditions could change dramatically during the
6 period that rates determined in this proceeding will be in effect. A relatively
7 long period of time where stock valuations reflect premiums to book value
8 indicates that the authorized returns on equity and the corresponding equity
9 risk premiums were supportive of investors' return expectations and provided
10 utilities access to the equity markets under reasonable terms and conditions.
11 Further, this time period is long enough to smooth abnormal market movement
12 that might distort equity risk premiums. While market conditions and risk
13 premiums do vary over time, this historical time period is a reasonable period
14 to estimate contemporary risk premiums.

15 Alternatively, some studies, such as Duff & Phelps referred to later in
16 this testimony, have recommended that use of "actual achieved investment
17 return data" in a risk premium study should be based on long historical time
18 periods. The studies find that achieved returns over short time periods may
19 not reflect investors' expected returns due to unexpected and abnormal stock
20 price performance. Short-term, abnormal actual returns would be smoothed
21 over time and the achieved actual investment returns over long time periods
22 would approximate investors' expected returns. Therefore, it is reasonable to

1 assume that averages of annual achieved returns over long time periods will
2 generally converge on the investors' expected returns.

3 My risk premium study is based on data that inherently relied on
4 investor expectations, not actual investment returns, and, thus, need not
5 encompass a very long historical time period.

6 **Q WHAT DOES CURRENT OBSERVABLE MARKET DATA SUGGEST**
7 **ABOUT INVESTOR PERCEPTIONS OF UTILITY INVESTMENTS?**

8 A The equity risk premium should reflect the relative market perception of risk in
9 the utility industry today. I have gauged investor perceptions in utility risk
10 today in FEA Exhibit 1.14, where I show the yield spread between utility bonds
11 and Treasury bonds over the last 39 years. As shown in this exhibit, the
12 average utility bond yield spreads over Treasury bonds for "A" and "Baa" rated
13 utility bonds for this historical period are 1.49% and 1.93%, respectively. The
14 utility bond yield spreads over Treasury bonds for "A" and "Baa" rated utilities
15 for 2018 were 1.14% and 1.56%, respectively. Similarly, the "A" and "Baa"
16 utility spreads through June 2019 are 1.21% and 1.71%, respectively. Both
17 the current average "A" rated and "Baa" rated utility bond yield spreads over
18 Treasury bond yields are lower than the respective 39-year average spreads.

19 A current 13-week average "A" rated utility bond yield of 3.46% when
20 compared to the current Treasury bond yield of 2.28%, as shown in FEA
21 Exhibit 1.15, implies a yield spread of 118 basis points. This current utility

1 bond yield spread is lower than the 39-year average spread for “A” rated utility
2 bonds of 1.49%. The current spread for the “Baa” rated utility bond yield of
3 1.54% is also lower than the 39-year average spread of 1.93%.

4 These utility bond yield spreads are evidence that the market perceives
5 utility investment risk as relatively low compared to historical valuations and
6 corporate security valuations. This relative valuation and pricing demonstrate
7 that utilities continue to have strong access to capital and at low costs in the
8 current market.

9 **Q IS THERE MARKET EVIDENCE TO HELP GAUGE MARKET RISK**
10 **PREMIUMS BASED ON OBSERVABLE MARKET EVIDENCE?**

11 A Yes. Market data does illustrate how the market is pricing investment risk, and
12 gauging the current demands for returns based on securities of varying levels
13 of investment risk. This market evidence includes bond yield spreads for
14 different bond return ratings as implied by the yield spreads for Treasury,
15 corporate and utility bonds. These spreads provide an indication of the
16 market’s return requirement for securities of different levels of investment risk
17 and required risk premiums.

18 Table 9 below shows the utility and corporate bond spreads relative to
19 Treasury bond yields.

TABLE 9

Comparison of Yield Spreads Over Treasury Bonds

<u>Description</u>	<u>Utility</u>		<u>Corporate</u>	
	<u>A</u>	<u>Baa</u>	<u>Aaa</u>	<u>Baa</u>
Average Historical Spread	1.49%	1.93%	0.84%	1.93%
2017 Spread	1.10%	1.48%	0.85%	1.55%
2018 Spread	1.14%	1.56%	0.82%	1.69%
2019 Spread	1.21%	1.71%	0.82%	1.89%

Source: FEA Exhibit 1.14.

1 As shown above in Table 9, the average historical bond yield spread
 2 over the period 1980-June 2019 shows a fairly divergent spread for utilities
 3 relative to corporate bonds. Specifically, the average historical utility bond
 4 yield spread is greater than the current yield spread based on 2017-2019 data.
 5 This is an indication that the market is placing a higher value on utility
 6 securities currently, and indicating a preference for lower-risk investment
 7 securities. Specifically, the 39-year average yield spread for A-rated utilities of
 8 1.49% is greater than the average spread through June 2019 of 1.21%.
 9 Again, this indicates the market is paying a premium for a lower-risk utility
 10 security now compared to the past. This phenomenon is also evident in
 11 spreads for general corporate securities. An Aaa-rated corporate bond
 12 39-year average spread is 0.84%, which is comparable to the average spread

1 in 2017 and slightly higher than the 2018 and 2019 spreads of 0.82%. For
2 higher-risk bonds, utility Baa and corporate bonds reflect reasonably
3 consistent yield spreads, suggesting that these higher-risk utility and corporate
4 bond securities are not receiving the same premium valuation as are the
5 lower-risk A-rated and Aaa-rated utility and corporate bond securities.

6 A relatively low yield for utility and corporate bonds is also reflected in
7 outlooks of real returns on these bond yields compared to the past. Over the
8 period 1926-2018, long-term corporate bond yields have earned around 5.9%,
9 compared to inflation of around 3.0%.²⁶ This implies a historical real return on
10 long-term corporate bonds of around 2.9%. In 2017-2019, long-term corporate
11 bonds rated Aaa averaged around 3.80%. At that time, future inflation
12 outlooks over the long term were expected to be around 2.0% which implies a
13 current real return outlook on long-term corporate bonds of only 1.80%.
14 Again, this indicates that bond yields are being priced at a premium by the
15 market participants.

16 This information supports the finding that higher-risk securities are
17 being valued to produce higher-risk spreads relative to low-risk securities in
18 the current marketplace. As such, I believe this information supports using an
19 above-average risk premium in the current marketplace. For these reasons, I
20 believe an above-average risk premium is supported by observable market
21 evidence in this proceeding.

²⁶*Duff & Phelps 2019 SBBi Yearbook at 6-17.*

1 **Q WHAT IS YOUR RECOMMENDED RETURN FOR DEU BASED ON YOUR**
2 **RISK PREMIUM STUDY?**

3 A I am recommending that more weight be given to the high-end risk premium
4 estimates than the low-end. Hence, I propose to provide 75% weight to my
5 high-end risk premium estimates and 25% to the low-end. Applying these
6 weights, the risk premium for Treasury bond yields would be approximately
7 6.1%,²⁷ which is considerably higher than the 33-year average risk premium of
8 5.48%. A Treasury bond risk premium of 6.1% and projected Treasury bond
9 yield of 2.5% produce a cost of equity estimate of 8.60%.

10 Similarly, applying these weights to the utility risk premium indicates a
11 risk premium of 4.90%.²⁸ This risk premium is above the 33-year historical
12 average risk premium of 4.12%. Adding this risk premium to the current
13 observable Baa utility bond yield of 3.82% produces an estimated return on
14 equity of approximately 8.70%.

15 Based on this methodology, my Treasury bond risk premium and my
16 utility bond risk premium indicate a return in the range of 8.60% to 8.70%. I
17 conclude that my risk premium studies support a return on equity of 8.70%.

²⁷ $(4.17\% * 25\%) + (6.75\% * 75\%) = 6.1\%$.

²⁸ $(2.80\% * 25\%) + (5.54\% * 75\%) = 4.9\%$.

1 **III.F. Capital Asset Pricing Model (“CAPM”)**

2 **Q PLEASE DESCRIBE THE CAPM.**

3 A The CAPM method of analysis is based upon the theory that the market-
4 required rate of return for a security is equal to the risk-free rate, plus a risk
5 premium associated with the specific security. This relationship between risk
6 and return can be expressed mathematically as follows:

7
$$R_i = R_f + B_i \times (R_m - R_f) \text{ where:}$$

8 $R_i =$ Required return for stock i

9 $R_f =$ Risk-free rate

10 $R_m =$ Expected return for the market portfolio

11 $B_i =$ Beta - Measure of the risk for stock

12 The stock-specific risk term in the above equation is beta. Beta
13 represents the investment risk that cannot be diversified away when the
14 security is held in a diversified portfolio. When stocks are held in a diversified
15 portfolio, stock-specific risks can be eliminated by balancing the portfolio with
16 securities that react in the opposite direction to firm-specific risk factors (e.g.,
17 business cycle, competition, product mix, and production limitations).

18 The risks that cannot be eliminated when held in a diversified portfolio
19 are non-diversifiable risks. Non-diversifiable risks are related to the market in
20 general and referred to as systematic risks. Risks that can be eliminated by
21 diversification are non-systematic risks. In a broad sense, systematic risks are
22 market risks and non-systematic risks are business risks. The CAPM theory

1 suggests the market will not compensate investors for assuming risks that can
2 be diversified away. Therefore, the only risk investors will be compensated for
3 are systematic, or non-diversifiable, risks. The beta is a measure of the
4 systematic, or non-diversifiable risks.

5 **Q PLEASE DESCRIBE THE INPUTS TO YOUR CAPM.**

6 A The CAPM requires an estimate of the market risk-free rate, DEU's beta, and
7 the market risk premium.

8 **Q WHAT DID YOU USE AS AN ESTIMATE OF THE MARKET RISK-FREE**
9 **RATE?**

10 A As previously noted, *Blue Chip Financial Forecasts'* projected 30-year
11 Treasury bond yield is 2.5%.²⁹ The current 30-year Treasury bond yield is
12 2.28%, as shown in FEA Exhibit 1.15. I used *Blue Chip Financial Forecasts'*
13 projected 30-year Treasury bond yield of 2.5% for my CAPM analysis.

14 **Q WHY DID YOU USE LONG-TERM TREASURY BOND YIELDS AS AN**
15 **ESTIMATE OF THE RISK-FREE RATE?**

16 A Treasury securities are backed by the full faith and credit of the United States
17 government so long-term Treasury bonds are considered to have negligible
18 credit risk. Also, long-term Treasury bonds have an investment horizon similar

²⁹*Blue Chip Financial Forecasts*, October 1, 2019 at 2.

1 to that of common stock. As a result, investor-anticipated long-run inflation
2 expectations are reflected in both common stock required returns and long-
3 term bond yields. Therefore, the nominal risk-free rate (or expected inflation
4 rate and real risk-free rate) included in a long-term bond yield is a reasonable
5 estimate of the nominal risk-free rate included in common stock returns.

6 Treasury bond yields, however, do include risk premiums related to
7 unanticipated future inflation and interest rates. As such, in this regard, a
8 Treasury bond yield is not a perfect risk-free rate, but I believe it to be the best
9 market proxy available. Risk premiums related to unanticipated inflation and
10 interest rates reflect systematic market risks. Consequently, for companies
11 with betas less than 1.0, using the Treasury bond yield as a proxy for the risk-
12 free rate in the CAPM analysis can produce an overstated estimate of the
13 CAPM return.

14 **Q WHAT BETA DID YOU USE IN YOUR ANALYSIS?**

15 **A** As shown on my FEA Exhibit 1.16, the average beta of my proxy group is
16 0.67. This means that my proxy group is less risky than the market as a
17 whole. On page 2 of FEA Exhibit 1.16, I review the long-term trend of *Value*
18 *Line* betas reported for the proxy groups companies. As shown on that page,
19 the proxy group's betas generally range between 0.67 and 0.80, or average of
20 about 0.73. Thus, the current beta of around 0.67 represents a recent
21 downward trend in utility stock betas, which I believe is mostly attributable to

1 the market's continued premium paid for low-risk securities. As the market
2 declined over the last several months, utility stock prices remained quite
3 robust. This suggests the market continues to recognize utility investments as
4 safe haven investments and pays premiums for these securities during times
5 of economic uncertainty. However, this increased demand for low-risk
6 securities has artificially lowered the beta estimate for utility stocks because
7 the demand for these securities has increased relative to general market
8 demands. Therefore, I do not believe this recent market flight to quality
9 accurately supports a beta estimate for the utility below the historical average
10 of around 0.73. For this reason, I will use the long-term average utility beta in
11 my CAPM analysis of approximately 0.73.

12 **Q HOW DID YOU DERIVE YOUR MARKET RISK PREMIUM ESTIMATE?**

13 A I derived two market risk premium estimates: a forward-looking estimate and
14 one based on a long-term historical average.

15 The forward-looking estimate was derived by estimating the expected
16 return on the market (as represented by the S&P 500) and subtracting the risk-
17 free rate from this estimate. I estimated the expected return on the S&P 500
18 by adding an expected inflation rate to the long-term historical arithmetic
19 average real return on the market. The real return on the market represents
20 the achieved return above the rate of inflation.

1 Duff & Phelps' *2019 SBBI Yearbook* estimates the historical arithmetic
2 average real market return over the period 1926 to 2018 to be 8.8%.³⁰ A
3 current consensus for projected inflation, as measured by the Consumer Price
4 Index, is 2.0%.³¹ Using these estimates, the expected market return is
5 10.98%.³² The market risk premium then is the difference between the
6 10.98% expected market return and my 2.5% risk-free rate estimate, or 8.5%.

7 My historical estimate of the market risk premium was also calculated
8 by using data provided by Duff & Phelps in its *2019 SBBI Yearbook*. Over the
9 period 1926 through 2018, the Duff & Phelps study estimated that the
10 arithmetic average of the achieved total return on the S&P 500 was 11.9%³³
11 and the total return on long-term Treasury bonds was 5.9%.³⁴ The indicated
12 market risk premium is 6.0% (11.9% - 5.9% = 6.0%).

13 The long-term government bond yield of 5.9% occurred during a period
14 of inflation of approximately 3.0%, thus implying a real return on long-term
15 government bonds of 2.9%.

16 **Q HOW DID DUFF & PHELPS ESTIMATE MARKET RISK PREMIUMS?**

17 A Duff & Phelps makes several estimates of a forward-looking market risk
18 premium based on actual achieved data from the historical period of 1926
19 through 2018 as well as normalized data. Using this data, Duff & Phelps

³⁰Duff & Phelps, *2019 SBBI Yearbook* at 6-18.

³¹*Blue Chip Financial Forecasts*, October 1, 2019 at 2.

³²{ (1 + 0.088) * (1 + 0.020) - 1 } * 100.

³³Duff & Phelps, *2019 Yearbook* at 6-17.

³⁴*Id.*

1 estimates a market risk premium derived from the total return on the securities
2 that comprise the S&P 500, less the income return on Treasury bonds. The
3 total return includes capital appreciation, dividend or coupon reinvestment
4 returns, and annual yields received from coupons and/or dividend payments.
5 The income return, in contrast, only reflects the income return received from
6 dividend payments or coupon yields.

7 Duff & Phelps' range is based on several methodologies. First, Duff &
8 Phelps estimates a market risk premium of 6.91% based on the difference
9 between the total market return on common stocks (S&P 500) less the income
10 return on 20-year Treasury bond investments over the 1926-2018 period.³⁵

11 Second, Duff & Phelps used the Ibbotson & Chen supply-side model
12 which produced a market risk premium estimate of 6.14%.³⁶

13 Duff & Phelps explains that the historical market risk premium based on
14 the S&P 500 was influenced by an abnormal expansion to the P/E ratios
15 relative to earnings and dividend growth during the period, primarily over the
16 last 30 years. Duff & Phelps believes this abnormal P/E expansion is not
17 sustainable. In order to control for the volatility of extraordinary events and
18 their impacts on P/E ratios, Duff & Phelps takes into consideration the
19 three-year average P/E ratio as the current P/E ratio.³⁷ Therefore, Duff &

³⁵ *Duff & Phelps 2019 Valuation Handbook* at 3-44.

³⁶ *Id.* at 3-45 to 3-46.

³⁷ *Id.* at 3-43.

1 Phelps adjusted this market risk premium estimate to normalize the growth in
2 the P/E ratio to be more in line with the growth in dividends and earnings.

3 Finally, Duff & Phelps develops its own recommended equity, or market
4 risk premium by employing an analysis that takes into consideration a wide
5 range of economic information, multiple risk premium estimation
6 methodologies, and the current state of the economy by observing measures
7 such as the level of stock indices and corporate spreads as indicators of
8 perceived risk. Based on this methodology, and utilizing a “normalized” risk-
9 free rate of 3.5%, Duff & Phelps concludes the current expected, or forward-
10 looking, market risk premium is 5.5%, implying an expected return on the
11 market of 9.0%.³⁸

12 Importantly, Duff & Phelps’ market risk premiums are measured over a
13 20-year Treasury bond. Because I am relying on a projected 30-year Treasury
14 bond yield, the results of my CAPM analysis should be considered
15 conservative estimates for the cost of equity.

16 **Q HOW DOES YOUR ESTIMATED MARKET RISK PREMIUM RANGE**
17 **COMPARE TO THAT ESTIMATED BY DUFF & PHELPS?**

18 A The Duff & Phelps analyses indicate a market risk premium falls somewhere in
19 the range of 5.5% to 6.9%. My market risk premium falls in the range of 6.0%

³⁸*Id.* at 3-1.

1 to 8.5%. My average market risk premium of approximately 7.25% is slightly
2 above the high end of the Duff & Phelps range.

3 **Q WHAT ARE THE RESULTS OF YOUR CAPM ANALYSIS?**

4 A As shown in FEA Exhibit 1.17, based on my low market risk premium of 6.0%
5 and my high market risk premium of 8.5%, a risk-free rate of 2.5%, and a
6 historical average utility beta of 0.73, my CAPM analysis produces a return in
7 the range of 6.90% to 8.73%. Based on my assessment of risk premiums in
8 the market, as discussed above, I will place primary reliance on my high-end
9 CAPM return estimates. This produces a recommended CAPM return
10 estimate of 8.7%. This high-end CAPM return estimate is based on a
11 projected Treasury bond yield of 2.5% as a risk-free rate, a historical utility
12 beta of 0.73, and a projected market risk premium of 8.5%.

13 **III.G. Return on Equity Summary**

14 **Q BASED ON THE RESULTS OF YOUR RETURN ON COMMON EQUITY**
15 **ANALYSES DESCRIBED ABOVE, WHAT RETURN ON COMMON EQUITY**
16 **DO YOU RECOMMEND FOR DEU?**

17 A Based on my analyses, I estimate DEU's current market cost of equity to be
18 9.0%.

<u>Description</u>	<u>Results</u>
DCF	9.00%
Risk Premium	8.70%
CAPM	8.70%

1 My return on equity estimates reflect observable market evidence, the
2 impact of Federal Reserve policies on current and expected long-term capital
3 market costs, an assessment of the current risk premium built into current
4 market securities, and a general assessment of the current investment risk
5 characteristics of the regulated utility industry and the market's demand for
6 utility securities. I emphasize that my recommended point estimate of 9.0% is
7 supported by my DCF, and shown to be reasonable by my CAPM estimate
8 and risk premium studies.

9 **III.H. Financial Integrity**

10 **Q WILL YOUR RECOMMENDED OVERALL RATE OF RETURN SUPPORT**
11 **AN INVESTMENT GRADE BOND RATING FOR DEU?**

12 **A Yes.** I have reached this conclusion by comparing the key credit rating
13 financial ratios for DEU at my proposed return on equity to S&P's benchmark
14 financial ratios using S&P's new credit metric ranges.

1 **Q PLEASE DESCRIBE THE MOST RECENT S&P FINANCIAL RATIO CREDIT**
2 **METRIC METHODOLOGY.**

3 A S&P publishes a matrix of financial ratios corresponding to its assessment of
4 the business risk of utility companies and related bond ratings. On May 27,
5 2009, S&P expanded its matrix criteria by including additional business and
6 financial risk categories.³⁹

7 Based on S&P's most recent credit matrix, the business risk profile
8 categories are "Excellent," "Strong," "Satisfactory," "Fair," "Weak," and
9 "Vulnerable." Most utilities have a business risk profile of "Excellent" or
10 "Strong."

11 The financial risk profile categories are "Minimal," "Modest,"
12 "Intermediate," "Significant," "Aggressive," and "Highly Leveraged." Most of
13 the utilities have a financial risk profile of "Aggressive." DEU has an
14 "Excellent" business risk profile and a "Significant" financial risk profile.

15 **Q PLEASE DESCRIBE S&P'S USE OF THE FINANCIAL BENCHMARK**
16 **RATIOS IN ITS CREDIT RATING REVIEW.**

17 A S&P evaluates a utility's credit rating based on an assessment of its financial
18 and business risks. A combination of financial and business risks equates to
19 the overall assessment of DEU's total credit risk exposure. On November 19,
20 2013, S&P updated its methodology. In its update, S&P published a matrix of

³⁹S&P updated its 2008 credit metric guidelines in 2009, and incorporated utility metric benchmarks with the general corporate rating metrics. *Standard & Poor's RatingsDirect*. "Criteria Methodology: Business Risk/Financial Risk Matrix Expanded," May 27, 2009.

1 financial ratios that defines the level of financial risk as a function of the level
2 of business risk.

3 S&P publishes ranges for primary financial ratios that it uses as
4 guidance in its credit review for utility companies. The two core financial ratio
5 benchmarks it relies on in its credit rating process include: (1) Debt to Earnings
6 Before Interest, Taxes, Depreciation and Amortization (“EBITDA”); and
7 (2) Funds From Operations (“FFO”) to Total Debt.⁴⁰

8 **Q HOW DID YOU APPLY S&P’S FINANCIAL RATIOS TO TEST THE**
9 **REASONABLENESS OF YOUR RATE OF RETURN**
10 **RECOMMENDATIONS?**

11 A I calculated each of S&P’s financial ratios based on DEU’s cost of service for
12 its retail operations in its Utah service territory. While S&P would normally
13 look at total consolidated DEU financial ratios in its credit review process, my
14 investigation in this proceeding is not the same as S&P’s. I am attempting to
15 judge the reasonableness of my proposed cost of capital for rate-setting in
16 DEU’s retail regulated utility operations. Hence, I am attempting to determine
17 whether my proposed rate of return will in turn support cash flow metrics,
18 balance sheet strength, and earnings that will support an investment grade
19 bond rating and DEU’s financial integrity.

⁴⁰*Standard & Poor’s RatingsDirect*. “Criteria: Corporate Methodology,” November 19, 2013.

1 **Q PLEASE DESCRIBE THE RESULTS OF THIS CREDIT METRIC ANALYSIS**
2 **AS IT RELATES TO DEU’S RETAIL OPERATIONS.**

3 A The S&P financial metric calculations for DEU at a 9.0% return are developed
4 on FEA Exhibit 1.18, page 1. The credit metrics produced below, with DEU’s
5 financial risk profile from S&P of “Significant” and business risk profile of
6 “Excellent,” will be used to assess the strength of the credit metrics based on
7 DEU’s retail operations in the state of Utah.

8 I estimated DEU’s total adjusted debt leverage using my proposed
9 ratemaking capital structure weights applied to its jurisdictional rate base in
10 this proceeding. I added to these debt and equity balances an amount of
11 short-term debt balance equal to the amount of \$90.57 million construction
12 work in progress the Company removed from rate base in this proceeding on
13 Mr. Stephenson’s DEU Exhibit 3.02. With this adjustment, DEU’s adjusted
14 debt ratio increases from its ratemaking debt ratio of 48%, up to 50% based on
15 total capitalization (that is, both common equity, long-term debt, and short-
16 term debt).

17 Based on an equity return of 9.0%, DEU will be provided an opportunity
18 to produce a Debt to EBITDA ratio of 4.1x. This is within S&P’s guideline
19 range of 4.0x to 5.0x⁴¹ within the “Aggressive” financial risk category, but will
20 support DEU’s BBB+ credit rating based on S&P’s reported business risk

⁴¹*Id.*

1 profile score of “Excellent” for DEU, which indicates a rating between BBB and
2 A-.

3 DEU’s retail operations FFO to total debt coverage at a 9.0% equity
4 return is 17%, which is within S&P’s “Significant” metric guideline range of
5 13% to 23%. This metric would support DEU’s BBB+ bond rating based on its
6 “Excellent” business rating.

7 **Q DOES THIS FINANCIAL INTEGRITY ASSESSMENT SUPPORT YOUR**
8 **RECOMMENDED OVERALL RATE OF RETURN FOR DEU?**

9 A Yes. As noted above, I believe my return on equity represents fair
10 compensation in today’s very low capital market costs, and as outlined above,
11 my overall rate of return will provide DEU an opportunity to earn credit metrics
12 that will support its strong BBB+ bond rating.

13 **IV. RESPONSE TO DEU WITNESS ROBERT HEVERT**

14 **Q WHAT RETURN ON COMMON EQUITY IS DEU PROPOSING FOR THIS**
15 **PROCEEDING?**

16 A Mr. Hevert is recommending a return on equity of 10.50% based on his
17 market-based model results that fall in the range of 9.90% to 10.75%. His
18 recommended return on equity is based on: (1) a constant growth DCF
19 analysis, (2) a traditional CAPM, (3) the empirical CAPM (“ECAPM”), and (4) a
20 Bond Yield Plus Risk Premium methodology. Mr. Hevert also performs an

1 Expected Earnings analysis which he uses to place his recommendation within
 2 his proposed return on equity range.⁴² The results of Mr. Hevert's equity
 3 return studies are summarized in Table 11 below.

TABLE 11		
<u>Hevert's Return on Equity Estimates</u>		
Description	Mean¹	Adjusted
	(1)	(2)
<u>Constant Growth DCF</u>		
30-Day Average	9.66%	8.59%
90-Day Average	9.73%	8.66%
180-Day Average	9.75%	8.69%
<u>CAPM Results (Bloomberg Beta)</u>		
Current 30-Yr Treasury (BL - 2.92%)	8.94%	7.79%
Current 30-Yr Treasury (VL - 2.92%)	9.80%	7.79%
Near-Term Projected 30-Yr Treasury (BL - 3.08%)	9.10%	7.95%
Near-Term Projected 30-Yr Treasury (VL - 3.08%)	9.97%	7.95%
<u>CAPM Results (Value Line Beta)</u>		
Current 30-Yr Treasury (BL - 2.92%)	10.14%	8.76%
Current 30-Yr Treasury (VL - 2.92%)	11.18%	8.76%
Near-Term Projected 30-Yr Treasury (BL - 3.08%)	10.31%	8.93%
Near-Term Projected 30-Yr Treasury (VL - 3.08%)	11.35%	8.93%
<u>ECAPM Results (Bloomberg Beta)</u>	10.06%-11.25%	Reject
<u>ECAPM Results (Value Line Beta)</u>	10.96%-12.28%	Reject
Range	9.90% to 10.75%	
Recommended ROE	10.50%	9.00%
Source: ¹ Hevert Direct at 5-6; Table 2		

⁴²Hevert Direct at 6-7.

1 **Q ARE MR. HEVERT’S RETURN ON EQUITY ESTIMATES REASONABLE?**

2 A No. Mr. Hevert’s estimated return on equity is overstated and should be
3 rejected. Mr. Hevert’s analyses produce excessive results for various
4 reasons, including the following:

- 5 1. His constant growth DCF results are based on unsustainably high
6 growth rates;
- 7 2. His CAPM is based on inflated market risk premiums;
- 8 3. His ECAPM is based on a flawed methodology; and
- 9 4. His Bond Yield Plus Risk Premium studies are based on inflated utility
10 equity risk premiums.

11 Mr. Hevert also developed an Expected Earnings analysis as a gauge to help
12 formulate his recommended return on equity and point estimate; however, he
13 does not appear to have considered this analysis within his market-based
14 models. Finally, Mr. Hevert also estimated a flotation cost return on equity
15 adder of 9 basis points, but again he did not include this directly in his DCF,
16 CAPM and Risk Premium results. Rather, he used it to attempt to gauge
17 where his recommended return on equity would be within his market-based
18 model return estimates. Hence, while it was not an explicit adder, it clearly
19 appears to be included in his recommended return on equity.

20 **Q PLEASE SUMMARIZE MR. HEVERT’S RETURN ON EQUITY ESTIMATES.**

21 A As outlined in Table 11 above, Mr. Hevert’s indicated cost of equity ranges
22 from 8.9% up to above 11%. However, Mr. Hevert’s estimated return on
23 equity ignores relevant market data that would support a more reasonable

1 return on equity, or includes unrealistic projections of expected market returns,
2 and thereby overstates appropriate returns for companies with risk beneath
3 that of the overall market. As shown in Table 11 above under Column 2, I
4 make adjustments to Mr. Hevert's recommendations or reject his models
5 outright if it is not possible to produce an accurate estimate from those
6 models. Based on these updates and corrections to Mr. Hevert's analysis, his
7 methodologies would support my recommended return on equity of 9.0% as
8 reasonable.

9 As noted in Table 11 above, certain of Mr. Hevert's estimates are
10 reasonable, while others require modification, and finally, certain adjustments
11 should be rejected outright. Corrections and improvements to the accuracy of
12 Mr. Hevert's return on equity estimates will be described here.

13 **IV.A. Hevert DCF**

14 **IV.A.1. Hevert Constant Growth DCF**

15 **Q PLEASE DESCRIBE MR. HEVERT'S CONSTANT GROWTH DCF RETURN**
16 **ESTIMATES.**

17 **A** His constant growth DCF returns are developed on his DEU Exhibit 2.01.
18 Mr. Hevert's constant growth DCF models are based on consensus growth
19 rates published by Zacks and First Call, retention growth rates and individual
20 growth rate projections made by *Value Line*.

1 He relied on dividend yield calculations based on average stock prices
2 over three different time periods: 30-day, 90-day, and 180-day ending
3 May 17, 2019 – all reflecting one-half year dividend growth adjustments.

4 **Q ARE THE CONSTANT GROWTH DCF RESULTS PRODUCED BY MR.**
5 **HEVERT REASONABLE?**

6 A Mr. Hevert's constant growth DCF results are skewed because the *Value Line*
7 individual growth rates, and the retention growth rates of 9.63% and 7.25% are
8 significantly higher than a reasonable outlook for long-term sustainable
9 growth. The consensus analysts' growth rates by First Call and Zacks are far
10 more reasonable long-term growth projections. As shown on my FEA Exhibit
11 1.19, using Mr. Hevert's market data and his consensus analysts' growth
12 projections would support a DCF return of no higher than 8.7%.

13 **IV.A.2. Hevert Multi-Stage Growth DCF**

14 **Q DID MR. HEVERT PERFORM A MULTI-STAGE GROWTH DCF ANALYSIS?**

15 A No, he did not. It has been Mr. Hevert's standard practice to perform a multi-
16 stage DCF analysis but in this regulatory proceeding he deviated from his
17 standard approach.

1 Q DID MR. HEVERT PROVIDE ANY EXPLANATION ON WHY HE CHOSE
2 NOT TO DEVELOP A MULTI-STAGE DCF?

3 A Not in his testimony.

4 Q DO YOU BELIEVE THAT A MULTI-STAGE DCF MODEL IS APPROPRIATE
5 TO CONSIDER IN THIS REGULATORY PROCEEDING?

6 A Yes, I do. As discussed in regard to my own DCF study, the current growth
7 rates are significantly higher than the long-term sustainable growth as
8 measured by the consensus analysts' GDP growth rate. Therefore, using the
9 long-term GDP growth rate as a conservative projection for the maximum
10 sustainable growth rate is logical, and is generally consistent with academic
11 and economic practitioner accepted practices as discussed above.

12 **IV.B. Mr. Hevert's CAPM Studies**

13 Q PLEASE DESCRIBE MR. HEVERT'S CAPM ANALYSIS.

14 A As indicated above, the CAPM analysis is based upon the theory that the
15 market required rate of return for a security is equal to the risk-free rate, plus a
16 risk premium associated with the specific security. The risk premium
17 associated with the specific security is expressed mathematically as:

18 $B_i \times (R_m - R_f)$ where:

19 B_i = Beta - Measure of the risk for stock
20 R_m = Expected return for the market portfolio
21 R_f = Risk-free rate

1 **Q PLEASE DESCRIBE THE ISSUES YOU HAVE WITH MR. HEVERT’S CAPM**
2 **STUDY.**

3 A My primary issue with Mr. Hevert’s CAPM studies is that his market risk
4 premiums are overstated because they do not reflect a reasonable estimate of
5 the expected return on the market.

6 **Q PLEASE DESCRIBE MR. HEVERT’S MARKET RISK PREMIUMS.**

7 A Mr. Hevert derived his market risk premiums by conducting a DCF analysis for
8 the market. Mr. Hevert used two market risk premium estimates. They are
9 DCF-derived market risk premiums of 10.51% (Bloomberg) and 12.02%
10 (*Value Line*), which are based on market DCF returns of 13.42% and 14.93%,
11 respectively, less the current 30-year Treasury bond yield of 2.92%.⁴³

12 **Q WHAT ISSUES DO YOU HAVE WITH MR. HEVERT’S DCF-DERIVED**
13 **MARKET RISK PREMIUM ESTIMATES?**

14 A Mr. Hevert’s DCF-derived market risk premiums are based on market returns
15 of approximately 13.42% and 14.93%, which consist of growth rate
16 components of approximately 11.42% and 12.69% and a market-weighted
17 expected dividend yield of approximately 2.00% and 2.24%, respectively.⁴⁴ As
18 discussed above with respect to my own DCF model, the DCF model requires
19 a long-term sustainable growth rate. Mr. Hevert’s sustainable market growth

⁴³DEU Exhibit 2.03, page 1 and page 8.

⁴⁴*Id.* (13.42% = 11.42% + 2.00% and 14.93% = 12.69% + 2.24%).

1 rates of approximately 11.42% and 12.69% are far too high to be a rational
2 outlook for sustainable long-term market growth. These growth rates are more
3 than two times the growth rate of the U.S. GDP long-term growth outlook of
4 4.10%.

5 As a result of these unreasonable long-term market growth rate
6 estimates, Mr. Hevert's market DCF returns used within his CAPM analysis
7 are inflated and not reliable. Consequently, Mr. Hevert's 10.51% (Bloomberg)
8 and 12.02% (*Value Line*) market risk premiums should be given minimal
9 weight in estimating DEU's CAPM-based cost of common equity.

10 **Q DO HISTORICAL ACTUAL RETURNS ON THE MARKET SUPPORT**
11 **MR. HEVERT'S PROJECTED MARKET RETURNS?**

12 A No. This is significant because Mr. Hevert does rely on historical market
13 returns to produce real returns on the market for use in developing his GDP
14 growth forecast in his DCF study. Using the same line of logic, historical data
15 shows just how unreasonable Mr. Hevert's projected DCF return on the market
16 is going forward.

1 **Q PLEASE EXPLAIN.**

2 A Duff & Phelps estimates the actual capital appreciation for the S&P 500 over
3 the period 1926 through 2018 to have been 5.8% to 7.7%.⁴⁵ This compares to
4 Mr. Hevert's projected growth of the market of 11.42% to 12.69%.

5 Further, historically the geometric growth of the market of 5.8%⁴⁶ has
6 reflected geometric growth of GDP over this same time period of
7 approximately 6.1%.

8 This review of historical data establishes two facts very clearly. First,
9 historical, actual achieved growth has been substantially less than projected
10 by Mr. Hevert. Second, historical growth of the market has tracked historical
11 growth of the U.S. GDP. Projected growth of the U.S. GDP now is closer to
12 the 4.0% to 4.5% range. All of this information strongly supports the
13 conclusion that Mr. Hevert's projected growth on the market of 11.42% to
14 12.69% is substantially overstated. While I do not endorse the use of an
15 historical growth rate to draw assessments of the market's forward-looking
16 growth rate outlooks, this data can be used to show how the market return
17 estimates produced by Mr. Hevert are unreasonable and inflated.

⁴⁵Duff & Phelps, *2019 SBBI Yearbook* at 6-17.

⁴⁶*Id.*

1 **Q CAN MR. HEVERT’S CAPM ANALYSIS BE REVISED TO REFLECT A**
2 **MORE REASONABLE MARKET RISK PREMIUM AND RECENT RISK-**
3 **FREE RATES?**

4 A Yes. Using Mr. Hevert’s risk-free rates of 2.92% and 3.08%, the average
5 Bloomberg and *Value Line* beta estimates of 0.573 and 0.688,⁴⁷ respectively,
6 and my calculated high-end market risk premium of 8.5%, Mr. Hevert’s CAPM
7 would be no higher than 9.0%.

8 **IV.C. Mr. Hevert’s ECAPM Studies**

9 **Q PLEASE DESCRIBE MR. HEVERT’S ECAPM ANALYSIS.**

10 A Mr. Hevert relies on empirical tests of the traditional CAPM model to modify it
11 in such a way to attempt to *correct* the original CAPM for some deficiencies
12 inherent in the original model. Empirical tests show that the expected return
13 line, or security market line, predicted by the CAPM are not as steep as the
14 model would have us believe. In other words, the traditional CAPM
15 understates the expected return for securities with betas less than 1, and
16 overstates the expected return for securities with betas greater than 1. In
17 order to correct for this empirical finding, Mr. Hevert modifies the traditional
18 CAPM model as follows:

⁴⁷DEU Exhibit 2.04.

1 $R_i = R_f + 0.75 \times B_i \times (R_m - R_f) + 0.25 \times B_m \times (R_m - R_f)$ where:

2 R_i = Required return for stock i

3 R_f = Risk-free rate

4 R_m = Expected return for the market portfolio

5 B_m = Beta of the market

B_i = Beta - Measure of the risk for stock

6 **Q WHAT ISSUES DO YOU TAKE WITH MR. HEVERT'S ECAPM ANALYSIS?**

7 A The biggest issue I have with Mr. Hevert's ECAPM analysis is his use of an
8 adjusted beta as published by *Value Line*. The impact of Mr. Hevert's ECAPM
9 adjustments increases his adjusted beta estimate of 0.573 from Bloomberg
10 and 0.688 from *Value Line* to 0.68 and 0.69, respectively.⁴⁸ The weighting
11 adjustments applied in the ECAPM are mathematically the same as adjusting
12 beta since the inputs are all multiplicative as shown in the formula above.

13 Further, Mr. Hevert's reliance on an adjusted *Value Line* beta in his
14 ECAPM study is inconsistent with the academic research that I am aware of
15 supporting the development of the ECAPM.⁴⁹ The end result of using
16 adjusted betas in the ECAPM is essentially an expected return line that has
17 been flattened by two adjustments. In other words, the vertical intercept has
18 been raised twice and the security market line has been flattened twice: once
19 through the adjustments *Value Line* made to the raw beta, and again by
20 weighting the risk-adjusted market risk premium as Mr. Hevert has done. In

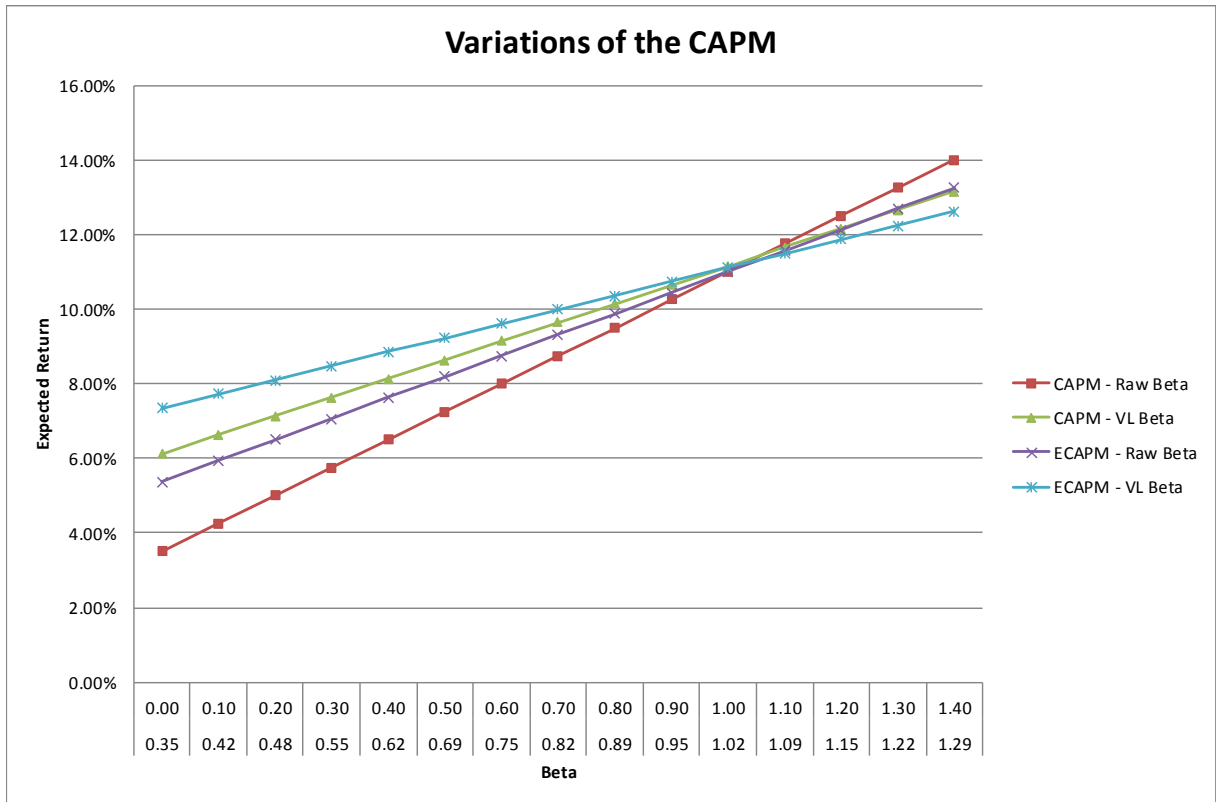
⁴⁸ $75\% \times 0.573 + 25\% \times 1 = 0.68$ (Bloomberg) and $75\% \times 0.688 + 25\% \times 1 = 0.77$ (Value Line).

⁴⁹See Black, Fischer, "Beta and Return," *The Journal of Portfolio Management*, Fall 1993, 8-18; and Black, Fischer, Michael C. Jensen and Myron Scholes, "The Capital Asset Pricing Model: Some Empirical Tests," 1972.

1 addition to the many adjustments employed by Mr. Hevert, he further
2 increases the intercept and flattens the security market line by using projected
3 long-term Treasury yields that are at odds with current market expectations
4 and inconsistent with the Federal Reserve's projections and monetary policy.

5 Mr. Hevert goes over the theory of the ECAPM at pages 63-65 of
6 Appendix A in his direct testimony. As explained in the footnotes on page 64
7 of Mr. Hevert's direct testimony, the ECAPM will raise the intercept point of the
8 security market line and flatten the slope. Again, this has the effect of
9 increasing CAPM return estimates for companies with betas less than 1, and
10 decreasing the CAPM return estimates for companies with betas greater than
11 1. I have modeled the expected return line resulting from the application of the
12 various forms of the CAPM/ECAPM below in Figure 5.

FIGURE 5



1 Along the horizontal axis in Figure 5 above, I have provided the raw
 2 unadjusted beta (top row) and the corresponding adjusted *Value Line*
 3 beta (bottom row). As shown in Figure 5 above, the CAPM using a *Value Line*
 4 beta compared to the CAPM using an unadjusted beta shows that the *Value Line*
 5 beta raises the intercept point and flattens the slope of the security market
 6 line. As shown in the figure above, the two variations with the most similar
 7 slope are the CAPM with the *Value Line* beta, and the ECAPM with a raw
 8 beta. This evidence shows that the ECAPM adjustment has a very similar
 9 impact on the expected return line as a *Value Line* beta. Another observation
 10 that can be made from the figure above is the magnifying effect that the

1 ECAPM using a *Value Line* beta has on raising the vertical intercept and
2 flattening the slope relative to all other variations. There is simply no
3 legitimate basis to use an adjusted beta within an ECAPM because it
4 unjustifiably alters the security market line and materially inflates a CAPM
5 return for a company with a beta less than 1.

6 **Q IN YOUR EXPERIENCE, IS MR. HEVERT'S PROPOSED USE OF AN**
7 **ADJUSTED BETA IN AN ECAPM STUDY WIDELY ACCEPTED IN THE**
8 **REGULATORY ARENA?**

9 A No. In my experience, regulatory commissions generally disregard the use of
10 the ECAPM, particularly when an adjusted beta is used in the model.

11 **Q IS THERE A WAY TO MORE ACCURATELY MEASURE THE COST OF**
12 **EQUITY FOR DEU USING THE ECAPM?**

13 A Because the ECAPM model is based on an unadjusted regression beta, if the
14 appropriate beta is used in the ECAPM it would produce a reasonable return
15 estimate. This can be accomplished by removing, or backing out, the
16 adjustment from *Value Line's* published beta.

17 Removing *Value Line's* beta adjustment will produce the original
18 regression beta estimate. Using this regression beta in the ECAPM will
19 produce a more accurate result than that offered by Mr. Hevert. As explained
20 earlier, Mr. Hevert's proxy group has an average *Value Line* beta of 0.688. By

1 removing the adjustments that Value Line made to produce the proxy group's
2 average 0.688 beta, I have calculated the original regression beta of 0.50.⁵⁰
3 Using the regression beta of 0.50 in the ECAPM model shown above will
4 produce an expected return estimate of approximately 8.2%.⁵¹

5 **IV.D. Bond Yield Plus ("BYP") Risk Premium**

6 **Q PLEASE DESCRIBE MR. HEVERT'S BYP RISK PREMIUM**
7 **METHODOLOGY.**

8 A As shown on his DEU Exhibit 2.06, Mr. Hevert constructs a risk premium
9 return on equity estimate based on the premise that equity risk premiums are
10 inversely related to interest rates. He estimates the average electric equity
11 risk premiums of 4.70% over the period January 1980 through May 2019. He
12 then applies a regression formula to the current, near-term, and long-term
13 projected 30-year Treasury bond yields of 2.92%, 3.08%, and 4.05% to
14 produce electric equity risk premiums of 6.96%, 6.81%, and 6.06%,
15 respectively. Thus, he calculates electric return on equity estimates of 9.87%,
16 9.89%, and 10.11%, respectively.

17 **Q IS MR. HEVERT'S BYP RISK PREMIUM METHODOLOGY REASONABLE?**

18 A No. Mr. Hevert contends that there is a simplistic inverse relationship between
19 equity risk premiums and interest rates without any regard to differences in

⁵⁰ Raw Beta = (VL Beta - 0.35) / 0.67, Raw Beta = (0.688-0.35%) / 0.67 = 0.50.

⁵¹ECAPM = RF + 0.25 x MRP + 0.75 x MRP x Unadjusted Beta. ECAPM = 2.92% + 0.25 x 8.5% + 0.75 x 8.5% x 0.50 = 8.2%.

1 investment risk or other market factors. Academic studies are quite clear that
2 interest rates are a relevant factor in assessing current market equity risk
3 premiums, but the risk premium ties more specifically to the market's
4 perception of investment risk of debt and equity securities, and not simply
5 changes in interest rates.

6 More specifically, while academic studies have shown that, in the past,
7 there has been an inverse relationship among these variables, researchers
8 have found that the relationship changes over time and is influenced by
9 changes in perception of the risk of bond investments relative to equity
10 investments, and not simply changes to interest rates.⁵²

11 In the 1980s, equity risk premiums were inversely related to interest
12 rates, but that was likely attributable to the interest rate volatility that existed at
13 that time. As such, when interest rates were more volatile, perceptions of
14 bond investment risk increased relative to the investment risk of equities. This
15 changing investment risk perception caused changes in equity risk premiums.

16 In today's marketplace, interest rate volatility is not as extreme as it was
17 during the 1980s.⁵³ Nevertheless, changes in the perceived risk of bond
18 investments relative to equity investments still drive changes in equity
19 premiums and cannot be measured simply by observing nominal interest

⁵²Robert S. Harris and Felicia C. Marston, "The Market Risk Premium: "Expectational Estimates Using Analysts' Forecasts," *Journal of Applied Finance*, Volume 11, No. 1, 2001 at 10-13; Eugene F. Brigham, Dilip K. Shome, and Steve R. Vinson, "The Risk Premium Approach to Measuring a Utility's Cost of Equity," *Financial Management*, Spring 1985 at 42-43.

⁵³Eugene F. Brigham, Dilip K. Shome, and Steve R. Vinson, "The Risk Premium Approach to Measuring a Utility's Cost of Equity," *Financial Management*, Spring 1985 at 44.

1 rates. Changes in nominal interest rates are heavily influenced by changes to
2 inflation outlooks, which also change equity return expectations. As such, the
3 relevant factor needed to explain changes in equity risk premiums is the
4 relative changes between the risk of equity versus debt investments, and not
5 simply changes in interest rates.

6 Importantly, Mr. Hevert's analysis simply ignores investment risk
7 differentials. He bases his adjustment to the equity risk premium exclusively
8 on changes in nominal interest rates. This is a flawed methodology that does
9 not produce accurate or reliable risk premium estimates.

10 **Q DO YOU BELIEVE THAT THE REGRESSION STUDY USED BY MR.**
11 **HEVERT IN HIS BYP DEMONSTRATES AN ACCURATE CAUSE AND**
12 **EFFECT BETWEEN INTEREST RATES AND EQUITY RISK PREMIUMS?**

13 **A** No. Because the returns on equity he uses are authorized by commissions,
14 those returns on equity are not directly adjusted by market forces. Rather,
15 authorized equity returns are adjusted by commission policy and regulatory
16 practices. In contrast, bond interest rates or bond yields are controlled entirely
17 by market forces.

18 This is significant because regulatory commissions rely on policies and
19 requirements to change authorized returns on equity based on more factors
20 than changes in capital market costs. For example, if capital market costs are
21 declining, the commission may reduce authorized returns on equity at a slower

1 pace than market changes in order to ensure that the approved equity return
2 will support the utility's financial integrity, and possibly will limit significant
3 changes to the utility's revenues and tariff prices. Utilities have contractual
4 provisions that prevent the refinancing of embedded debt with lower cost
5 market priced marginal debt when capital market costs decline. These limits
6 may cause commissions to exercise caution in reducing authorized equity
7 returns as interest rates decline.

8 I would note that this opinion is also shared by Moody's, which
9 observed in a 2015 assessment of the utility industry that "ROEs declined in a
10 lagging fashion compared to falling interest rates."⁵⁴ Mr. Hevert's regression
11 study fails to reflect this common sense-based rejection of a causal
12 relationship between equity returns and changes in bond yields.

13 Mr. Hevert's measurement based on only changes in interest rates is
14 not reliable and should be rejected.

15 **Q DO YOU HAVE ANY COMMENTS CONCERNING MR. HEVERT'S BYP**
16 **RISK PREMIUM METHODOLOGY?**

17 **A** Yes. Mr. Hevert's use of a long-term projected bond yield of 4.05%⁵⁵ does not
18 reflect market participants' outlooks for DEU's cost of capital during the period
19 rates determined in this proceeding will be in effect. This bond yield is largely
20 based on projections of Treasury bond yields five to 10 years out. Those

⁵⁴ Moody's Investor Service: "US Regulated Utilities: Lower Authorized Equity Returns Will Not Hurt Near-Term Credit Profiles," March 10, 2015 at 5.

⁵⁵DEU Exhibit 2.06.

1 projections are highly uncertain and in any event do not reflect the cost of
2 capital in the test period or even the period over the next two to three years,
3 the period in which rates determined in this proceeding will largely be in effect.
4 As such, the risk premium methodology should be based on observable bond
5 yields in the market today, or at most reflect bond yield projections over the
6 next two to three years, the rate-effective period in this case.

7 **Q CAN MR. HEVERT'S BYP RISK PREMIUM ANALYSIS BE REVISED TO**
8 **REFLECT CURRENT PROJECTIONS OF TREASURY YIELDS?**

9 A Yes. Mr. Hevert's simplistic and incomplete notion that equity risk premiums
10 change only with changes to nominal interest rates should be rejected.
11 Adding my weighted average equity risk premium over Treasury bonds of
12 6.1%, as described above, to his Treasury yields of 2.92% and 3.08%,
13 produces a BYP result of 9.02% to 9.18%.

14 **IV.E. Hevert Expected Earnings Analysis**

15 **Q PLEASE DESCRIBE MR. HEVERT'S EXPECTED EARNINGS ANALYSIS.**

16 A Mr. Hevert's Expected Earnings analysis is based on the projected returns on
17 book equity for the electric utility companies followed by *Value Line* and
18 included in his proxy group as developed on her DEU Exhibit 2.07. Based on
19 this analysis, Mr. Hevert concluded that the average and median return on

1 equity results for his proxy group are 10.41% and 10.73%, respectively, for the
2 projected period 2022-2024.

3 **Q PLEASE DESCRIBE THE PROBLEMS WITH MR. HEVERT'S EXPECTED**
4 **EARNINGS ANALYSIS.**

5 A Mr. Hevert's Expected Earnings analysis should be rejected because this
6 approach does not measure the market required return appropriate for the
7 investment risk of DEU. Rather, it measures the book accounting return. The
8 market required return is not the same as the accounting return, and the two
9 can be – and in this instance are – vastly different.

10 The significant discrepancy between the level and meaning of a market-
11 required return and a book return on equity, can have significant implications
12 to both investors and customers, when used to set a fair return on equity for
13 ratemaking purposes. Simply stated, a market return provides a pure
14 measure of fair compensation to investors, and allows for setting rates that
15 provide no more than fair compensation. Conversely, using the earned return
16 on book equity can cause compensation to be either too high or too low, and
17 rates to be set either too low or too high, depending on the specific
18 circumstances when the book return is measured.

19 For example, if the proxy group's earned return on book equity is lower
20 than the market return, then this could be an indication that the rates for the
21 proxy group are too low and not providing fair compensation. As such, the

1 measured book return on equity would be an indication rates need to be
2 increased. However, if the earned return on book equity was used to estimate
3 a fair return for ratemaking purposes, then this depressed earnings level could
4 result in rates being set below a level that provides fair compensation to
5 investors, and may not support the utility's financial integrity. Conversely, if
6 the earned return on book equity for the proxy companies is above a fair
7 market return on equity, then that could be an indication that the rates for the
8 proxy companies produce more earnings than necessary to fairly compensate
9 investors, and using this inflated return on equity would result in rates which
10 are not just and reasonable for customers. In other words, the market return
11 on equity is an indication of whether or not earnings are fair and reasonable,
12 whereas the book return on equity generally is used to determine whether or
13 not rate revenues for utilities are either too high or too low. They cannot be
14 used interchangeably.

15 The market-required return is a long-standing practice in setting rates
16 for utility companies. This is because the market sets the required rate of
17 return for assuming the risk of an investment. To the extent the utility's
18 earnings are adequate to allow it to attract investors, then it will be able to sell
19 new equity shares to the market to secure capital needed to fund additional
20 rate base investments. If this long-standing practice of setting authorized
21 returns consistent with market returns is rejected, in favor of Mr. Hevert's
22 proposal to look at book returns on equity, then the balance between

1 estimating a fair return that is fair to both investors and customers will be
2 turned upside down, and the rate-setting practice could be substantially
3 impaired and would not be reliable.

4 The earned return on book equity is simply not an accurate or legitimate
5 basis upon which to determine what a fair and reasonable return on equity for
6 both investors and customers would be in setting rates. A fair return on equity
7 needs to be a return that represents fair compensation to utility investors, but
8 results in rate impacts on customers that are no more than necessary to
9 produce that fair compensation – except to the extent greater earnings are
10 necessary to maintain financial integrity or credit standing. For these reasons,
11 this methodology simply should be rejected.

12 **IV.F. Flotation Costs**

13 **Q DO YOU TAKE ISSUE WITH MR. HEVERT'S FLOTATION COST**
14 **ADJUSTMENT?**

15 **A** Yes, I do. Mr. Hevert estimated a 5 basis points flotation cost adjustment.⁵⁶
16 Mr. Hevert does not include an explicit flotation cost adjustment but he
17 considers it along with DEU's additional business risks in determining where
18 DEU's return on equity falls within the range of results.

19 This flotation cost adjustment is intended to recover the actual cost a
20 utility incurs by issuing additional stock to the public. However, Mr. Hevert

⁵⁶DEU Exhibit 2.09.

1 develops his flotation cost as the difference between the unadjusted DCF
2 result and the DCF result adjusted for flotation cost. His flotation cost
3 calculation is based on his proxy group companies.

4 **Q WHY IS THE FLOTATION COST ADJUSTMENT NOT REASONABLE?**

5 A The flotation cost adjustment is not based on the recovery of prudent and
6 verifiable actual flotation costs incurred by DEU. As shown on DEU Exhibit
7 2.09 of Mr. Hevert's direct testimony, he derives a flotation cost adder based
8 on other utility companies. Because he does not show that his adjustment is
9 based on DEU's actual and verifiable flotation expenses, there are no means
10 of verifying whether Mr. Hevert's proposal is reasonable or appropriate.
11 Stated differently, Mr. Hevert's flotation cost return on equity adder is not
12 based on known and measurable DEU costs.

13 **Q DOES THIS CONCLUDE YOUR DIRECT TESTIMONY?**

14 A Yes, it does.

Qualifications of Michael P. Gorman

1 **Q PLEASE STATE YOUR NAME AND BUSINESS ADDRESS.**

2 A Michael P. Gorman. My business address is 16690 Swingley Ridge Road,
3 Suite 140, Chesterfield, MO 63017.

4 **Q PLEASE STATE YOUR OCCUPATION.**

5 A I am a consultant in the field of public utility regulation and a Managing
6 Principal with the firm of Brubaker & Associates, Inc. (“BAI”), energy,
7 economic and regulatory consultants.

8 **Q PLEASE SUMMARIZE YOUR EDUCATIONAL BACKGROUND AND WORK
9 EXPERIENCE.**

10 A In 1983 I received a Bachelor of Science Degree in Electrical Engineering from
11 Southern Illinois University, and in 1986, I received a Master’s Degree in
12 Business Administration with a concentration in Finance from the University of
13 Illinois at Springfield. I have also completed several graduate level economics
14 courses.

15 In August of 1983, I accepted an analyst position with the Illinois
16 Commerce Commission (“ICC”). In this position, I performed a variety of
17 analyses for both formal and informal investigations before the ICC, including:
18 marginal cost of energy, central dispatch, avoided cost of energy, annual

1 system production costs, and working capital. In October of 1986, I was
2 promoted to the position of Senior Analyst. In this position, I assumed the
3 additional responsibilities of technical leader on projects, and my areas of
4 responsibility were expanded to include utility financial modeling and financial
5 analyses.

6 In 1987, I was promoted to Director of the Financial Analysis
7 Department. In this position, I was responsible for all financial analyses
8 conducted by the Staff. Among other things, I conducted analyses and
9 sponsored testimony before the ICC on rate of return, financial integrity,
10 financial modeling and related issues. I also supervised the development of all
11 Staff analyses and testimony on these same issues. In addition, I supervised
12 the Staff's review and recommendations to the Commission concerning utility
13 plans to issue debt and equity securities.

14 In August of 1989, I accepted a position with Merrill-Lynch as a financial
15 consultant. After receiving all required securities licenses, I worked with
16 individual investors and small businesses in evaluating and selecting
17 investments suitable to their requirements.

18 In September of 1990, I accepted a position with Drazen-Brubaker &
19 Associates, Inc. ("DBA"). In April 1995, the firm of Brubaker & Associates, Inc.
20 was formed. It includes most of the former DBA principals and Staff. Since
21 1990, I have performed various analyses and sponsored testimony on cost of
22 capital, cost/benefits of utility mergers and acquisitions, utility reorganizations,

1 level of operating expenses and rate base, cost of service studies, and
2 analyses relating to industrial jobs and economic development. I also
3 participated in a study used to revise the financial policy for the municipal
4 utility in Kansas City, Kansas.

5 At BAI, I also have extensive experience working with large energy
6 users to distribute and critically evaluate responses to requests for proposals
7 (“RFPs”) for electric, steam, and gas energy supply from competitive energy
8 suppliers. These analyses include the evaluation of gas supply and delivery
9 charges, cogeneration and/or combined cycle unit feasibility studies, and the
10 evaluation of third-party asset/supply management agreements. I have
11 participated in rate cases on rate design and class cost of service for electric,
12 natural gas, water and wastewater utilities. I have also analyzed commodity
13 pricing indices and forward pricing methods for third party supply agreements,
14 and have also conducted regional electric market price forecasts.

15 In addition to our main office in St. Louis, the firm also has branch
16 offices in Phoenix, Arizona and Corpus Christi, Texas.

17 **Q HAVE YOU EVER TESTIFIED BEFORE A REGULATORY BODY?**

18 **A** Yes. I have sponsored testimony on cost of capital, revenue requirements,
19 cost of service and other issues before the Federal Energy Regulatory
20 Commission and numerous state regulatory commissions including:
21 Arkansas, Arizona, California, Colorado, Delaware, Florida, Georgia, Idaho,

1 Illinois, Indiana, Iowa, Kansas, Louisiana, Michigan, Mississippi, Missouri,
2 Montana, New Jersey, New Mexico, New York, North Carolina, Ohio,
3 Oklahoma, Oregon, South Carolina, Tennessee, Texas, Utah, Vermont,
4 Virginia, Washington, West Virginia, Wisconsin, Wyoming, and before the
5 provincial regulatory boards in Alberta and Nova Scotia, Canada. I have also
6 sponsored testimony before the Board of Public Utilities in Kansas City,
7 Kansas; presented rate setting position reports to the regulatory board of the
8 municipal utility in Austin, Texas, and Salt River Project, Arizona, on behalf of
9 industrial customers; and negotiated rate disputes for industrial customers of
10 the Municipal Electric Authority of Georgia in the LaGrange, Georgia district.

11 **Q PLEASE DESCRIBE ANY PROFESSIONAL REGISTRATIONS OR**
12 **ORGANIZATIONS TO WHICH YOU BELONG.**

13 A I earned the designation of Chartered Financial Analyst (“CFA”) from the CFA
14 Institute. The CFA charter was awarded after successfully completing three
15 examinations which covered the subject areas of financial accounting,
16 economics, fixed income and equity valuation and professional and ethical
17 conduct. I am a member of the CFA Institute’s Financial Analyst Society.

**BEFORE THE
PUBLIC SERVICE COMMISSION OF UTAH**

IN THE MATTER OF THE)
APPLICATION OF DOMINION)
ENERGY UTAH TO INCREASE)
DISTRIBUTION RATES AND)
CHARGES AND MAKE TARIFF)
MODIFICATIONS)
_____)

DOCKET NO. 19-057-02

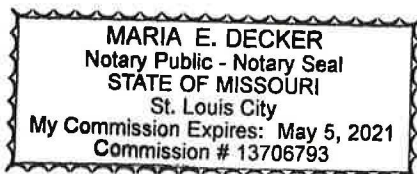
State of Missouri)
) ss.
County of Saint Louis)


I, Michael P. Gorman, being first duly sworn on oath, state that the answers in the foregoing written testimony are true and correct to the best of my knowledge, information and belief. Except as stated in the testimony, the exhibits attached to the testimony were prepared by me or under my direction and supervision, and they are true and correct to the best of my knowledge, information and belief. Any exhibits not prepared by me or under my direction and supervision are true and correct copies of the documents they purport to be.



Michael P. Gorman

SUBSCRIBED AND SWORN TO this 16th day of October, 2019.





Notary Public

Dominion Energy Utah

Rate of Return (December 31, 2020)

<u>Line</u>	<u>Description</u>	<u>Weight</u> (1)	<u>Cost</u> (2)	Weighted <u>Cost</u> (3)
1	Long-Term Debt	48.00%	4.37%	2.10%
2	Common Equity	<u>52.00%</u>	9.00%	<u>4.68%</u>
3	Total	100.00%		6.78%

Source: DEU Exhibit 3.31

Dominion Energy Utah

Capital Structure (\$000)

<u>Description</u>	<u>2018</u>	<u>2017</u>	<u>2016</u>	<u>2015</u>	<u>2014</u>
<u>Long-Term Capital</u>					
Common Equity	\$1,011.8	\$725.1	\$657.6	\$624.7	\$597.0
Long-Term debt	<u>\$745.3</u>	<u>\$595.9</u>	<u>\$616.3</u>	<u>\$534.5</u>	<u>\$534.5</u>
Total Long-Term capital	\$1,757.1	\$1,321.0	\$1,273.9	\$1,159.2	\$1,131.5
Common Equity	57.6%	54.9%	51.6%	53.9%	52.8%
Long-Term debt	<u>42.4%</u>	<u>45.1%</u>	<u>48.4%</u>	<u>46.1%</u>	<u>47.2%</u>
Total Long-Term capital	100.0%	100.0%	100.0%	100.0%	100.0%
<u>Total Capital</u>					
Common Equity	\$1,011.8	\$725.1	\$657.6	\$624.7	\$597.0
Short-Term debt	\$20.5	\$360.0	\$262.5	\$273.3	\$119.3
Long-Term debt	<u>\$745.3</u>	<u>\$595.9</u>	<u>\$616.3</u>	<u>\$534.5</u>	<u>\$534.5</u>
Total Long-Term capital	\$1,777.6	\$1,681.0	\$1,536.4	\$1,432.5	\$1,250.8
Common Equity	56.9%	43.1%	42.8%	43.6%	47.7%
Short-Term debt	1.2%	21.4%	17.1%	19.1%	9.5%
Long-Term debt	<u>41.9%</u>	<u>35.4%</u>	<u>40.1%</u>	<u>37.3%</u>	<u>42.7%</u>
Total Capital	100.0%	100.0%	100.0%	100.0%	100.0%

Source:

S&P Capital IQ, Credit Stats Direct, downloaded on October 3, 2019.

Dominion Energy Utah

Electric Utilities (Valuation Metrics)

Line	Company	Dividend per Share ¹													
		14-Year Average (1)	2019 ² (2)	2018 (3)	2017 (4)	2016 (5)	2015 (6)	2014 (7)	2013 (8)	2012 (9)	2011 (10)	2010 (11)	2009 (12)	2008 (13)	2007 (14)
1	ALLETE	1.90	2.35	2.24	2.14	2.08	2.02	1.96	1.90	1.84	1.78	1.76	1.72	1.64	1.45
2	Alliant Energy	0.96	1.42	1.34	1.26	1.18	1.10	1.02	0.94	0.90	0.85	0.79	0.75	0.64	0.58
3	Ameren Corp.	1.86	1.93	1.85	1.78	1.72	1.66	1.61	1.60	1.60	1.56	1.54	1.54	2.54	2.54
4	American Electric Power	1.99	2.72	2.53	2.39	2.27	2.15	2.03	1.95	1.88	1.85	1.71	1.64	1.58	1.50
5	Avangrid, Inc.	1.74	1.76	1.74	1.73	1.73	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
6	Avista Corp.	1.11	1.55	1.49	1.43	1.37	1.32	1.27	1.22	1.16	1.10	1.00	0.81	0.69	0.57
7	Black Hills	1.58	2.05	1.93	1.81	1.68	1.62	1.56	1.52	1.48	1.46	1.44	1.40	1.37	1.32
8	CenterPoint Energy	0.90	1.16	1.12	1.35	1.03	0.99	0.95	0.83	0.81	0.79	0.78	0.76	0.73	0.68
9	CMS Energy Corp.	0.95	1.53	1.43	1.33	1.24	1.16	1.08	1.02	0.96	0.84	0.68	0.50	0.20	N/A
10	Consolid. Edison	2.53	2.86	2.86	2.76	2.68	2.60	2.52	2.46	2.42	2.40	2.38	2.36	2.32	2.30
11	Dominion Resources	2.30	3.67	3.34	3.04	2.80	2.59	2.40	2.25	2.11	1.97	1.83	1.75	1.58	1.38
12	DTE Energy	2.67	3.84	3.59	3.36	3.06	2.84	2.69	2.59	2.42	2.32	2.18	2.12	2.12	2.08
13	Duke Energy	3.13	3.75	3.64	3.49	3.36	3.24	3.15	3.09	3.03	2.97	2.91	2.82	2.70	2.58
14	Edison Int'l	1.59	2.45	2.43	2.23	1.98	1.73	1.48	1.37	1.31	1.29	1.27	1.25	1.23	1.18
15	El Paso Electric	1.16	1.52	1.42	1.32	1.23	1.17	1.11	1.05	0.97	0.66	N/A	N/A	N/A	1.10
16	Entergy Corp.	3.20	3.66	3.58	3.50	3.42	3.34	3.32	3.32	3.32	3.24	3.20	3.00	2.58	2.16
17	Eversource Energy	1.38	2.14	2.02	1.90	1.78	1.67	1.57	1.47	1.32	1.10	1.03	0.95	0.83	0.73
18	Energy, Inc.	1.94	1.94	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
19	Exelon Corp.	1.66	1.45	1.38	1.31	1.26	1.24	1.24	1.46	2.10	2.10	2.10	2.05	1.82	1.64
20	FirstEnergy Corp.	1.83	1.52	1.82	1.44	1.44	1.44	1.44	1.65	2.20	2.20	2.20	2.20	2.05	1.85
21	Fortis Inc.	1.27	1.85	1.75	1.65	1.55	1.43	1.30	1.25	1.21	1.17	1.12	1.04	0.82	0.67
22	Great Plains Energy	1.11	N/A	N/A	1.10	1.06	1.00	0.94	0.88	0.86	0.84	0.83	0.83	1.66	1.66
23	Hawaiian Elec.	1.24	1.28	1.24	1.24	1.24	1.24	1.24	1.24	1.24	1.24	1.24	1.24	1.24	1.24
24	IDACORP, Inc.	1.65	2.56	2.40	2.24	2.08	1.92	1.76	1.57	1.37	1.20	1.20	1.20	1.20	1.20
25	MGE Energy	1.10	1.38	1.32	1.26	1.21	1.16	1.11	1.07	1.04	1.01	0.99	0.97	0.96	0.94
26	NextEra Energy, Inc.	2.78	5.00	4.44	3.93	3.48	3.08	2.90	2.64	2.40	2.20	2.00	1.89	1.78	1.64
27	NorthWestern Corp.	1.65	2.30	2.20	2.10	2.00	1.92	1.60	1.52	1.48	1.44	1.36	1.34	1.32	1.24
28	OGE Energy	0.95	1.54	1.40	1.34	1.27	1.16	1.05	0.85	0.80	0.76	0.73	0.71	0.70	0.68
29	Other Tall Corp.	1.23	1.40	1.34	1.28	1.25	1.23	1.21	1.19	1.19	1.19	1.19	1.19	1.17	1.15
30	PG&E Corp.	1.70	N/A	N/A	1.55	1.93	1.82	1.82	1.82	1.82	1.82	1.82	1.68	1.44	1.32
31	Pinnacle West Capital	2.38	3.04	2.87	2.70	2.56	2.44	2.33	2.23	2.67	2.10	2.10	2.10	2.10	2.03
32	PNM Resources	0.77	1.18	1.09	0.99	0.88	0.80	0.76	0.68	0.58	0.50	0.50	0.50	0.61	0.86
33	Portland General	1.12	1.52	1.43	1.34	1.26	1.18	1.12	1.10	1.08	1.06	1.04	1.01	0.97	0.93
34	PPL Corp.	1.44	1.65	1.64	1.58	1.52	1.50	1.49	1.47	1.44	1.40	1.40	1.38	1.34	1.22
35	Public Serv. Enterprise	1.47	1.88	1.80	1.72	1.64	1.56	1.48	1.44	1.42	1.37	1.30	1.33	1.29	1.17
36	SCANA Corp.	2.00	N/A	N/A	2.45	2.30	2.18	2.10	2.03	1.98	1.94	1.90	1.88	1.84	1.76
37	Sempra Energy	2.36	3.87	3.58	3.29	3.02	2.80	2.64	2.52	2.40	1.92	1.56	1.56	1.37	1.24
38	Southern Co.	1.98	2.46	2.38	2.30	2.22	2.15	2.08	2.01	1.94	1.87	1.80	1.73	1.66	1.54
39	Vectren Corp.	1.42	N/A	N/A	1.71	1.62	1.54	1.46	1.43	1.41	1.39	1.37	1.35	1.31	1.27
40	WEC Energy Group	1.33	2.36	2.21	2.08	1.98	1.74	1.56	1.45	1.20	1.04	0.80	0.68	0.54	0.46
41	Westar Energy	1.30	N/A	N/A	1.60	1.52	1.44	1.40	1.36	1.32	1.28	1.24	1.20	1.16	1.08
42	Xcel Energy Inc.	1.17	1.62	1.52	1.44	1.36	1.28	1.20	1.11	1.07	1.03	1.00	0.97	0.94	0.88
43	Average	1.66	2.22	2.12	1.97	1.86	1.76	1.67	1.61	1.59	1.51	1.47	1.42	1.36	1.27
44	Industry Average Growth	4.40%	4.84%	7.61%	6.14%	5.80%	5.24%	3.58%	1.23%	5.69%	2.49%	3.36%	-0.08%	5.06%	6.45%

Sources:
¹ The Value Line Investment Survey Investment Analyzer Software, downloaded on June 25, 2019.
² The Value Line Investment Survey, June 14, July 26, and August 16, 2019.
 Notes:
 PG&E is excluded from 2017, 2018 and 2019 average calculations due to their Dividend Suspension.

Dominion Energy Utah

Electric Utilities (Valuation Metrics)

Line	Company	Cash Flow / Capital Spending				3 - 5 yr Projection (5)
		2017 (1)	2018 (2)	2019 (3)	2020 (4)	
1	ALLETE	1.61x	1.22x	0.73x	1.13x	1.76x
2	Alliant Energy	0.49x	N/A	0.65x	0.71x	0.85x
3	Ameren Corp.	0.75x	0.80x	0.81x	0.64x	0.98x
4	American Electric Power	0.67x	0.68x	0.68x	0.77x	0.88x
5	Avangrid, Inc.	0.57x	0.85x	0.68x	0.56x	0.69x
6	Avista Corp.	0.77x	0.78x	0.94x	0.86x	1.00x
7	Black Hills	1.17x	0.87x	0.55x	0.77x	1.22x
8	CenterPoint Energy	1.22x	0.98x	0.97x	1.05x	1.15x
9	CMS Energy Corp.	0.89x	0.77x	0.78x	0.76x	1.00x
10	Consol. Edison	0.76x	0.82x	0.80x	0.77x	0.90x
11	Dominion Resources	0.81x	1.04x	0.78x	1.00x	1.23x
12	DTE Energy	0.94x	0.84x	0.68x	1.07x	1.23x
13	Duke Energy	0.87x	0.81x	0.78x	0.86x	1.08x
14	Edison Int'l	0.94x	0.34x	0.73x	0.78x	0.83x
15	El Paso Electric	1.04x	0.86x	0.94x	1.01x	0.94x
16	Entergy Corp.	0.76x	0.73x	0.73x	0.95x	1.06x
17	Eversource Energy	0.79x	0.83x	0.78x	0.95x	1.26x
18	Evergy, Inc.	N/A	1.17x	1.25x	1.26x	1.61x
19	Exelon Corp.	1.06x	1.05x	1.20x	1.32x	1.52x
20	FirstEnergy Corp.	1.03x	0.76x	0.94x	1.02x	1.19x
21	Fortis Inc.	0.76x	0.72x	0.67x	0.75x	0.87x
22	Hawaiian Elec.	0.81x	0.85x	1.14x	1.12x	1.17x
23	IDACORP, Inc.	1.33x	1.42x	1.25x	1.27x	1.31x
24	MGE Energy	1.19x	0.66x	0.73x	0.77x	0.81x
25	NextEra Energy, Inc.	0.53x	0.56x	0.82x	0.94x	1.13x
26	NorthWestern Corp	1.21x	1.23x	1.11x	1.11x	1.38x
27	OGE Energy	0.81x	1.30x	1.29x	1.45x	1.67x
28	Otter Tail Corp.	1.10x	1.49x	0.80x	0.42x	1.73x
29	PG&E Corp.	0.82x	-0.58x	N/A	N/A	N/A
30	Pinnacle West Capital	0.76x	1.06x	1.04x	1.11x	1.21x
31	PNM Resources	0.84x	0.82x	0.72x	0.69x	0.90x
32	Portland General	1.07x	1.00x	1.05x	1.05x	1.59x
33	PPL Corp.	0.82x	0.93x	0.92x	1.06x	1.54x
34	Public Serv. Enterprise	0.64x	0.70x	1.13x	1.10x	1.29x
35	Sempra Energy	0.67x	0.80x	0.66x	0.93x	1.46x
36	Southern Co.	0.90x	0.83x	0.87x	1.01x	1.38x
37	WEC Energy Group	0.92x	0.90x	0.68x	0.68x	1.10x
38	Xcel Energy Inc.	0.84x	0.77x	0.68x	0.96x	1.10x
39	Average	0.90x	0.86x	0.86x	0.94x	1.19x
40	Median	0.84x	0.83x	0.80x	0.95x	1.17x

Sources:

The Value Line Investment Survey Investment Analyzer Software,
downloaded on June 25, 2019.

The Value Line Investment Survey, June 14, July 26, and August 16, 2019.

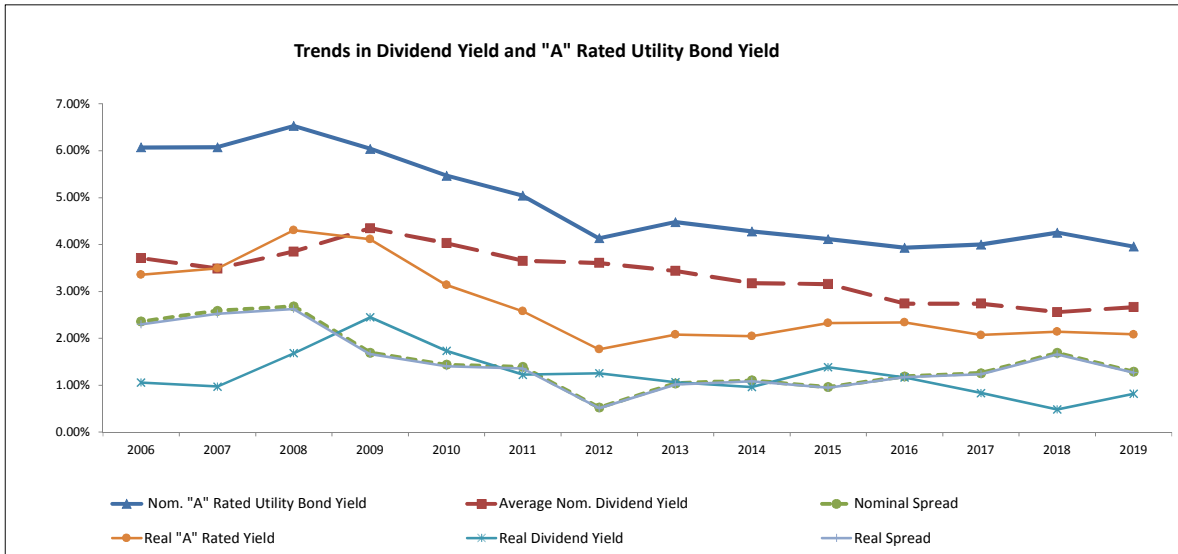
Notes:

Based on the projected Cash Flow per share and Capital Spending per share.

Dominion Energy Utah

Natural Gas Utilities (Valuation Metrics)

Line	Company	Dividend Yield ¹														
		14-Year Average (1)	2019 ^{2(a)} (2)	2018 (3)	2017 (4)	2016 (5)	2015 (6)	2014 (7)	2013 (8)	2012 (9)	2011 (10)	2010 (11)	2009 (12)	2008 (13)	2007 (14)	2006 (15)
1	Atmos Energy	3.62%	2.17%	2.27%	2.39%	2.39%	2.88%	3.11%	3.53%	4.13%	4.19%	4.70%	5.34%	4.78%	4.16%	4.66%
2	Chesapeake Utilities	2.92%	1.79%	1.69%	1.91%	1.91%	2.18%	2.44%	2.87%	3.25%	3.36%	3.91%	4.09%	4.10%	3.62%	3.76%
3	New Jersey Resources	3.19%	2.47%	2.69%	2.86%	2.86%	3.14%	3.50%	3.71%	3.88%	3.33%	3.69%	3.46%	3.35%	3.02%	3.19%
4	NiSource Inc.	4.05%	2.99%	2.79%	2.76%	2.76%	3.53%	2.69%	3.30%	3.84%	4.53%	5.66%	7.64%	5.69%	4.29%	4.21%
5	Northwest Nat. Gas	3.58%	3.03%	3.02%	3.28%	3.28%	4.01%	4.14%	4.22%	3.83%	3.85%	3.63%	3.73%	3.27%	3.12%	3.73%
6	ONE Gas Inc.	2.40%	2.41%	2.37%	2.32%	2.32%	2.71%	2.28%	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
7	South Jersey Inds.	3.32%	3.98%	3.20%	3.64%	3.64%	3.95%	3.40%	3.14%	3.22%	2.81%	3.00%	3.43%	3.08%	2.81%	3.15%
8	Southwest Gas	2.84%	2.74%	2.46%	2.62%	2.62%	2.87%	2.72%	2.69%	2.75%	2.78%	3.15%	4.01%	3.19%	2.56%	2.60%
9	Spire Inc.	3.81%	2.98%	3.09%	3.08%	3.08%	3.53%	3.78%	3.96%	4.11%	4.31%	4.70%	3.91%	3.94%	4.43%	4.34%
10	UGI Corp.	2.79%	2.08%	2.01%	2.35%	2.35%	2.50%	2.61%	3.01%	3.68%	3.30%	3.48%	3.23%	2.85%	2.69%	2.96%
11	WGL Holdings Inc.	3.84%	N/A	2.56%	2.94%	2.94%	3.41%	4.24%	3.94%	3.89%	4.06%	4.37%	4.62%	4.22%	4.19%	4.48%
12	Average	3.37%	2.66%	2.56%	2.74%	2.74%	3.16%	3.17%	3.44%	3.61%	3.65%	4.03%	4.35%	3.85%	3.49%	3.71%
13	Median	3.30%	2.60%	2.56%	2.76%	2.76%	3.14%	3.11%	3.42%	3.75%	3.60%	3.80%	3.96%	3.65%	3.37%	3.75%
14	20-Yr Treasury Yields ³	3.41%	2.57%	3.02%	2.65%	2.23%	2.55%	3.07%	3.12%	2.54%	3.62%	4.03%	4.11%	4.36%	4.91%	4.99%
15	20-Yr TIPS ³	1.26%	0.73%	0.94%	0.75%	0.66%	0.78%	0.87%	0.75%	0.21%	1.19%	1.73%	2.21%	2.19%	2.36%	2.31%
16	Implied Inflation ³	2.12%	1.83%	2.06%	1.89%	1.56%	1.75%	2.19%	2.35%	2.33%	2.40%	2.26%	1.85%	2.13%	2.49%	2.62%
17	Real Dividend Yield⁴	1.22%	0.81%	0.48%	0.83%	1.17%	1.38%	0.96%	1.06%	1.25%	1.22%	1.73%	2.45%	1.68%	0.97%	1.06%
Utility																
18	Nominal "A" Rated Yield ⁴	4.88%	3.95%	4.25%	4.00%	3.93%	4.12%	4.28%	4.48%	4.13%	5.04%	5.46%	6.04%	6.53%	6.07%	6.07%
19	Real "A" Rated Yield	2.70%	2.08%	2.14%	2.07%	2.34%	2.33%	2.04%	2.08%	1.76%	2.58%	3.13%	4.11%	4.31%	3.49%	3.36%
Spreads (Utility Bond - Stock)																
20	Nominal ⁴	1.51%	1.29%	1.69%	1.26%	1.19%	0.96%	1.11%	1.04%	0.52%	1.39%	1.43%	1.69%	2.68%	2.59%	2.36%
21	Real ⁴	1.48%	1.27%	1.66%	1.23%	1.17%	0.94%	1.08%	1.01%	0.51%	1.36%	1.40%	1.66%	2.62%	2.52%	2.30%
Spreads (Treasury Bond - Stock)																
22	Nominal ⁴	0.04%	-0.09%	0.46%	-0.09%	-0.52%	-0.61%	-0.10%	-0.32%	-1.06%	-0.03%	0.00%	-0.24%	0.51%	1.42%	1.28%
23	Real ⁴	0.04%	-0.09%	0.45%	-0.09%	-0.51%	-0.60%	-0.10%	-0.31%	-1.04%	-0.03%	0.00%	-0.23%	0.50%	1.39%	1.25%



Sources:

- ¹ The Value Line Investment Survey Investment Analyzer Software, downloaded on June 25, 2019.
- ² The Value Line Investment Survey, May 31, 2019.
- ³ St. Louis Federal Reserve: Economic Research, <http://research.stlouisfed.org>.
- ⁴ www.moodys.com, Bond Yields and Key Indicators, through August 30, 2019.

Notes:

- ^a Based on the average of the high and low price for 2019 and the projected 2019 Dividends Declared per share, published in The Value Line Investment Survey, May 31, 2019.
- ^b Line 16 = (1 + Line 14) / (1 + Line 15) - 1.
- ^c Line 17 = (1 + Line 12) / (1 + Line 16) - 1.
- ^d The spread being measured here is the nominal A-rated utility bond yield over the average nominal utility dividend yield; (Line 18 - Line 12).
- ^e The spread being measured here is the real A-rated utility bond yield over the average real utility dividend yield; (Line 19 - Line 17)
- ^f The spread being measured here is the nominal 20-Year Treasury yield over the average nominal utility dividend yield; (Line 14 - Line 12).
- ^g The spread being measured here is the real 20-Year TIPS yield over the average real utility dividend yield; (Line 15 - Line 17)

Dominion Energy Utah

Natural Gas Utilities (Valuation Metrics)

Line	Company	Dividend per Share ¹														
		14-Year														
		Average (1)	2019 ² (2)	2018 (3)	2017 (4)	2016 (5)	2015 (6)	2014 (7)	2013 (8)	2012 (9)	2011 (10)	2010 (11)	2009 (12)	2008 (13)	2007 (14)	2006 (15)
1	Atmos Energy	1.45	2.10	1.40	1.38	1.68	1.56	1.48	1.40	1.38	1.36	1.34	1.32	1.30	1.28	1.26
2	Chesapeake Utilities	0.99	1.55	1.01	0.96	1.19	1.12	1.07	1.01	0.96	0.91	0.87	0.83	0.81	0.78	0.77
3	New Jersey Resources	0.76	1.17	0.81	0.77	0.98	0.93	0.86	0.81	0.77	0.72	0.68	0.62	0.56	0.51	0.48
4	NISource Inc.	0.90	0.80	0.98	0.94	0.64	0.83	1.02	0.98	0.94	0.92	0.92	0.92	0.92	0.92	0.92
5	Northwest Nat. Gas	1.72	1.93	1.83	1.79	1.87	1.86	1.85	1.83	1.79	1.75	1.68	1.60	1.52	1.44	1.39
6	ONE Gas Inc.	1.36	2.00	N/A	N/A	1.40	1.20	0.84	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
7	South Jersey Inds.	0.80	1.20	0.90	0.83	1.06	1.02	0.96	0.90	0.83	0.75	0.68	0.61	0.56	0.51	0.46
8	Southwest Gas	1.26	2.18	1.32	1.18	1.80	1.62	1.46	1.32	1.18	1.06	1.00	0.95	0.90	0.86	0.82
9	Spire Inc.	1.69	2.37	1.70	1.66	1.96	1.84	1.76	1.70	1.66	1.61	1.57	1.53	1.49	1.45	1.40
10	UGI Corp.	0.70	1.12	0.74	0.71	0.93	0.89	0.79	0.74	0.71	0.68	0.60	0.52	0.50	0.48	0.46
11	WGL Holdings Inc.	1.59	N/A	1.66	1.59	1.93	1.83	1.72	1.66	1.59	1.55	1.50	1.47	1.41	1.37	1.35
12	Average	1.19	1.64	1.24	1.18	1.40	1.34	1.25	1.24	1.18	1.13	1.08	1.04	1.00	0.96	0.93
13	Industry Average Growth	4.91%	32.92%	4.67%	-15.92%	5.03%	6.50%	1.58%	4.67%	4.35%	4.34%	4.47%	4.20%	3.83%	3.13%	

Sources:

¹ The Value Line Investment Survey Investment Analyzer Software, downloaded on June 25, 2019.

² The Value Line Investment Survey, May 31, 2019.

Dominion Energy Utah

Natural Gas Utilities (Valuation Metrics)

Line	Company	Earnings per Share ¹													
		14-Year Average (1)	2019 ² (2)	2018 (3)	2017 (4)	2016 (5)	2015 (6)	2014 (7)	2013 (8)	2012 (9)	2011 (10)	2010 (11)	2009 (12)	2008 (13)	2007 (14)
1	Atmos Energy	2.73	4.30	4.00	3.60	3.38	2.96	2.50	2.10	2.26	2.16	1.97	2.00	1.94	2.00
2	Chesapeake Utilities	2.20	3.45	3.45	2.68	2.86	2.47	2.26	1.99	1.91	1.82	1.43	1.39	1.29	1.15
3	New Jersey Resources	1.53	2.05	2.72	1.73	1.61	2.08	1.37	1.36	1.29	1.23	1.20	1.35	0.78	0.93
4	NiSource Inc.	1.13	1.30	1.30	0.39	1.00	1.67	1.57	1.37	1.05	1.06	0.84	1.34	1.14	1.14
5	Northwest Nat. Gas	2.08	2.40	2.33	-1.94	2.12	2.16	2.24	2.22	2.39	2.73	2.83	2.57	2.76	2.35
6	ONE Gas Inc.	2.77	3.40	3.25	3.02	2.65	2.07	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
7	South Jersey Inds.	1.32	1.10	1.38	1.23	1.34	1.57	1.52	1.52	1.45	1.35	1.19	1.14	1.05	1.23
8	Southwest Gas	2.75	4.20	3.68	3.62	3.18	3.01	3.11	2.86	2.43	2.27	1.94	1.39	1.95	1.98
9	Spire Inc.	2.91	3.85	4.33	3.43	3.24	2.35	2.02	2.79	2.86	2.43	2.92	2.64	2.31	2.37
10	UGI Corp.	1.74	2.50	2.74	2.29	2.05	1.92	1.59	1.17	1.37	1.59	1.57	1.33	1.18	1.10
11	WGL Holdings Inc.	2.56	N/A	N/A	3.11	3.27	2.68	2.31	2.68	2.25	2.27	2.53	2.44	2.09	1.94
12	Average	2.11	2.86	2.92	2.11	2.43	2.27	2.05	2.01	1.93	1.89	1.84	1.76	1.65	1.62
13	Industry Average Growth	4.99%	-2.16%	38.59%	-13.26%	6.50%	10.67%	2.13%	4.13%	1.87%	2.61%	4.79%	6.67%	1.82%	

Sources:

- ¹ The Value Line Investment Survey Investment Analyzer Software, downloaded on June 25, 2019.
- ² The Value Line Investment Survey, May 31, 2019.

Dominion Energy Utah

Natural Gas Utilities (Valuation Metrics)

<u>Line</u>	<u>Company</u>	<u>Cash Flow / Capital Spending</u>				<u>3 - 5 yr Projection</u>
		<u>2017</u> (1)	<u>2018</u> (2)	<u>2019</u> (3)	<u>2020</u> (4)	
1	Atmos Energy	0.62x	0.55x	0.53x	0.54x	0.67x
2	Chesapeake Utilities	0.50x	0.39x	0.66x	0.68x	0.76x
3	New Jersey Resources	0.70x	0.85x	1.41x	1.44x	1.61x
4	NiSource Inc.	0.41x	0.58x	0.66x	0.70x	0.73x
5	Northwest Nat. Gas	0.14x	0.71x	0.77x	0.82x	1.02x
6	ONE Gas Inc.	0.87x	0.84x	0.78x	0.81x	1.01x
7	South Jersey Inds.	0.81x	0.73x	0.48x	0.55x	0.58x
8	Southwest Gas	0.68x	0.56x	0.62x	0.64x	0.65x
9	Spire Inc.	0.72x	0.77x	0.65x	0.62x	0.75x
10	UGI Corp.	1.29x	1.64x	1.33x	1.45x	1.52x
12	Average	0.68x	0.76x	0.79x	0.83x	0.93x
13	Median	0.69x	0.72x	0.66x	0.69x	0.76x

Sources:

The Value Line Investment Survey Investment Analyzer Software,
 downloaded on June 25, 2019.

The Value Line Investment Survey, May 31, 2019.

Notes:

Based on the projected Cash Flow per share and Capital Spending per share.

Dominion Energy Utah

Proxy Group

<u>Line</u>	<u>Company</u>	<u>Credit Ratings¹</u>		<u>Common Equity Ratios</u>	
		<u>S&P</u> (1)	<u>Moody's</u> (2)	<u>MI¹</u> (3)	<u>Value Line²</u> (4)
1	Atmos Energy Corporation	A	A2	56.7%	65.7%
2	New Jersey Resources Corporation ⁵	N/A	Aa3	49.4%	54.6%
3	Northwest Natural Holding Company	A+	Baa1	44.4%	51.9%
4	ONE Gas, Inc.	A	A2	56.3%	61.4%
5	South Jersey Industries, Inc.	BBB	N/A	28.9%	37.6%
6	Spire Inc.	A-	Baa2	46.1%	54.3%
7	Southwest Gas Holdings, Inc.	BBB+	Baa1	48.7%	51.7%
8	Average	A-	A3	47.2%	53.9%
9	Dominion Energy Utah	BBB+³	A2³		55%⁴

Sources:

¹ S&P Global Market Intelligence, Downloaded on October 3, 2019.

² *The Value Line Investment Survey*, August 30, 2019.

³ Hevert direct at 15.

⁴ Hevert direct at 2.

Note:

⁵ Credit Rating for subsidiary New Jersey Natural Gas Company used.

Dominion Energy Utah

Consensus Analysts' Growth Rates

<u>Line</u>	<u>Company</u>	<u>Zacks</u>		<u>MI</u>		<u>Yahoo! Finance</u>		<u>Average of Growth Rates (7)</u>
		<u>Estimated Growth %¹ (1)</u>	<u>Number of Estimates (2)</u>	<u>Estimated Growth %² (3)</u>	<u>Number of Estimates (4)</u>	<u>Estimated Growth %³ (5)</u>	<u>Number of Estimates (6)</u>	
1	Atmos Energy Corporation	6.70%	N/A	5.00%	1	7.00%	N/A	6.23%
2	New Jersey Resources Corporation	7.00%	N/A	6.00%	2	6.00%	N/A	6.33%
3	Northwest Natural Holding Company	4.50%	N/A	4.50%	2	4.00%	N/A	4.33%
4	ONE Gas, Inc.	5.90%	N/A	6.00%	2	5.00%	N/A	5.63%
5	South Jersey Industries, Inc.	6.60%	N/A	7.25%	2	4.60%	N/A	6.15%
6	Spire Inc.	4.40%	N/A	6.00%	1	3.23%	N/A	4.54%
7	Southwest Gas Holdings, Inc.	6.20%	N/A	6.50%	2	8.20%	N/A	6.97%
8	Average	5.90%	N/A	5.89%	2	5.43%	N/A	5.74%

Sources:

- ¹ Zacks, <http://www.zacks.com/>, downloaded on September 27, 2019.
² S&P Global Market Intelligence, https://platform.mi.spglobal.com, downloaded on September 27, 2019.
³ Yahoo! Finance, <https://finance.yahoo.com/>, downloaded on September 27, 2019.

Dominion Energy Utah

Constant Growth DCF Model (Consensus Analysts' Growth Rates)

<u>Line</u>	<u>Company</u>	<u>13-Week AVG Stock Price¹</u> (1)	<u>Analysts' Growth²</u> (2)	<u>Annualized Dividend³</u> (3)	<u>Adjusted Yield</u> (4)	<u>Constant Growth DCF</u> (5)
1	Atmos Energy Corporation	\$109.07	6.23%	\$2.10	2.05%	8.28%
2	New Jersey Resources Corporation	\$47.01	6.33%	\$1.17	2.65%	8.98%
3	Northwest Natural Holding Company	\$70.96	4.33%	\$1.90	2.79%	7.13%
4	ONE Gas, Inc.	\$91.12	5.63%	\$2.00	2.32%	7.95%
5	South Jersey Industries, Inc.	\$32.67	6.15%	\$1.15	3.73%	9.88%
6	Spire Inc.	\$84.09	4.54%	\$2.37	2.95%	7.49%
7	Southwest Gas Holdings, Inc.	\$89.89	6.97%	\$2.18	2.59%	9.56%
8	Average	\$74.97	5.74%	\$1.84	2.72%	8.47%
9	Median					8.28%

Sources:

¹ S&P Global Market Intelligence, Downloaded on October 3, 2019.

² FEA Exhibit 1.04.

³ *The Value Line Investment Survey*, August 30, 2019.

Dominion Energy Utah

Payout Ratios

<u>Line</u>	<u>Company</u>	<u>Dividends Per Share</u>		<u>Earnings Per Share</u>		<u>Payout Ratio</u>	
		<u>2018</u> (1)	<u>Projected</u> (2)	<u>2018</u> (3)	<u>Projected</u> (4)	<u>2018</u> (5)	<u>Projected</u> (6)
1	Atmos Energy Corporation	\$1.94	\$2.70	\$4.00	\$5.60	48.50%	48.21%
2	New Jersey Resources Corporation	\$1.11	\$1.33	\$2.74	\$2.50	40.51%	53.20%
3	Northwest Natural Holding Company	\$1.89	\$2.20	\$2.33	\$3.50	81.12%	62.86%
4	ONE Gas, Inc.	\$1.84	\$2.65	\$3.25	\$4.75	56.62%	55.79%
5	South Jersey Industries, Inc.	\$1.13	\$1.40	\$1.38	\$2.40	81.88%	58.33%
6	Spire Inc.	\$2.25	\$2.67	\$4.33	\$5.00	51.96%	53.40%
7	Southwest Gas Holdings, Inc.	\$2.08	\$2.60	\$3.68	\$5.80	56.52%	44.83%
8	Average	\$1.75	\$2.22	\$3.10	\$4.22	59.59%	53.80%

Source:
The Value Line Investment Survey, August 30, 2019.

Dominion Energy Utah

Sustainable Growth Rate

Line	Company	3 to 5 Year Projections										Sustainable	
		Dividends Per Share (1)	Earnings Per Share (2)	Book Value Per Share (3)	Book Value Growth (4)	ROE (5)	Adjustment Factor (6)	Adjusted ROE (7)	Payout Ratio (8)	Retention Rate (9)	Internal Growth Rate (10)	Growth Rate (11)	
1	Atmos Energy Corporation	\$2.70	\$5.60	\$56.05	5.51%	9.99%	1.03	10.26%	48.21%	51.79%	5.31%	13.71%	
2	New Jersey Resources Corporation	\$1.33	\$2.50	\$21.85	6.19%	11.44%	1.03	11.79%	53.20%	46.80%	5.52%	6.08%	
3	Northwest Natural Holding Company	\$2.20	\$3.50	\$29.40	2.17%	11.90%	1.01	12.03%	62.86%	37.14%	4.47%	7.97%	
4	ONE Gas, Inc.	\$2.65	\$4.75	\$47.90	4.27%	9.92%	1.02	10.12%	55.79%	44.21%	4.48%	5.70%	
5	South Jersey Industries, Inc.	\$1.40	\$2.40	\$20.00	6.18%	12.00%	1.03	12.36%	58.33%	41.67%	5.15%	8.98%	
6	Spire Inc.	\$2.67	\$5.00	\$54.20	4.02%	9.23%	1.02	9.41%	53.40%	46.60%	4.38%	5.85%	
7	Southwest Gas Holdings, Inc.	\$2.60	\$5.80	\$58.60	6.65%	9.90%	1.03	10.22%	44.83%	55.17%	5.64%	7.66%	
8	Average	\$2.22	\$4.22	\$41.14	5.00%	10.63%	1.02	10.88%	53.80%	46.20%	4.99%	7.99%	

Sources and Notes:

Cols. (1), (2) and (3): *The Value Line Investment Survey*, August 30, 2019.
 Col. (4): [Col. (3) / Page 2 Col. (2)] ^ (1/number of years projected) - 1.
 Col. (5): Col. (2) / Col. (3).
 Col. (6): [2 * (1 + Col. (4))] / (2 + Col. (4)).
 Col. (7): Col. (6) * Col. (5).
 Col. (8): Col. (1) / Col. (2).
 Col. (9): 1 - Col. (8).
 Col. (10): Col. (9) * Col. (7).
 Col. (11): Col. (10) + Page 2 Col. (9).

Dominion Energy Utah

Sustainable Growth Rate

<u>Line</u>	<u>Company</u>	<u>13-Week Average Stock Price¹</u> (1)	<u>2018 Book Value Per Share²</u> (2)	<u>Market to Book Ratio</u> (3)	<u>Common Shares Outstanding (in Millions)²</u> 2018 (4)	<u>3-5 Years Growth</u> (6)	<u>S Factor³</u> (7)	<u>V Factor⁴</u> (8)	<u>S * V</u> (9)
1	Atmos Energy Corporation	\$109.07	\$42.87	2.54	111.27	145.00	13.84%	60.69%	8.40%
2	New Jersey Resources Corporation	\$47.01	\$16.18	2.91	87.69	89.00	0.30%	65.58%	0.57%
3	Northwest Natural Holding Company	\$70.96	\$26.41	2.69	28.88	32.00	2.07%	62.78%	3.50%
4	ONE Gas, Inc.	\$91.12	\$38.86	2.34	52.57	55.00	0.91%	57.35%	1.22%
5	South Jersey Industries, Inc.	\$32.67	\$14.82	2.20	85.51	100.00	3.18%	54.64%	3.83%
6	Spire Inc.	\$84.09	\$44.51	1.89	50.67	55.00	1.65%	47.07%	1.47%
7	Southwest Gas Holdings, Inc.	\$89.89	\$42.47	2.12	53.03	58.00	1.81%	52.75%	2.02%
8	Average	\$74.97	\$32.30	2.38	67.09	76.29	5.19%	57.27%	3.00%

Sources and Notes:

- ¹ S&P Global Market Intelligence, Downloaded on October 3, 2019.
- ² *The Value Line Investment Survey*, August 30, 2019.
- ³ Expected Growth in the Number of Shares, Column (3) * Column (6).
- ⁴ Expected Profit of Stock Investment, [1 - 1 / Column (3)].

Dominion Energy Utah

Constant Growth DCF Model (Sustainable Growth Rate)

<u>Line</u>	<u>Company</u>	<u>13-Week AVG Stock Price¹</u> (1)	<u>Sustainable Growth²</u> (2)	<u>Annualized Dividend³</u> (3)	<u>Adjusted Yield</u> (4)	<u>Constant Growth DCF</u> (5)
1	Atmos Energy Corporation	\$109.07	13.71%	\$2.10	2.19%	15.90%
2	New Jersey Resources Corporation	\$47.01	6.08%	\$1.17	2.64%	8.72%
3	Northwest Natural Holding Company	\$70.96	7.97%	\$1.90	2.89%	10.86%
4	ONE Gas, Inc.	\$91.12	5.70%	\$2.00	2.32%	8.02%
5	South Jersey Industries, Inc.	\$32.67	8.98%	\$1.15	3.83%	12.81%
6	Spire Inc.	\$84.09	5.85%	\$2.37	2.98%	8.84%
7	Southwest Gas Holdings, Inc.	\$89.89	7.66%	\$2.18	2.61%	10.27%
8	Average	\$74.97	7.99%	\$1.84	2.78%	10.77%
9	Median					10.27%

Sources:

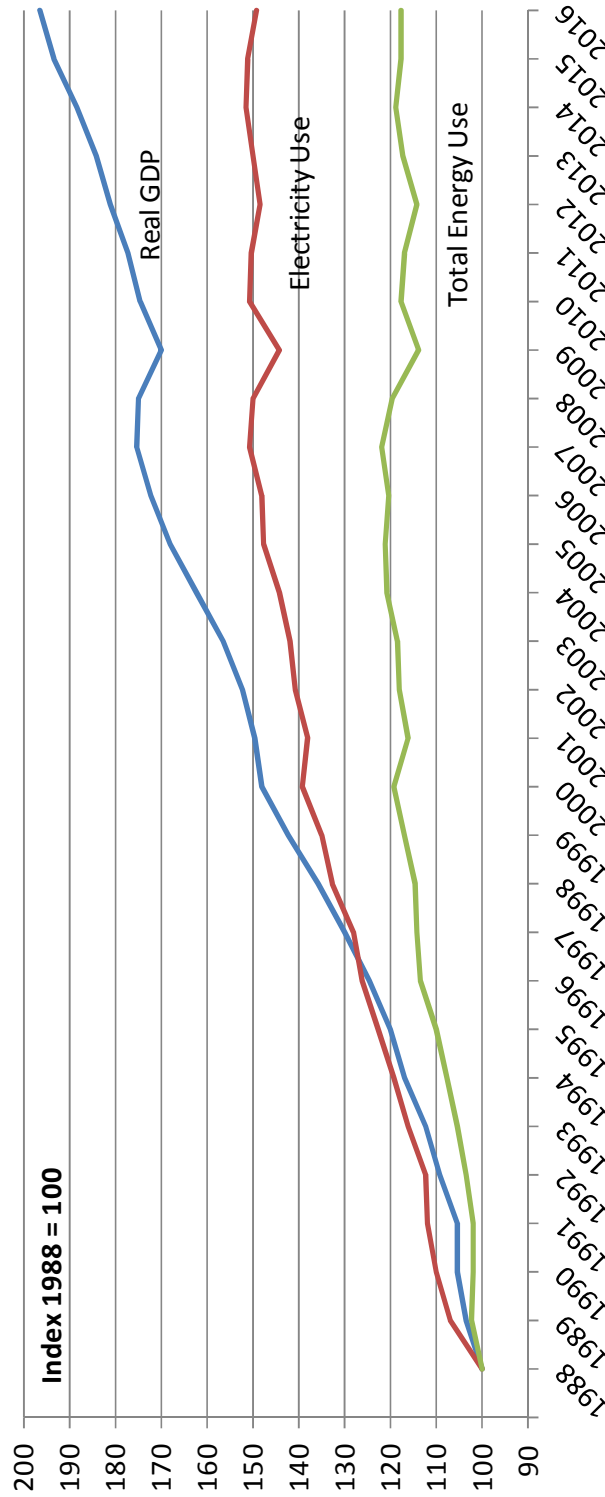
¹ S&P Global Market Intelligence, Downloaded on October 3, 2019.

² FEA Exhibit 1.07, Page 1.

³ *The Value Line Investment Survey*, August 30, 2019.

Dominion Energy Utah

Electricity Sales Are Linked to U.S. Economic Growth



Note:

1988 represents the base year. Graph depicts increases or decreases from the base year.

Sources:

U.S. Energy Information Administration
Federal Reserve Bank of St. Louis

Dominion Energy Utah

Multi-Stage Growth DCF Model

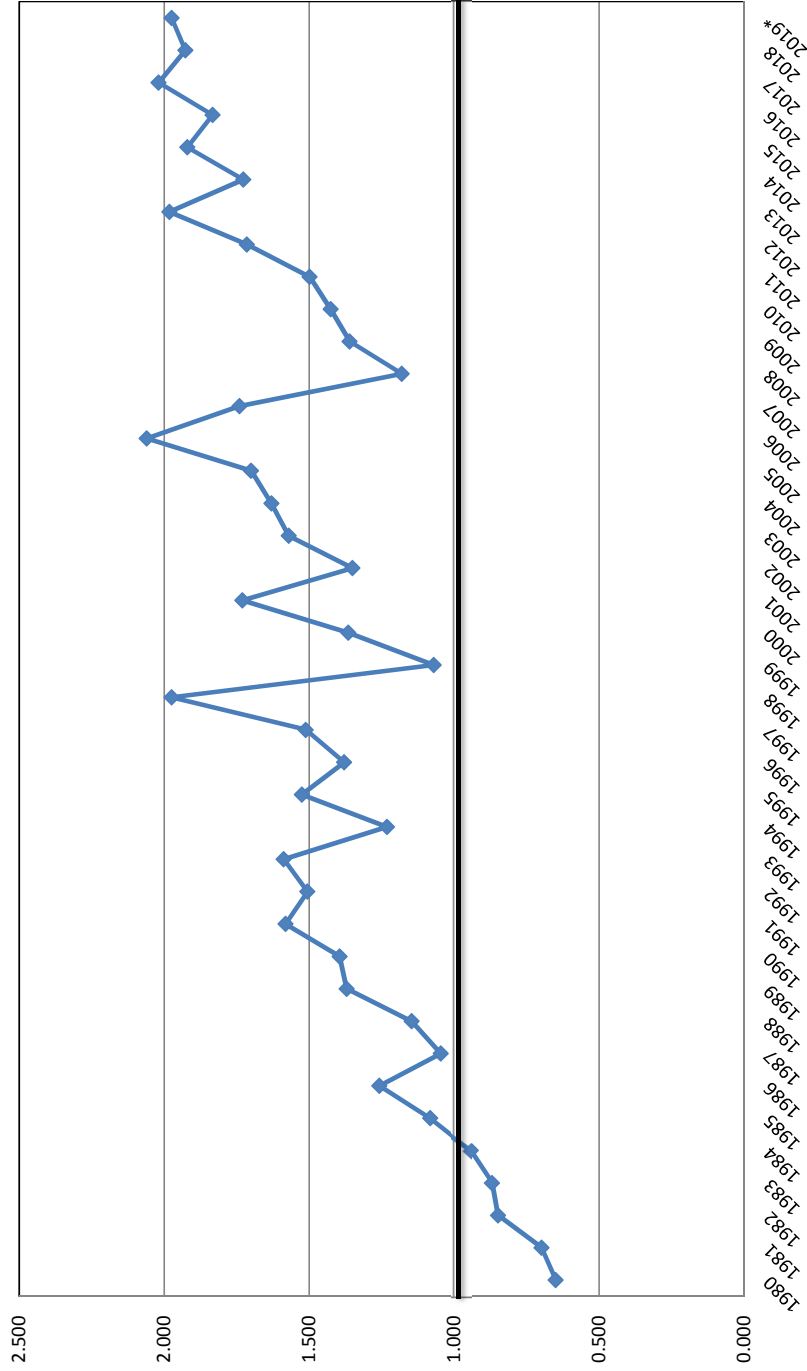
Line	Company	13-Week AVG Stock Price ⁽¹⁾	Annualized Dividend ⁽²⁾	First Stage Growth ⁽³⁾	Second Stage Growth					Third Stage Growth ⁽⁹⁾	Multi-Stage Growth DCF ⁽¹⁰⁾
					Year 6 (4)	Year 7 (5)	Year 8 (6)	Year 9 (7)	Year 10 (8)		
1	Atmos Energy Corporation	\$109.07	\$2.10	6.23%	5.88%	5.52%	5.17%	4.81%	4.46%	4.10%	6.38%
2	New Jersey Resources Corporation	\$47.01	\$1.17	6.33%	5.96%	5.59%	5.22%	4.84%	4.47%	4.10%	7.09%
3	Northwest Natural Holding Company	\$70.96	\$1.90	4.33%	4.29%	4.26%	4.22%	4.18%	4.14%	4.10%	6.92%
4	ONE Gas, Inc.	\$91.12	\$2.00	5.63%	5.38%	5.12%	4.87%	4.61%	4.36%	4.10%	6.61%
5	South Jersey Industries, Inc.	\$32.67	\$1.15	6.15%	5.81%	5.47%	5.13%	4.78%	4.44%	4.10%	8.26%
6	Spire Inc.	\$84.09	\$2.37	4.54%	4.47%	4.40%	4.32%	4.25%	4.17%	4.10%	7.11%
7	Southwest Gas Holdings, Inc.	\$89.89	\$2.18	6.97%	6.49%	6.01%	5.53%	5.06%	4.58%	4.10%	7.13%
8	Average	\$74.97	\$1.84	5.74%	5.47%	5.19%	4.92%	4.65%	4.37%	4.10%	7.07%
9	Median										7.09%

Sources:

- ¹ S&P Global Market Intelligence, Downloaded on October 3, 2019.
- ² The Value Line Investment Survey, August 30, 2019.
- ³ FEA Exhibit 1.04.
- ⁴ Blue Chip Financial Forecasts, June 1, 2019 at 14.

Dominion Energy Utah

Common Stock Market/Book Ratio



Source:

1980 - 2000: Mergent Public Utility Manual.

2001 - 2015: AUS Utility Reports, multiple dates.

2016 - 2018: Value Line Investment Survey, multiple dates.

* Value Line Investment Survey Reports, May 31, June 14, July 26, and August 16, 2019.

Dominion Energy Utah

Equity Risk Premium - Treasury Bond

<u>Line</u>	<u>Year</u>	<u>Authorized Gas Returns¹</u> (1)	<u>30 yr. Treasury Bond Yield²</u> (2)	<u>Indicated Risk Premium</u> (3)	<u>Rolling 5 - Year Average</u> (4)	<u>Rolling 10 - Year Average</u> (5)
1	1986	13.46%	7.80%	5.66%		
2	1987	12.74%	8.58%	4.16%		
3	1988	12.85%	8.96%	3.89%		
4	1989	12.88%	8.45%	4.43%		
5	1990	12.67%	8.61%	4.06%	4.44%	
6	1991	12.46%	8.14%	4.32%	4.17%	
7	1992	12.01%	7.67%	4.34%	4.21%	
8	1993	11.35%	6.60%	4.75%	4.38%	
9	1994	11.35%	7.37%	3.98%	4.29%	
10	1995	11.43%	6.88%	4.55%	4.39%	4.42%
11	1996	11.19%	6.70%	4.49%	4.42%	4.30%
12	1997	11.29%	6.61%	4.68%	4.49%	4.35%
13	1998	11.51%	5.58%	5.93%	4.73%	4.55%
14	1999	10.66%	5.87%	4.79%	4.89%	4.59%
15	2000	11.39%	5.94%	5.45%	5.07%	4.73%
16	2001	10.95%	5.49%	5.46%	5.26%	4.84%
17	2002	11.03%	5.43%	5.60%	5.45%	4.97%
18	2003	10.99%	4.96%	6.03%	5.47%	5.10%
19	2004	10.59%	5.05%	5.54%	5.62%	5.25%
20	2005	10.46%	4.65%	5.81%	5.69%	5.38%
21	2006	10.40%	4.90%	5.50%	5.70%	5.48%
22	2007	10.22%	4.83%	5.39%	5.66%	5.55%
23	2008	10.39%	4.28%	6.11%	5.67%	5.57%
24	2009	10.22%	4.07%	6.15%	5.79%	5.70%
25	2010	10.15%	4.25%	5.90%	5.81%	5.75%
26	2011	9.92%	3.91%	6.01%	5.91%	5.80%
27	2012	9.94%	2.92%	7.02%	6.24%	5.95%
28	2013	9.68%	3.45%	6.23%	6.26%	5.97%
29	2014	9.78%	3.34%	6.44%	6.32%	6.06%
30	2015	9.60%	2.84%	6.76%	6.49%	6.15%
31	2016	9.54%	2.60%	6.94%	6.68%	6.29%
32	2017	9.72%	2.90%	6.83%	6.64%	6.44%
33	2018	9.59%	3.11%	6.48%	6.69%	6.48%
34	2019 ³	9.63%	2.90%	6.74%	6.75%	6.53%
35	Average	10.94%	5.46%	5.48%	5.45%	5.45%
36	Minimum				4.17%	4.30%
37	Maximum				6.75%	6.53%

Sources:

¹ *Regulatory Research Associates, Inc.*, Regulatory Focus, Major Rate Case Decisions, Jan. 1997 p. 5, and Jan. 2011 p. 3.
S&P Global Market Intelligence, RRA Regulatory Focus, Major Rate Case Decisions, January- June 2019, July 22, 2019, p. 1
 2006 - 2019 Authorized Returns exclude limited issue rider cases.

² St. Louis Federal Reserve: Economic Research, <http://research.stlouisfed.org/>.

The yields from 2002 to 2005 represent the 20-Year Treasury yields obtained from the Federal Reserve Bank.

³ Data includes January - June, 2019.

Dominion Energy Utah

Equity Risk Premium - Utility Bond

<u>Line</u>	<u>Year</u>	<u>Authorized Gas Returns¹</u> (1)	<u>Average "A" Rated Utility Bond Yield²</u> (2)	<u>Indicated Risk Premium</u> (3)	<u>Rolling 5 - Year Average</u> (4)	<u>Rolling 10 - Year Average</u> (5)
1	1986	13.46%	9.58%	3.88%		
2	1987	12.74%	10.10%	2.64%		
3	1988	12.85%	10.49%	2.36%		
4	1989	12.88%	9.77%	3.11%		
5	1990	12.67%	9.86%	2.81%	2.96%	
6	1991	12.46%	9.36%	3.10%	2.80%	
7	1992	12.01%	8.69%	3.32%	2.94%	
8	1993	11.35%	7.59%	3.76%	3.22%	
9	1994	11.35%	8.31%	3.04%	3.21%	
10	1995	11.43%	7.89%	3.54%	3.35%	3.16%
11	1996	11.19%	7.75%	3.44%	3.42%	3.11%
12	1997	11.29%	7.60%	3.69%	3.49%	3.22%
13	1998	11.51%	7.04%	4.47%	3.64%	3.43%
14	1999	10.66%	7.62%	3.04%	3.64%	3.42%
15	2000	11.39%	8.24%	3.15%	3.56%	3.45%
16	2001	10.95%	7.76%	3.19%	3.51%	3.46%
17	2002	11.03%	7.37%	3.66%	3.50%	3.50%
18	2003	10.99%	6.58%	4.41%	3.49%	3.56%
19	2004	10.59%	6.16%	4.43%	3.77%	3.70%
20	2005	10.46%	5.65%	4.81%	4.10%	3.83%
21	2006	10.40%	6.07%	4.33%	4.33%	3.92%
22	2007	10.22%	6.07%	4.15%	4.43%	3.96%
23	2008	10.39%	6.53%	3.86%	4.32%	3.90%
24	2009	10.22%	6.04%	4.18%	4.27%	4.02%
25	2010	10.15%	5.47%	4.68%	4.24%	4.17%
26	2011	9.92%	5.04%	4.88%	4.35%	4.34%
27	2012	9.94%	4.13%	5.81%	4.68%	4.55%
28	2013	9.68%	4.48%	5.20%	4.95%	4.63%
29	2014	9.78%	4.28%	5.50%	5.22%	4.74%
30	2015	9.60%	4.12%	5.48%	5.38%	4.81%
31	2016	9.54%	3.93%	5.61%	5.52%	4.94%
32	2017	9.72%	4.00%	5.72%	5.50%	5.09%
33	2018	9.59%	4.25%	5.34%	5.53%	5.24%
34	2019 ³	9.63%	4.11%	5.52%	5.54%	5.38%
35	Average	10.94%	6.82%	4.12%	4.09%	4.06%
36	Minimum				2.80%	3.11%
37	Maximum				5.54%	5.38%

Sources:

¹ *Regulatory Research Associates, Inc.*, Regulatory Focus, Major Rate Case Decisions, Jan. 1997 p. 5, and Jan. 2011 p. 3. S&P *Global Market Intelligence*, RRA Regulatory Focus, Major Rate Case Decisions, January- June 2019, July 22, 2019, p. 1
 2006 - 2019 Authorized Returns exclude limited issue rider cases.

² Mergent Public Utility Manual, Mergent Weekly News Reports, 2003.
 The utility yields for the period 2001-2009 were obtained from the Mergent Bond Record.
 The utility yields from 2010-2017 were obtained from <http://credittrends.moody.com/>.

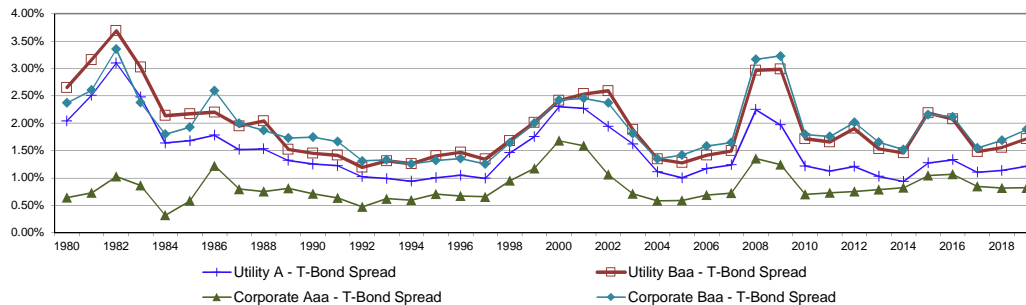
³ Data includes January - June, 2019.

Dominion Energy Utah

Bond Yield Spreads

Line	Year	T-Bond Yield ¹ (1)	Public Utility Bond				Corporate Bond				Utility to Corporate	
			A ² (2)	Baa ² (3)	A-T-Bond Spread (4)	Baa-T-Bond Spread (5)	Aaa ³ (6)	Baa ³ (7)	Aaa-T-Bond Spread (8)	Baa-T-Bond Spread (9)	Baa Spread (10)	A-Aaa Spread (11)
1	1980	11.30%	13.34%	13.95%	2.04%	2.65%	11.94%	13.67%	0.64%	2.37%	0.28%	1.40%
2	1981	13.44%	15.95%	16.60%	2.51%	3.16%	14.17%	16.04%	0.73%	2.60%	0.56%	1.78%
3	1982	12.76%	15.86%	16.45%	3.10%	3.69%	13.79%	16.11%	1.03%	3.35%	0.34%	2.07%
4	1983	11.18%	13.66%	14.20%	2.48%	3.02%	12.04%	13.55%	0.86%	2.38%	0.65%	1.62%
5	1984	12.39%	14.03%	14.53%	1.64%	2.14%	12.71%	14.19%	0.32%	1.80%	0.34%	1.32%
6	1985	10.79%	12.47%	12.96%	1.68%	2.17%	11.37%	12.72%	0.58%	1.93%	0.24%	1.10%
7	1986	7.80%	9.58%	10.00%	1.78%	2.20%	9.02%	10.39%	1.22%	2.59%	-0.39%	0.56%
8	1987	8.58%	10.10%	10.53%	1.52%	1.95%	9.38%	10.58%	0.80%	2.00%	-0.05%	0.72%
9	1988	8.96%	10.49%	11.00%	1.53%	2.04%	9.71%	10.83%	0.75%	1.87%	0.17%	0.78%
10	1989	8.45%	9.77%	9.97%	1.32%	1.52%	9.26%	10.18%	0.81%	1.73%	-0.21%	0.51%
11	1990	8.61%	9.86%	10.06%	1.25%	1.45%	9.32%	10.36%	0.71%	1.75%	-0.30%	0.54%
12	1991	8.14%	9.36%	9.55%	1.22%	1.41%	8.77%	9.80%	0.63%	1.67%	-0.25%	0.59%
13	1992	7.67%	8.69%	8.86%	1.02%	1.19%	8.14%	8.98%	0.47%	1.31%	-0.12%	0.55%
14	1993	6.60%	7.59%	7.91%	0.99%	1.31%	7.22%	7.93%	0.62%	1.33%	-0.02%	0.37%
15	1994	7.37%	8.31%	8.63%	0.94%	1.26%	7.96%	8.62%	0.59%	1.25%	0.01%	0.35%
16	1995	6.88%	7.89%	8.29%	1.01%	1.41%	7.59%	8.20%	0.71%	1.32%	0.09%	0.30%
17	1996	6.70%	7.75%	8.17%	1.05%	1.47%	7.37%	8.05%	0.67%	1.35%	0.12%	0.38%
18	1997	6.61%	7.60%	7.95%	0.99%	1.34%	7.26%	7.86%	0.66%	1.26%	0.09%	0.34%
19	1998	5.58%	7.04%	7.26%	1.46%	1.68%	6.53%	7.22%	0.95%	1.64%	0.04%	0.51%
20	1999	5.87%	7.62%	7.88%	1.75%	2.01%	7.04%	7.87%	1.18%	2.01%	0.01%	0.58%
21	2000	5.94%	8.24%	8.36%	2.30%	2.42%	7.62%	8.36%	1.68%	2.42%	-0.01%	0.62%
22	2001	5.49%	7.76%	8.03%	2.27%	2.54%	7.08%	7.95%	1.59%	2.45%	0.08%	0.68%
23	2002	5.43%	7.37%	8.02%	1.94%	2.59%	6.49%	7.80%	1.06%	2.37%	0.22%	0.88%
24	2003	4.96%	6.58%	6.84%	1.62%	1.89%	5.67%	6.77%	0.71%	1.81%	0.08%	0.91%
25	2004	5.05%	6.16%	6.40%	1.11%	1.35%	5.63%	6.39%	0.58%	1.35%	0.00%	0.53%
26	2005	4.65%	5.65%	5.93%	1.00%	1.28%	5.24%	6.06%	0.59%	1.42%	-0.14%	0.41%
27	2006	4.90%	6.07%	6.32%	1.17%	1.42%	5.59%	6.48%	0.69%	1.58%	-0.16%	0.48%
28	2007	4.83%	6.07%	6.33%	1.24%	1.50%	5.56%	6.48%	0.72%	1.65%	-0.15%	0.52%
29	2008	4.28%	6.53%	7.25%	2.25%	2.97%	5.63%	7.45%	1.35%	3.17%	-0.20%	0.90%
30	2009	4.07%	6.04%	7.06%	1.97%	2.99%	5.31%	7.30%	1.24%	3.23%	-0.24%	0.73%
31	2010	4.25%	5.47%	5.96%	1.22%	1.71%	4.95%	6.04%	0.70%	1.79%	-0.08%	0.52%
32	2011	3.91%	5.04%	5.57%	1.13%	1.66%	4.64%	5.67%	0.73%	1.76%	-0.10%	0.40%
33	2012	2.92%	4.13%	4.83%	1.21%	1.90%	3.67%	4.94%	0.75%	2.02%	-0.11%	0.46%
34	2013	3.45%	4.48%	4.98%	1.03%	1.53%	4.24%	5.10%	0.79%	1.65%	-0.12%	0.24%
35	2014	3.34%	4.28%	4.80%	0.94%	1.46%	4.16%	4.86%	0.82%	1.52%	-0.06%	0.12%
36	2015	2.84%	4.12%	5.03%	1.27%	2.19%	3.89%	5.00%	1.05%	2.16%	0.03%	0.23%
37	2016	2.60%	3.93%	4.67%	1.33%	2.08%	3.66%	4.71%	1.07%	2.12%	-0.04%	0.27%
38	2017	2.90%	4.00%	4.38%	1.10%	1.48%	3.74%	4.44%	0.85%	1.55%	-0.06%	0.26%
39	2018	3.11%	4.25%	4.67%	1.14%	1.56%	3.93%	4.80%	0.82%	1.69%	-0.13%	0.32%
40	2019 ⁴	2.90%	4.11%	4.61%	1.21%	1.71%	3.71%	4.78%	0.82%	1.89%	-0.17%	0.39%
41	Average	6.44%	7.93%	8.37%	1.49%	1.93%	7.28%	8.36%	0.84%	1.93%	0.01%	0.66%

Yield Spreads
 Treasury Vs. Corporate & Treasury Vs. Utility



Sources:

¹ St. Louis Federal Reserve: Economic Research, <http://research.stlouisfed.org/>.

² The utility yields for the period 1980-2009 were obtained from Mergent Public Utility Manual, Mergent Weekly News Reports, 2003.

The utility yields for the period 2001-2009 were obtained from the Mergent Bond Record.

The utility yields for the period 2010-2019 were obtained from <http://credittrends.moodys.com/>.

³ The corporate yields for the period 1980-2009 were obtained from the St. Louis Federal Reserve: Economic Research, <http://research.stlouisfed.org/>.

The corporate yields from 2010-2019 were obtained from <http://credittrends.moodys.com/>.

⁴ Data includes January - June, 2019.

Dominion Energy Utah

Treasury and Utility Bond Yields

<u>Line</u>	<u>Date</u>	<u>Treasury Bond Yield¹</u> (1)	<u>"A" Rated Utility Bond Yield²</u> (2)	<u>"Baa" Rated Utility Bond Yield²</u> (3)
1	09/27/19	2.13%	3.35%	3.68%
2	09/20/19	2.17%	3.41%	3.75%
3	09/13/19	2.37%	3.57%	3.92%
4	09/06/19	2.02%	3.24%	3.58%
5	08/30/19	1.96%	3.19%	3.53%
6	08/23/19	2.02%	3.23%	3.56%
7	08/16/19	2.01%	3.23%	3.55%
8	08/09/19	2.26%	3.38%	3.71%
9	08/02/19	2.39%	3.47%	3.81%
10	07/26/19	2.59%	3.68%	4.01%
11	07/19/19	2.57%	3.69%	4.18%
12	07/12/19	2.64%	3.76%	4.24%
13	07/05/19	2.54%	3.72%	4.19%
14	Average	2.28%	3.46%	3.82%
15	Spread To Treasury		1.18%	1.54%

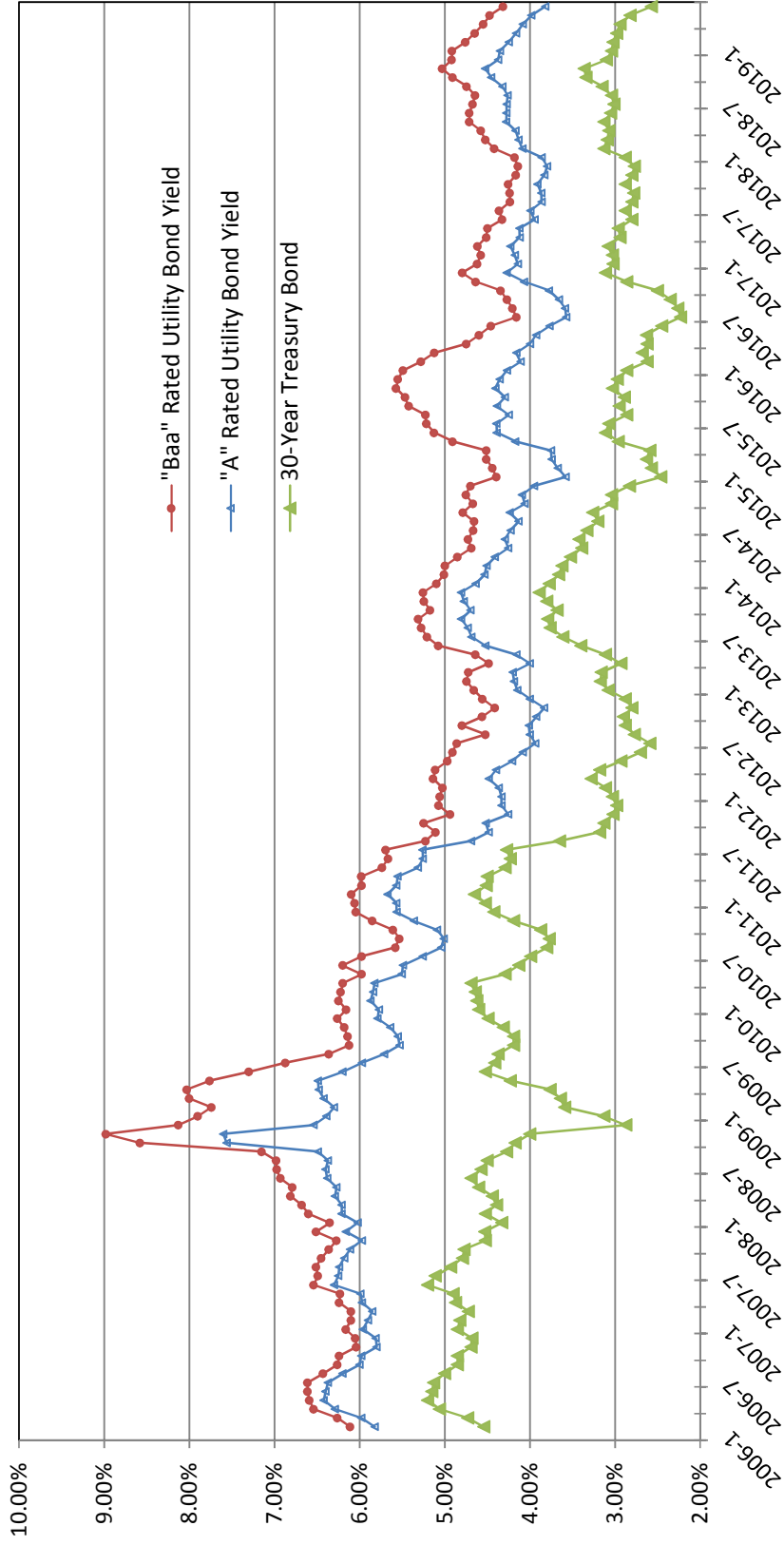
Sources:

¹ St. Louis Federal Reserve: Economic Research, <http://research.stlouisfed.org>.

² <http://credittrends.moody.com/>.

Dominion Energy Utah

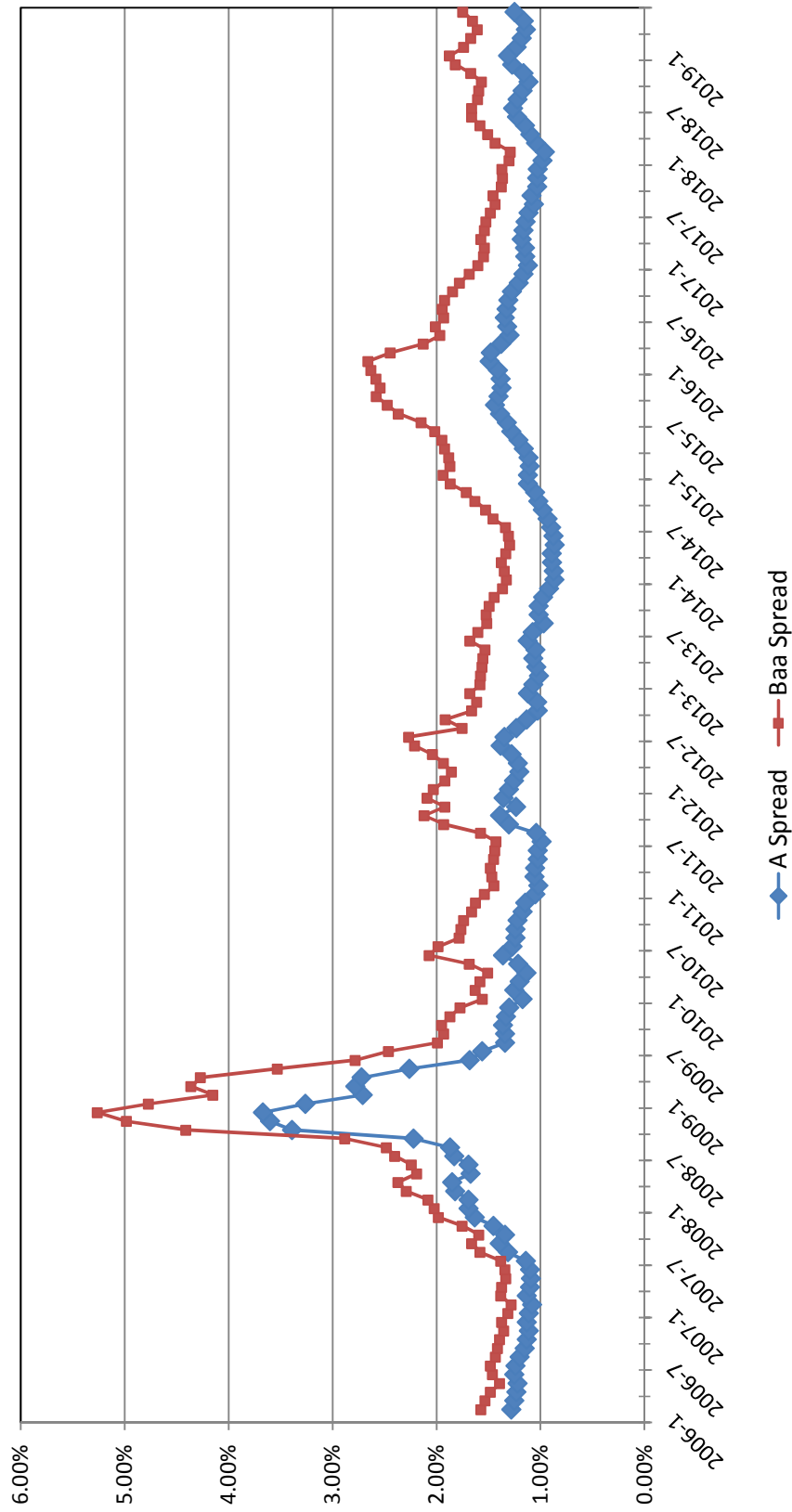
Trends in Bond Yields



Sources:
Mergent Bond Record.
www.moodys.com, Bond Yields and Key Indicators.
St. Louis Federal Reserve: Economic Research, <http://research.stlouisfed.org/>

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Yield Spread Between Utility Bonds and 30-Year Treasury Bonds



Sources:
Mergent Bond Record.
www.moodys.com, Bond Yields and Key Indicators.
St. Louis Federal Reserve: Economic Research, <http://research.stlouisfed.org/>

Dominion Energy Utah

Value Line Beta

<u>Line</u>	<u>Company</u>	<u>Beta</u>
1	Atmos Energy Corporation	0.60
2	New Jersey Resources Corporation	0.70
3	Northwest Natural Holding Company	0.60
4	ONE Gas, Inc.	0.65
5	South Jersey Industries, Inc.	0.80
6	Spire Inc.	0.65
7	Southwest Gas Holdings, Inc.	0.70
8	Average	0.67

Source:
The Value Line Investment Survey,
August 30, 2019.

Dominion Energy Utah

Historical Betas

Line	Company	Average (1)	2Q19 (2)	1Q19 (3)	4Q18 (4)	3Q18 (5)	2Q18 (6)	1Q18 (7)	4Q17 (8)	3Q17 (9)	2Q17 (10)	1Q17 (11)	4Q16 (12)	3Q16 (13)	2Q16 (14)	1Q16 (15)	4Q15 (16)	3Q15 (17)	2Q15 (18)	1Q15 (19)	4Q14 (20)	3Q14 (21)	
1	Atmos Energy Corporation	0.73	0.65	0.60	0.60	0.60	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.75	0.75	0.80	0.80	0.85	0.85	0.85	0.80	0.80	0.80
2	New Jersey Resources Corporation	0.78	0.70	0.70	0.70	0.70	0.80	0.75	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80
3	Northwest Natural Holding Company	0.67	0.60	0.65	0.60	0.65	0.70	0.65	0.70	0.70	0.65	0.65	0.65	0.65	0.65	0.65	0.65	0.70	0.70	0.70	0.70	0.70	0.70
4	ONE Gas, Inc.	0.68	0.65	0.65	0.65	0.65	0.70	0.70	0.70	0.70	0.70	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
5	South Jersey Industries, Inc.	0.82	0.80	0.85	0.80	0.75	0.85	0.80	0.85	0.85	0.80	0.80	0.80	0.80	0.80	0.85	0.80	0.85	0.85	0.80	0.80	0.80	0.80
6	Spire Inc.	0.69	0.65	0.65	0.65	0.65	0.70	0.65	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70
7	Southwest Gas Holdings, Inc.	0.78	0.70	0.70	0.70	0.75	0.80	0.75	0.80	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.80	0.80	0.85	0.85	0.85	0.85	0.85
8	Average	0.73	0.68	0.69	0.67	0.68	0.75	0.71	0.75	0.74	0.73	0.73	0.73	0.73	0.74	0.77	0.76	0.80	0.79	0.78	0.78	0.78	0.78

Source: Value Line Software Analyzer

Dominion Energy Utah

CAPM Return

<u>Line</u>	<u>Description</u>	<u>High Market Risk² Premium (1)</u>	<u>Low Market Risk² Premium (2)</u>
1	Risk-Free Rate ¹	2.50%	2.50%
2	Risk Premium ²	8.50%	6.00%
3	Historical Beta ³	0.73	0.73
4	CAPM	8.73%	6.90%

Sources:

¹ *Blue Chip Financial Forecasts*, October 1, 2019, at 2.

² *Duff & Phelps, 2019 SBBI Yearbook* at 6-17 and 6-18, and
Duff & Phelps, 2019 Valuation Handbook at 3-47 and 3-50.

³ FEA Exhibit 1.16, Page 2.

Dominion Energy Utah

Standard & Poor's Credit Metrics

Line	Description	Retail	S&P Benchmark (Medial Volatility)			Reference
		Cost of Service	Intermediate	Significant	Aggressive	
		Amount	(2)	(3)	(4)	(5)
		(1)				
1	Rate Base	\$ 1,816,213,951				DEU Exhibit 3.02.
2	Weighted Common Return	4.68%				Page 2, Line 2, Col. 3.
3	Pre-Tax Rate of Return	8.30%				Page 2, Line 3, Col. 4.
4	Income to Common	\$ 84,998,813				Line 1 x Line 2.
5	EBIT	\$ 150,795,283				Line 1 x Line 3.
6	Depreciation & Amortization	\$ 85,423,490				DEU Exhibit 3.02.
7	AFUDC Debt Interest	\$ (2,264,375)				Page 2, Line 9, Col. 1.
8	Deferred Income Taxes & ITC	\$ -				DEU Exhibit 3.02.
9	Funds from Operations (FFO)	\$ 168,157,927				Sum of Line 4 and Lines 6 through 8.
10	EBITDA	\$ 236,218,773				Line 5 + 6.
11	Total Adjusted Debt Ratio	50%				Page 2: Line 5 + Line 6, Col. 2
12	Debt to EBITDA	4.1x	2.0x - 3.0x	3.0x - 4.0x	4.0x - 5.0x	(Page 2: Line 5 + Line 6)/Line 10, Col. 1
13	FFO to Total Debt	17%	23% - 35%	13% - 23%	9% - 13%	Line 9 / (Page 2: Line 5 + Line 6), Col. 1
14	Indicative Credit Rating		AA	A	A-	S&P Methodology, November 19, 2013.

Sources:

Standard & Poor's: "Criteria: Corporate Methodology," November 19, 2013.

Note:

Based on the February S&P report, DEU has an "Excellent" business risk profile and a "Significant" financial risk profile, and falls under the 'Medial Volatility' matrix, and a BBB+ bond rating.

S&P Business/Financial Risk Profile Matrix			
Business Risk Profile	Financial Risk Profile		
	Intermediate	Significant	Aggressive
Excellent	a+/a	a-	bbb
Strong	a-/bbb+	bbb	bb+
Satisfactory	bbb/bbb-	bbb-/bb+	bb

Dominion Energy Utah

Standard & Poor's Credit Metrics (Pre-Tax Rate of Return)

<u>Line</u>	<u>Description</u>	<u>Weight</u> (1)	<u>Cost</u> (2)	<u>Weighted</u> <u>Cost</u> (3)	<u>Pre-Tax</u> <u>Weighted</u> <u>Cost</u> (4)
	<u>Regulatory¹</u>				
1	Long-Term Debt	48.00%	4.37%	2.10%	2.10%
2	Common Equity	<u>52.00%</u>	9.00%	<u>4.68%</u>	<u>6.21%</u>
3	Total	100.00%		6.78%	8.30%
4	Tax Conversion Factor ²				1.3259
	<u>Financial</u>				
5	Long-Term Debt	\$871,782,696	45.72%		
6	Short-Term Debt (CWIP)	\$90,575,015	4.75%		
7	Common Equity	<u>\$944,431,254</u>	49.53%		
8	Total	<u>\$1,906,788,966</u>	100.00%		
9	STD Interest (2.5%)	\$2,264,375			

Sources:

¹ FEA Exhibit 1.01, Page 1.

² DEU Exhibit 3.02.

Dominion Energy Utah

Constant Growth Discounted Cash Flow Model
30 Day Average Stock Price

Company	Ticker	[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10]	[11]
		Annualized Dividend	Average Stock Price	Dividend Yield	Expected Dividend Yield	Zacks Earnings Growth	First Call Earnings Growth	Value Line Earnings Growth	Retention Growth Estimate	Average Earnings Growth	Zacks Earnings Growth	First Call Earnings Growth
Atmos Energy Corporation	ATO	\$2.10	\$101.11	2.08%	2.16%	6.50%	6.45%	7.50%	10.09%	7.64%	8.71%	8.66%
Chesapeake Utilities Corporation	CPK	\$1.62	\$92.44	1.75%	1.82%	6.00%	6.00%	9.00%	10.63%	7.91%	7.86%	7.86%
New Jersey Resources Corporation	NJR	\$1.17	\$49.40	2.37%	2.43%	7.00%	6.00%	2.50%	5.48%	5.25%	9.53%	8.51%
Northwest Natural Holding Company	NWN	\$1.90	\$66.82	2.84%	2.99%	4.50%	4.00%	25.50%	6.42%	10.11%	7.47%	6.96%
ONE Gas, Inc.	OGS	\$2.00	\$87.48	2.29%	2.36%	5.90%	5.00%	9.00%	5.27%	6.29%	8.32%	7.40%
South Jersey Industries, Inc.	SJI	\$1.15	\$31.97	3.60%	3.73%	7.20%	5.90%	9.50%	7.05%	7.41%	11.06%	9.71%
Spire Inc.	SR	\$2.37	\$83.36	2.84%	2.91%	3.80%	2.82%	5.50%	5.85%	4.49%	6.75%	5.74%
Southwest Gas Corporation	SWX	\$2.18	\$82.86	2.63%	2.72%	6.20%	6.30%	8.50%	7.18%	7.04%	8.99%	9.10%
Proxy Group Mean				2.55%	2.64%	5.89%	5.31%	9.63%	7.25%	7.02%	8.59%	7.99%
Proxy Group Median				2.50%	2.58%	6.10%	5.95%	8.75%	6.73%	7.23%	8.52%	8.18%

Source: DEU Exhibit 2.01

Dominion Energy Utah

Constant Growth Discounted Cash Flow Model
90 Day Average Stock Price

Company	Ticker	[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10]	[11]
		Annualized Dividend	Average Stock Price	Dividend Yield	Expected Dividend Yield	Zacks Earnings Growth	First Call Earnings Growth	Value Line Earnings Growth	Retention Growth Estimate	Average Earnings Growth	Zacks Earnings Growth	First Call Earnings Growth
Atmos Energy Corporation	ATO	\$2.10	\$99.20	2.12%	2.20%	6.50%	6.45%	7.50%	10.09%	7.64%	8.75%	8.70%
Chesapeake Utilities Corporation	CPK	\$1.62	\$90.61	1.79%	1.86%	6.00%	6.00%	9.00%	10.63%	7.91%	7.90%	7.90%
New Jersey Resources Corporation	NJR	\$1.17	\$48.43	2.42%	2.48%	7.00%	6.00%	2.50%	5.48%	5.25%	9.59%	8.56%
Northwest Natural Holding Company	NWN	\$1.90	\$64.40	2.95%	3.10%	4.50%	4.00%	25.50%	6.42%	10.11%	7.58%	7.07%
ONE Gas, Inc.	OGS	\$2.00	\$85.70	2.33%	2.41%	5.90%	5.00%	9.00%	5.27%	6.29%	8.37%	7.45%
South Jersey Industries, Inc.	SJI	\$1.15	\$31.06	3.70%	3.84%	7.20%	5.90%	9.50%	7.05%	7.41%	11.17%	9.82%
Spire Inc.	SR	\$2.37	\$80.20	2.96%	3.02%	3.80%	2.82%	5.50%	5.85%	4.49%	6.87%	5.86%
Southwest Gas Corporation	SWX	\$2.18	\$81.30	2.68%	2.78%	6.20%	6.30%	8.50%	7.18%	7.04%	9.05%	9.15%
Proxy Group Mean				2.62%	2.71%	5.89%	5.31%	9.63%	7.25%	7.02%	8.66%	8.06%
Proxy Group Median				2.55%	2.63%	6.10%	5.95%	8.75%	6.73%	7.23%	8.56%	8.23%

Source: DEU Exhibit 2.01

Dominion Energy Utah

Constant Growth Discounted Cash Flow Model

180 Day Average Stock Price

Company	Ticker	[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10]	[11]
		Annualized Dividend	Average Stock Price	Dividend Yield	Expected Dividend Yield	Zacks Earnings Growth	First Call Earnings Growth	Value Line Earnings Growth	Retention Growth Estimate	Average Earnings Growth	Zacks Earnings Growth	First Call Earnings Growth
Atmos Energy Corporation	ATO	\$2.10	\$97.00	2.16%	2.25%	6.50%	6.45%	7.50%	10.09%	7.64%	8.81%	8.75%
Chesapeake Utilities Corporation	CPK	\$1.62	\$87.42	1.85%	1.93%	6.00%	6.00%	9.00%	10.63%	7.91%	7.96%	7.96%
New Jersey Resources Corporation	NJR	\$1.17	\$47.63	2.46%	2.52%	7.00%	6.00%	2.50%	5.48%	5.25%	9.63%	8.60%
Northwest Natural Gas Company	NWN	\$1.90	\$65.43	2.90%	3.05%	4.50%	4.00%	25.50%	6.42%	10.11%	7.53%	7.02%
ONE Gas, Inc.	OGS	\$2.00	\$83.74	2.39%	2.46%	5.90%	5.00%	9.00%	5.27%	6.29%	8.43%	7.51%
South Jersey Industries, Inc.	SJI	\$1.15	\$31.60	3.64%	3.77%	7.20%	5.90%	9.50%	7.05%	7.41%	11.10%	9.75%
Spire Inc.	SR	\$2.37	\$77.74	3.05%	3.12%	3.80%	2.82%	5.50%	5.85%	4.49%	6.96%	5.95%
Southwest Gas Corporation	SWX	\$2.18	\$80.58	2.71%	2.80%	6.20%	6.30%	8.50%	7.18%	7.04%	9.07%	9.18%
Proxy Group Mean				2.65%	2.74%	5.89%	5.31%	9.63%	7.25%	7.02%	8.69%	8.09%
Proxy Group Median				2.58%	2.66%	6.10%	5.95%	8.75%	6.73%	7.23%	8.62%	8.28%

Source: DEU Exhibit 2.01