Docket No. 19-057-02

Utah Office of Consumer Services Witness

Daniel J. Lawton

Exhibits OCS 3.1 through 3.14

October 17, 2019

BEFORE THE PUBLIC SERVICE COMMISSION OF UTAH

IN THE MATTER OF THE APPICATION OF DOMINION ENERGY UTAH TO INCREASE DISTRIBUTION RATES AND CHARGES AND MAKE TARIFF MODIFICATIONS	**§**	**Docket No. 19-057-02 Direct Rate of Return Testimony of Daniel J. Lawton For the Utah Office of Consumer Services**

October 17, 2019

Table of Contents

SECTION I: INTRODUCTION/BACKGROUND/SUMMARY……..……1

SECTION II: OVERVIEW OF COMPANY AND RATE REQUEST ISSUE SUMMARY……..5

SECTION III: REGULATORY ISSUES AND COST OF CAPITAL ……..6

SECTION IV: CURRENT CAPITAL MARKET CONDITIONS ……10

SECTION V: DEU BUSINESS RISKS AND THE UTAH REGULATORY PROCESS ……..15

SECTION VI: COMPARABLE GROUP ……..19

SECTION VII: COST OF CAPITAL MODELS DCF ANALYSES ……..20

SECTION VIII: BOND YIELD EQUITY RISK PREMIUM, CAPM, AND ECAPM ……26

SECTION IX: CAPITAL STRUCTURE ……..30

SECTION X: FINANCIAL INTEGRITY ……..34

SECTION XI: RESPONSIVE TESTIMONY TO ROBERT HEVERT ……..35

Exhibits

OCS-3.1…….. Resume
OCS-3.2 ……. Federal Reserve Press Release and Economic Projections September 2019
OCS-3.3 ……. Historical Monthly Government Bond Yields
OCS-3.4 ……. Comparable Gas Group Base Data
OCS-3.5 ……. Comparable Gas Group Price Data
OCS-3.6 ……. Comparable Gas Group Growth Rate Data
OCS-3.7 ……. Comparable Gas Group DCF
OCS-3.8 ……. Comparable Gas Group Two-Stage DCF
OCS-3.9 ……. Bond Yield and Equity Risk Premium Analysis
OCS-3.10 …….. Comparable Gas Group CAPM/ECAPM
OCS-3.11 …… Capital Structure DEU And Financial Metric Test For DEU
OCS-3.12 …….. DEU Responses to Discovery Requests OCS 1.40 and 1.41
OCS-3.13 …….. Work Papers of Daniel J. Lawton
OCS-3.14 …… Excel File Containing Work Papers of Daniel J. Lawton

DIRECT TESTIMONY OF
DANIEL J. LAWTON

SECTION I: INTRODUCTION/BACKGROUND/SUMMARY

Q. PLEASE STATE YOUR NAME AND BUSINESS ADDRESS.

A. My name is Daniel J. Lawton. My business address is 12600 Hill Country Boulevard, Suite R-275, Austin, Texas 78738.

Q. PLEASE DESCRIBE YOUR EDUCATIONAL BACKGROUND AND WORK EXPERIENCE.

A. I have been working in the utility consulting business as an economist since 1983. Consulting engagements have included electric utility load and revenue forecasting, cost of capital analyses, financial analyses, revenue requirements/cost of service reviews, and rate design analyses in litigated rate proceedings before federal, state and local regulatory authorities, and in court proceedings. I have worked with numerous municipal utilities developing electric rate cost of service studies for reviewing and setting rates. In addition, I have a law practice based in Austin, Texas. My main areas of legal practice include administrative law representing municipalities in electric and gas rate proceedings and other litigation and contract matters. I have included a brief description of my relevant educational background and professional work experience in Exhibit (OCS-3.1).

Q. HAVE YOU PREVIOUSLY FILED TESTIMONY IN RATE PROCEEDINGS?

A. Yes. A list of cases where I have previously filed testimony is included in Exhibit (OCS-3.1).

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

A. I have been retained to review the Dominion Energy Utah ("Company" or "DEU") cost of capital request, and related financial issues, on behalf of the Utah Office of Consumer Services ("OCS").

Q. WHAT IS THE PURPOSE OF YOUR TESTIMONY IN THIS PROCEEDING?

A. The purpose of my testimony in this proceeding is to address the Company's requested overall cost of capital for regulated gas operations. I will address the Company's requested overall rate of return to be earned on rate base investment, capital structure, and cost rates for equity capital and long-term debt, which is presented in the direct testimony of DEU cost of capital witness, Mr. Robert Hevert. In addition, I address the business risk and the Company's financial integrity, investment requirements, and cash flow issues related to return on invested capital.

Q. WHAT MATERIALS DID YOU REVIEW AND RELY ON FOR THIS TESTIMONY?

A. I have reviewed prior orders of the Public Service Commission of Utah ("Commission") the Company's current direct testimony, Company responses to discovery requests, Value Line Investment Survey ("Value Line"), financial reports of the Company, along with other utility companies of comparable risk and other financial information available in the public domain. When relying on various sources, I have referenced such sources in my testimony and/or attached Exhibits and included copies or summaries in my Exhibits and/or work papers.

Q. PLEASE SUMMARIZE YOUR FINDINGS AND CONCLUSIONS RELATED TO EQUITY RETURN IN THIS CASE.

A. My analysis of the Company's requested cost of equity capital in this proceeding, are shown in the following table:

TABLE 1

Cost of Equity Estimates[1]

MODEL	RANGE	MIDPOINT
DCF Model	**8.98% - 9.28%**	**9.13%**
Two-stage DCF	**8.55% - 9.25%**	**8.90%**
CAPM	**8.68% - 8.87%**	**8.78%**
ECAPM	**9.54% -9.68%**	**9.61%**
Bond Risk Premium	**8.99% - 9.07%**	**9.03%**
Average All Models		**9.09%**

Based on the model results an equity return of 9.1% is appropriate in this case. The 9.1% recommendation is based on the DCF and risk premium model results, and consideration of business and financial risks. All of these model results and risks considerations are discussed in the following pages. When the 9.1% equity return recommendation is combined with the Company's capital structure and debt cost rate projected at December 31, 2020, it results in a recommended return on rate base investment which I show in TABLE 2 below:

[1] Each cost of equity capital estimate is discussed in the testimony and is presented in Exhibits (OCS-3.7), (OCS-3.8), (OCS-3.9), and (OCS-3.10).

TABLE 2

Recommended Capital Structure and Cost Rates for

Dominion Energy Utah[2]

DESCRIPTION	RATIO	COST	WEIGHTED COST
LONG-TERM DEBT	45.00%	4.34%	1.953%
COMMON EQUITY	55.00%	9.10%	5.005%
TOTAL CAPITAL	100.00%		6.958%

As discussed below, in my opinion, these recommended return levels (9.1% equity return and 6.958% overall cost of capital) are consistent with current market capital costs in the utility industry and consistent with just and reasonable rates for consumers. My analyses of the Company's requested and Mr. Hevert's recommended 10.50% equity return and overall return request of 7.728% (see DEU witness Stephenson direct testimony at page 20) indicates that the Company's request is overstated and is not consistent with just and reasonable rates for consumers given current market capital costs.

Q. PLEASE SUMMARIZE YOUR FINDINGS AND CONCLUSIONS IN THIS CASE.

A. Based on my analyses (which are fully explained in the following pages), I make the following conclusions and recommendations:

(i) A return of 9.1% on shareholder equity is consistent with current market capital cost requirements and is more than adequate for the Company to maintain its financial integrity and creditworthiness;

(ii) The Company's cash flows and liquidity at an overall rate of return on rate base

[2] Capital structure per Direct Testimony of Jordan K. Stephenson.

investment of 6.958% is more than adequate to meet cash operating and construction requirements;

(iii) The Company's overall cost of capital, employing the Company's proposed capital structure and cost rates for debt and my recommended equity return of 9.1% for gas operations, to be earned on rate base investment should be set at 6.958% for setting just and reasonable rates for customers in this proceeding;

(iv) The Company's proposed 10.50% return for equity shareholders is an overstatement of the required return on equity to hold and attract equity capital; and

(v) The Company's proposed 7.73 overall return on investment is overstated and should not be adopted as representative of the Company's cost of capital requirements.

SECTION II: OVERVIEW OF THE COMPANY, RATE REQUEST, AND ISSUE SUMMARY

Q. PLEASE DESCRIBE THE REQUESTED RATE INCREASE.

A. The Company is requesting an annual increase in revenue requirements of $19.249 million.[3] The Company's case is based on a test period (projected) for the 12 months ending December 31, 2020 and includes an equity return or shareholder profit level of 10.50%.[4] The requested increase does not include additional revenue that is expected to be recovered in future years for infrastructure investment through a surcharge/tracker mechanism. Based on discovery in this proceeding the expected infrastructure capital investment through 2023 is expected to be $402.9 million.[5] Thus, in addition to any rate change in this proceeding there will be annual infrastructure additions to be recovered through the infrastructure tracker mechanism increasing the future rates of customers.

Projected capital investment for the period 2019 – 2023 is projected to be $1,373,670,658.[6] I discuss later the impact of capital investment on the Company's risks.

[3] DEU Exhibit 4.6, page 1 of 2, column B, line 53.
[4] DEU Exhibit 4.6, page 1 of 2, column B, line 59, *also see* Direct Testimony of witness Hevert at page 2, line 39.
[5] See DEU response to discovery request OCS 1.41, Exhibit (OCS-3.12).
[6] See DEU response to OCS 1.40 (included in Exhibit (OCS-3.12)).

Q. WHAT ARE THE ISSUES BEING ADDRESSED WITH REGARD TO EQUITY, RETURN, AND CAPITAL STRUCTURE?

A. The overall issue is what level of profits that DEU should be authorized to earn on rate base investment. The Company has requested an after-tax profit level on shareholder equity of 10.50% or about $104.886 million based on a requested rate base investment of $1.816 billion.[7] Reducing the requested return level by the approximate 50 basis points will reduce requested revenue requirements by about $6.322 million annually including tax impacts.

The Company's requested shareholder profit and return on investment is overstated in light of current market capital cost. The Company's failure to recognize these lower capital costs overstates the need for a rate increase in this case.

SECTION III: REGULATORY ISSUES AND COST OF CAPITAL

Q. PLEASE EXPLAIN THE COST OF CAPITAL CONCEPT AS IT RELATES TO THE REGULATORY PROCESS.

A. The overall rate of return to be earned on rate base investment is an essential element in the regulatory and rate setting process and is typically a major part of overall revenue requirements. For example, in this case the Company's requested overall return is 7.73%. As is discussed above, a 50-basis point change in rate of return on equity can have a large impact on overall revenue requirements, in this case about $6.322 million per year including tax gross-up factors.

Q. WHAT IS THE BREAKDOWN OF RETURN ON CAPITAL AND PROFIT BEING REQUESTED IN THIS CASE?

A. The overall return on rate base investment being requested in this case is shown in the following table.

[7] DEU Exhibit 4.6, page 1 of 2, column B, line 49.

TABLE 3[8]

Company Rate Base and Return

LINE NO.	DESCRIPTION	RATIO	COST RATE	WEIGHTED COST	WEIGHTED W/ FIT
1	Long-Term Debt	45.00%	4.34%	1.95%	1.95%
2	Common Equity	55.00%	10.50%	5.78%	7.31%
3	Total Capital	100.00%		7.728%	9.263%

LINE NO.	DESCRIPTION	CLAIMED RATE BASE	RETURN REQUIREMENT	RETURN & FIT REQUIREMENT
1	Long-Term Debt	$1,816,213,951	$35,470,658	$35,470,658
2	Common Equity	$1,816,213,951	$104,886,356	$132,767,539
3	Total Capital		$140,357,014	$168,238,197

As can be seen from the Table 3, the Company is requesting that rates be set to allow the Company to earn a 7.73% overall return on a claimed test year investment level of $1.816 billion, which translates into about $140.357 million of total return dollars. The total return dollars can be broken down to $35.470 million of interest return to cover claimed debt costs, and a Company request of $104.886 million of profit for shareholders.

It is important to note that the shareholder profit being requested is an after tax request. In other words, customers also must pay through rates a return on equity investment and income (state/federal/revenue related) taxes such that the $104.886 million profit request is available after all taxes are paid. Federal income taxes alone, at a 21% rate, adds about $27.9 million to gas customer rates.[9]

Q. PLEASE EXPLAIN HOW THE VARIOUS COMPONENTS OF COST OF CAPITAL ARE DETERMINED.

[8] Capital structure and cost rates per DEU Exhibit 3.0 Jordan Stephenson Direct Testimony at 20: 560, Rate Base per DEU Exhibit 4.06, page 1, line 49, column B Utah Jurisdiction.

[9] Tax Factor equal 1/(1-tax rate), which is (1/(1-.21)) equals 1.26582. This tax factor of 1.26582 times the requested shareholder profit level requested equals taxes and profits.

A. The overall rate of return in the regulatory process is best explained in two parts. First, return to senior securities, such as debt and preferred stock, both of which are included in the capital structure, are contractually set at issuance. The reasonableness of the cost of this contractual obligation between the utility and its investors is examined by regulatory agencies as part of the utility's overall revenue requirement.

The second part of a company's overall return requirement is the appropriate cost rate to assign the equity portion of capital costs. The return to equity should be established at a level that will permit the firm an opportunity to earn a fair rate of return. By fair rate of return, I mean a return to equity holders, which is sufficient to hold and attract capital, sufficient to maintain financial integrity, and a return to equity comparable to other investments of similar risks.

Two U.S. Supreme Court decisions are often cited as the legal standards for rate of return determination. The first is *Bluefield Water Works and Improvement Company v. Public Service Commission of West Virginia*, 262. U.S. 679 (1923). The *Bluefield* case established the following general standards for a rate of return: The return should be sufficient for maintaining financial integrity and capital attraction and a public utility is entitled to a return equal to that of investments of comparable risks.

The second U.S. Supreme Court decision is the *Federal Power Commission v. Hope Natural Gas Company*, 320 U.S. 591 (1942). In the *Hope* decision, the Court affirmed its earlier *Bluefield* standards and found that methods for determining return are not the test of reasonableness rather the result and impact of the result are controlling.

The cost of capital is defined as the annual percentage that a utility must receive to maintain its financial integrity, to pay a return to security owners and to ensure the continued attraction of capital at a reasonable cost and in an amount adequate to meet future needs. Mathematically, the cost of capital is the composite of the cost of several classes of capital used by the utility such as debt, preferred stock, and common stock, weighted on the basis of an appropriate capital structure.

The ratemaking process requires the regulator to determine the utility's cost of capital for debt, preferred stock and equity costs. These calculations of costs, when combined with the proportions of each type of capital in the capital structure, result in a percentage figure that is then multiplied by the value of assets (investment) used and useful in the production of the utility service to ultimately arrive at a rate charged to customers. Rates should not be excessive (exceed actual costs) or burdensome to the customer and at the same time should be just and reasonable to the utility.

Q. PLEASE EXPLAIN THE COST OF EQUITY CONCEPT.

A. The cost of equity, or return on equity capital, is the return expected by investors over some prospective time period. The cost of equity one seeks to estimate in this proceeding is the return investors expect prospectively when the rates from this case will be in effect.

The cost of common equity is not set by contract, and there are no hard and fast mathematical formulae with which to measure investor expectations with regard to equity requirements and perceptions of risk. As a result, any valid cost of equity recommendation must reflect investors' expectations of the risks facing a utility.

Q. WHAT PRINCIPAL METHODOLOGY DO YOU EMPLOY IN YOUR COST OF EQUITY CAPITAL ANALYSES?

A. I employ the Discounted Cash Flow ("DCF") methodology for estimating the cost of equity, keeping in mind the generally accepted premise that any utility's cost of equity capital is the risk free return plus the premium required by investors for accepting the risk of investing in an equity instrument. It is my opinion that the best analytical technique for measuring a utility's cost of common equity is the DCF methodology. I also employ the two-stage DCF to reflect different growth rate assumptions. Other return on equity modeling techniques such as the Capital Asset Pricing Model ("CAPM"), Empirical Capital Asset Pricing Model ("ECAPM"), and bond yield equity risk premium model are often used to check the reasonableness of the DCF results. I have employed all these modeling methods to arrive at my recommendations in this case.

Q. PLEASE DESCRIBE THE RISKS YOU REFER TO ABOVE.

A. As I stated earlier in this testimony, equity investors require compensation above and beyond the risk free return because of the increased risk factors investors face in the equity markets. Thus, investors require the risk free return plus some risk premium above the risk free return. The basic risks faced by investors that make up the equity risk premium include business risks, financial risks, regulatory risks, and liquidity risks.

SECTION IV: CURRENT CAPITAL MARKET CONDITIONS

Q. DO CURRENT ECONOMIC CONDITIONS WARRANT HIGHER RETURNS FOR UTILITY COMPANIES?

A. In my opinion, no. While the financial markets, and the economy in general, have experienced periods of uncertainty and turmoil since September 2008, government intervention has had and continues to have a positive impact on financial markets. Moreover, recent July and September 2019 Federal Reserve monetary policy announcements have signaled another move toward more accommodative monetary policy and continued low and lower interest rates.[10] The end result is that cost of capital today continues at a steady and historically[11] low level in terms of interest yields and equity costs.

The cost of capital continues at low levels as evidenced by a review of recent historical monthly bond yields shown in Exhibit (OCS-3.3) and the longer-term trend in historical annual bond yields shown in Exhibit (OCS-3.10). Also, as demonstrated by the declining trend in authorized equity returns set by regulatory authorities around the country, authorized equity costs are declining (as also shown in Exhibit (OCS-3.10)). Further, as shown in Exhibit (OCS-3.3) monthly bond yields have trended downward since November 2018. On July 31, 2019 the Federal Reserve Federal Open Market Committee ("FOMC") announced it had lowered the Federal Funds rate by a quarter point.[12] Following nine quarter point increases in the Federal Funds rate since 2015 this July 31, 2019 quarter point

[10] Board of Governors of the Federal Reserve System, FOMC Statement Press Release July 31 19, 2019 and September 18, 2019, www.federalreserve.gov/newsevents/press/monetary//2019 also see Exhibit (OCS-3.2) where the press releases are included.
[11] Where the historical period is measured over approximately 40 years from 1980 to the present.
[12] FOMC Press Release July 31, 2019, See Exhibit (OCS-3.13) at page 82, also see https://federalreserve.gob/newsevents/pressreleases/monetary20190918a.htm

cut is the first reduction to the Federal Funds rate since 2008. As I discuss below the FOMC reduced the federal funds rate another quarter point on September 18, 2019. Taken together this information shows capital costs are low, will remain low for the foreseeable future, and may decline further from current low levels. Certainly, there is no market evidence suggesting capital costs are increasing.

Q. ARE ECONOMIC CONDITIONS EXPECTED TO SHOW CONTINUED GROWTH IN THE 2019 - 2020 PERIOD?

A. Yes, but slowly. Forecasts are for continued, but slowed economic growth. Economic conditions in the first quarter of 2019, when compared to the end of 2008, are much improved. But, as noted in the September 18, 2019 Federal Reserve Press Release: "…since the Federal Open Market Committee met in July … the labor market remains strong and that economic activity has been rising at a **moderate rate**."[13] (Emphasis added) But, the FOMC statement goes on to state: "…[a]lthough household spending has been rising at a strong pace, **business fixed investment and exports have weakened**."[14] (emphasis added) The recent cuts in Federal Funds rates reflect continuing concerns related to economic growth domestically and internationally. The Federal Reserve Board members and Federal Reserve Bank presidents also released the most recent Summary of Economic Projections following the September 18, 2019 Federal Reserve, FOMC meetings.

I have included in Exhibit (OCS-3.2) these recent FOMC economic projections. The range of projections of GDP growth for the longer run time horizon is 1.7- 2.1%, which is a slight decrease from earlier, March 2019 estimates. The current projections of unemployment and inflation levels are similar to the earlier March 2019 estimates for 2019-2020.

Thus, while GDP growth continues in the U.S. economy, the growth in economic activity is slower than earlier projected and the Federal Reserve has once again maintained its projections of GDP growth at lower levels. In addition, the recent reduction in the federal funds rate and the early end of quantitative tightening is a signal that the FOMC sees slow growth concerns in the future and the FOMC recent actions are an attempt to enhance

[13] FOMC Press Release September 18, 2019 at page 1. See Exhibit (OCS-3.2).
[14] FOMC Press Release September 18, 2019 at page 1. See Exhibit (OCS-3.2).

economic activity and future growth.

Q. DOES THE FEDERAL RESERVE CONTINUE TO TARGET A LOW FEDERAL FUNDS RATE AS PART OF ITS MONETARY POLICY?

A. Yes, especially after the FOMC recent federal funds rate reduction on July 31, 2019 and September 18, 2019. From December 2008 until December 2015, the federal funds targeted rate, by the FOMC of the Federal Reserve, has been between 0 and .25 percent – essentially zero. Since December 2015, the federal funds rate has been increased nine times up to the early July 2019 level or target range of 2.25 - 2.50 percent.[15] Then, on July 31, 2019 the Federal Reserve announced a quarter point reduction to a target range of 2.0% to 2.25% for the federal funds rate.[16] Then on September 18, 2019 the Federal Reserve announced a second quarter point reduction to the target range of 1.75% to 2.0% for the federal funds rate. Some members of the FOMC and other market observers continue to suggest even lower federal funds rates before the end of 2019.

Since the 2008 through about the December 2015 period, the Federal Reserve policy has been to **maintain low interest rates** as part of the accommodative monetary policy to enhance GDP growth. While recent history has seen many analysts predict a Federal Reserve policy change at every Federal Reserve policy meeting, such predictions have been woefully inaccurate. Now, we are starting to see a resumption of interest rate cuts and more are projected for the future. Thus, I expect capital costs to remain low and possibly decrease slightly from current levels in the foreseeable future.

Q. DO THE RECENT FEDERAL RESERVE POLICY ACTIONS PROVIDE YOU ANY INSIGHT AS TO THE DIRECTION AND LEVEL OF LONGER-TERM INTEREST RATES?

A. Monetary policy objectives of the Federal Reserve are designed to stimulate economic growth and employment while targeting inflation at levels of about 2.0%. As discussed above the FOMC September 18, 2019 press release addressed the Federal Reserve's

[15] Federal Reserve Press release June 19, 2019. Available at: https://www.federalreserve.gov/newsevents/pressreleases/monetary20190619a.htm
[16] Federal Reserve Press release July 31, 2019 also see Exhibit (OCS-3.13) at page 82.

concerns with increased uncertainties, which implies that short-term rates will remain low and low levels are expected to prevail in the long run for some time in an effort to provide further economic stimulus. As stated earlier, following the September 18, 2019 FOMC meetings, there is an expectation of potential for further Federal Funds rate decreases before year end 2019.

The market evidence provided in Exhibit (OCS-3.3) shows recent declining monthly trends (since November 2018) in monthly interest yields. Thus, the Federal Reserve stated policy of continued lower interest rates is reflected in market results. The Federal Reserve actions continue efforts to maintain lower interest rates in an effort to promote a higher level of GDP growth and maintain employment levels. The evidence of declining capital costs and lower interest rates in the marketplace all indicate it is reasonable to expect continued low and possibly declining yields for the foreseeable near-term future.

The declining interest rate trend is not a new trend. The downward trend is significant and consistent for U.S. Treasury bonds and the declining trends for equity returns have been consistent for a number of years, but at a slower rate of decline. The long-term declining trend in gas utility capital costs is shown in the annual historical data presented in Exhibit (OCS-3.10).

Q. WHAT LEVEL OF INTEREST RATES DO YOU EMPLOY FOR YOUR COST OF CAPITAL ANALYSIS?

A. I employ the most current three-month average as the best approximation of interest rate levels. In my opinion, the most recent three months of activity adequately captures the levels and trends of interest rates while avoiding any limited influences those monthly or shorter durations may have on interest rates. Given the two recent cuts in the Federal Funds rate and the expectation of at least one additional cut by year end, I also considered more recent September 2019 yields of **2.0%** for the 30-year U.S. Treasury bond to capture the impacts from the most recent change in Federal Reserve policy.

Q. WHAT DO THE FEDERAL RESERVE'S MOST RECENT ECONOMIC ASSESSMENTS INDICATE REGARDING GROWTH?

A. I discussed earlier the current estimates of the FOMC that reflect moderate GDP growth in the remainder of 2019 and 2020. Generally, economic growth both domestically and internationally is slower than expected. The Federal Reserve response is to maintain the federal funds rate at lower levels than expected to prevail in the long run.

Economic projections from the Federal Reserve meeting in September 2019 indicate a long-term range of GDP growth in the 1.9% range.[17] The current continuation of accommodative monetary policy is viewed as an attempt to improve GDP growth, which has lagged many expectations following the 2017 Tax Cut and Jobs Act ("TCJA").

It is important to note that the recent Federal Reserve estimates and projections are supported by recent forecasts in the Livingston Survey.[18] The June 2019 Livingston Survey estimates GDP growth for the second half of 2019 at 2.3% and declining for the year 2020 to the 1.9% range.[19] The forecast of government bond rate yields are expected to decline about 100 basis points from forecasted levels just six months prior.[20] Thus, private forecasting groups (that participate in the Livingston Survey) are estimating the same low levels of capital costs and low economic growth as the Federal Reserve.

Q. WHAT CONCLUSIONS DO YOU DRAW FROM CURRENT ECONOMIC CONDITIONS IN PROVIDING GUIDANCE IN SETTING EQUITY CAPITAL COSTS IN THIS PROCEEDING?

A. As a general matter capital costs remain low in comparison to historical levels. Current September 2019 30-year U.S. Treasury Bonds are at 2.0%. Average authorized equity returns for gas utilities have trended downward with other declining capital costs as shown in Exhibit (OCS-3.10). The continued modest economic growth will cause general investor expectations of growth to continue to be moderate. The bottom line is that the general economic data does not support increasing capital costs. Most significant is that since 2013

[17] See Federal Reserve September 18, 2019 Economic Projections in Exhibit (OCS-3.2)
[18] The Livingston Survey is the oldest continuous survey of economist's economic expectations, published twice per year (June and December), included in the work papers of Mr. Lawton in Exhibit (OCS-3.13) at page 128. Also see www.philadelphiafed.org
[19] The Livingston Survey June 2019 at 1. www.philadelphiafed.org. Included in Exhibit (OCS-3.13) at page 128.
[20] The Livingston Survey June 2019 at 2. www.philadelphiafed.org. Included in Exhibit (OCS-3.13) at page 129.

when the Company's equity return was established at 9.85%, average authorized equity costs have declined to about 9.59%. The market facts do not support the Company claims that the DEU equity return should be increased to 10.50% in this case.

Q. HAVE REGULATORY AUTHORITIES AROUND THE COUNTRY RECOGNIZED THE DECLINING COST OF EQUITY AND DEBT CAPITAL IN SETTING RATES?

A. Absolutely. Many regulatory authorities have established equity returns below 10%. The average authorized equity return for gas utility companies has been below 10% since 2011.[21] Regulatory authority cost of equity decisions for gas utility rate cases for calendar year 2018 averaged about 9.59% for these gas utilities.[22] In addition, the average allowed equity ratio for gas utility operations was 51.47% in 2018.[23] These recent approved equity returns and equity ratios are substantially below the current DEU requested 10.50% equity return with a 55% equity ratio. Moreover, the authorized gas utility equity returns have remained at the low end of a long-term declining trend resulting largely from declining interest rates. Given current capital market levels and trends, now is not the time to be increasing the cost of capital for a regulated utility.

SECTION V: <u>DEU AND THE UTAH REGULATORY PROCESS</u>

Q. DOES THE REGULATORY PROCESS IN UTAH AFFORD DEU RISK-REDUCING OPPORTUNITIES?

A. Yes. Utah provides a supportive regulatory framework. The Company is able to employ a forecasted test year in setting rates that minimizes the impact of regulatory lag. By employing a forecasted test period future expected cost changes are included in the rate calculus without the need of future filings to recover cost changes. This future test year allows for enhanced cost recovery for the utility.

[21] See Exhibit (OCS-3.10)
[22] American Gas Association, "Rate & Regulatory Update" (January 1, 2019 – March 31, 2019) at 1, *also see* Exhibit (OCS-3.13) at page 41.
[23] American Gas Association, "Rate & Regulatory Update" (January 1, 2019 – March 31, 2019) at 1. Exhibit (OCS-3.13) at page 41.

Also, the Company has the advantage of a revenue decoupling mechanism and weather normalization adjustment, which help stabilize cash flow regardless of changes in customer usage. As pointed out by Moody's Investor Services: "Importantly, the decoupling mechanism also helps Questar Gas to recover its fixed charges in a flat to declining demand environment, which mitigates volume risk."[24]

A third mechanism is the Company's Infrastructure Tracker mechanism ("Tracker"), which currently authorizes recovery of system distribution investments once completed and outside of a general rate case. On this mechanism Moody's points out: "This will be particularly helpful as the company makes capital expenditures associated with a multi-year high-pressure natural gas feeder-line replacement program. … the rider will accelerate the recovery of this investment and help to maintain a stronger financial profile than would otherwise be possible."[25]

Such rate mechanisms reduce the Company's risks through enhancing cash flow and improving the timing of cost expenditure recovery. DEU has lower risk due to these mechanisms. I would note that many gas companies and some electric utilities have similar mechanisms, thus the Company's risks relative to the proxy gas companies are similar in terms of regulatory mechanisms that enhance cash flow and reduce regulatory lag.

Q. PLEASE EXPLAIN REGULATORY LAG AND HOW IT IMPACTS RATE SETTING AND REGULATORY RISK.

A. Regulatory lag is the period of time it takes to adjust tariffs in a rate case proceeding. Generally, it is the time between the utility rate request or the realization of a needed rate adjustment and the ultimate authorization of a rate change. For example, a utility requesting a rate increase of $1 million based on an historical test year may claim earnings erosion due to the regulatory lag during the pendency of the rate process until the authorized increase is implemented. Also, a utility that receives a rate adjustment may

[24] Moody's Investor Services, "Questar Gas Company, Update to Credit Analysis" (January 30, 2019) at 2. Exhibit (OCS-3.13) at page 32.
[25] Moody's Investor Services, "Questar Gas Company, Update to Credit Analysis" (January 30, 2019) at 3. Exhibit (OCS-3.13) at page 32.

assert regulatory lag if it finds its unit costs are higher than the cost levels upon which the rate adjustment was based.

The counter argument to these claims of regulatory lag and risks is that the utility controls the timing of its rate requests. Also, regulatory lag is built into the regulatory process to encourage the utility to control and monitor costs as a means of managing costs and bolstering profits. Regulatory lag can work both ways – sometimes there is earnings erosion while other times there can be excess earnings.

Other contributions to regulatory lag are increasing costs, inflation, increasing capital investments and lower growth and sales. I have discussed three mechanisms in Utah that address regulatory lag issues: (i) forecasted test year, (ii) decoupling and weather normalization, and (iii) Infrastructure Replacement Tracker. For example, the test year (in this case the 12 months ended December 31, 2020) affords DEU the opportunity to capture future expected changes in this rate proceeding. Second, revenue decoupling assures revenue recovery and prevents earnings erosions resulting from economic and atypical weather influences on utility sales. Third, the aforementioned Tracker limits the Company's gas operation risk to certain plant additions. The regulatory process in Utah provides the Company ample opportunity to earn its authorized return by reducing regulatory lag in the rate process. Moreover, rating agencies such as Moody's refer to the regulatory process in Utah as a "supportive regulatory environment with key cost recovery features."[26]

Q. HAVE RATING AGENCIES WEIGHED IN WITH REGARD TO THE RISKS AND EXPECTATIONS OF THE COMPANY?

A. Yes. I have discussed above how Moody's views the regulatory mechanisms and supportive regulatory process. Moody's also notes additional Commission regulatory support in January 2019 for approval to increase the Company's capital structure above the

[26] Moody's Investor Services, "Questar Gas Company, Update to Credit Analysis" (January 30, 2019) at 3. See Exhibit (OCS-3.13) at page 32.

previously Commission Ordered equity cap of 55%.[27] Moody's notes how this extension of the equity cap will enhance Company financial metrics.[28]

A Standard & Poor's ("S&P") February 26, 2018 credit research report for the Company which evaluates DEU based on the consolidated credit profile of the parent company Dominion Energy, Inc.[29] S&P points out that its negative outlook for the Company reflects the parent Dominion Energy, Inc.'s weak financials.[30]

S&P views DEU on a stand-alone basis as: "…low-risk regulated natural gas distribution business, above average size, and its effective management of regulatory risk."[31] The bottom line is that DEU is a low risk utility. The financial drag on the Company is the impact of the parent Dominion Energy, Inc.'s weak financials and substantial debt.

Q. DOES THE COMPANY FACE ANY UNUSUAL BUSINESS OR FINANCIAL RISK?

A. No. If anything risks have declined with cost recovery through the credit supportive mechanisms implemented in Utah. In terms of expected capital expansion and investment the Company asserts capital spending of $1.373 billion is required over the 2019 to 2023 period.[32] First, approximately, 30%, or $403 million of this investment will be recovered through the infrastructure tracker. Second, depreciation a non-cash expense provides capital recovery amounts of about $85.4 million annually or $427 million over the five-year 2019-2023 investment period. This leaves about $110 million per year of investment requirements that exceed tracker and depreciation. An investment requirement of $110 million per year given an asset base of $1.8 billion is not a large or risky investment requirement. I discuss this investment issue in more detail in Section XI of this testimony.

---

[27] Moody's Investor Services, "Questar Gas Company, Update to Credit Analysis" (January 30, 2019) at 3.
[28] Moody's Investor Services, "Questar Gas Company, Update to Credit Analysis" (January 30, 2019) at 3.
[29] S&P Global Ratings, "Questar Gas Co. Ratings Affirmed, Stand-Alone Credit Profile Revised To "a-" On Tax Reform; Outlook Remains Negative" (February 26, 2018) at 2. See Exhibit (OCS-3.13) at page 37.
[30] S&P Global Ratings, "Questar Gas Co. Ratings Affirmed, Stand-Alone Credit Profile Revised To "a-" On Tax Reform; Outlook Remains Negative" (February 26, 2018) at 2. See Exhibit (OCS-3.13) at page 37.
[31] S&P Global Ratings, "Questar Gas Co. Ratings Affirmed, Stand-Alone Credit Profile Revised To "a-" On Tax Reform; Outlook Remains Negative" (February 26, 2018) at 3. See Exhibit (OCS-3.13) at page 37.
[32] See Direct testimony Robert Hevert at page 28, lines 512-513, also see DEU Response to OCS 1.40 (see Exhibit (OCS-3.12) containing DR responses).

SECTION VI: COMPARABLE GROUP ANALYSIS

Q. PLEASE EXPLAIN AND DESCRIBE THE STARTING POINT OF YOUR COST OF CAPITAL ANALYSIS FOR THIS CASE.

A. The first step for any cost of equity capital analysis is the selection of a comparable group of companies for which market data is available to conduct a market based cost of capital analysis. I reviewed Mr. Hevert's risk screening criteria for his comparable group selection and I agree with his approach. I will employ the same eight gas utilities in my comparable group and modeling analyses as Mr. Hevert has identified. All of these companies are dividend-paying utilities with investment grade bond ratings. I have included a listing in Exhibit (OCS-3.4) of the gas utilities in the comparable group along with basic data for beta, historical and forecasted equity ratios.

Q. DO YOU HAVE OTHER SPECIFIC REASONS EXPLAINING WHY YOU EXAMINED COMPARABLE GAS COMPANIES?

A. There are several reasons why the estimate of a cost of capital requires an analysis of a group of comparable risk companies rather than the single firm subject of the analysis:

(1) A comparable risk group analysis is consistent with the requirements of a fair and reasonable return addressed in the *Hope* and *Bluefield* cases. The return on investment should be commensurate with returns earned by firms with comparable risk. Thus, there is a need to examine firms of comparable risk to identify the fair and reasonable comparable returns being earned. In addition, the equity returns of comparable firms are viewed as opportunity costs of forgone investments in the market that like other investment opportunities, will directly impact the cost of equity of the Company.

(2) The reliability of the cost of equity estimate is enhanced when the calculation is based on equity capital estimates from a variety of risk equivalent companies. A group of comparable companies can be employed as a check on a single company analysis. Further, the comparable group analysis, whether employed as a check or the primary analysis, mitigates any distortions resulting from measurement errors

in dividend yield and expected growth measures and estimates. For example, the average growth rate estimate based on forecasts of several comparable firms is less likely to deviate from investor expectations of growth than an estimate for a single firm. Moreover, the general assumptions underlying the DCF model are more likely to be met for a group of companies than for a single firm.

(3) An analysis of a comparable group also avoids circularity problems. In the analysis of investor-owned utilities, the stock price (that is, the cost of equity capital) is a direct function of an investor's growth rate expectations, which is also a function of an investor's perception of the regulatory environment. The cost of equity depends in part on the anticipated regulatory environment and actions.

(4) Extending the sample size of comparable companies beyond a single regulatory influence will mitigate the regulatory circularity problem. Specific conditions concerning a subject utility often require that a comparable company analysis be employed. One of the most common conditions is the lack of market data necessary to perform a DCF analysis. In times of utility consolidation and merger, many utilities are owned and controlled by a single parent holding company.

SECTION VII: COST OF CAPITAL MODELS DCF ANALYSIS

Q. PLEASE EXPLAIN THE CONSTANT GROWTH DCF METHODOLOGY YOU HAVE EMPLOYED IN YOUR ANALYSIS.

A. The foundation of the DCF model is in the theory of security valuation. The price that an investor is willing to pay for a share of common stock today is determined by what income stream the investor expects to receive from the investment. The return the investor expects to receive over the investment time horizon is composed of: (i) dividend payments and (ii) the appreciated sale value of the investment. A proper analysis adds dividends to the gain on the final sale value, and discounts these expected future earnings to a present value.

To determine or estimate investor requirements using the DCF model, one computes a cost of capital requirement, or discount rate from the current market data and the expected dividend stream. The DCF model stated as a formula is as follows:

$$K = D/P + G$$

where:

K = required return on equity,

D = dividend rate,

P = stock price,

D/P = dividend yield, and

G = growth in dividends.

Q. PLEASE EXPLAIN HOW YOU CALCULATED THE DIVIDEND YIELD FOR THE COMPARABLE COMPANIES.

A. The dividend yield is the ratio of the dividend rate to the stock price. When calculating the dividend yield, one must be cautious and not rely on spot stock prices. One must be equally cautious not to rely on long periods of time as the data becomes unrepresentative of market conditions. The objective is to use a period of time such that the resulting dividend yield is representative of the prospective period when rates will be in effect.

While there is no fixed period for selecting the denominator of the dividend yield (i.e., stock price), the key guideline is that the yield not be distorted due to fluctuations in stock market prices. On the other hand, dividends, the numerator of the yield calculation, are relatively stable, as opposed to the stock prices, which are subject to daily and cyclical market fluctuations. The selection of a representative time period will dampen the effect of stock market changes.

The price and dividend data used for each of the proxy companies in the comparable group is contained in my Exhibit (OCS-3.5).

I have examined monthly closing stock prices for the period April 2019 through September 2019 for 26-week, 12-week, along with 52 week high and low averages, to calculate a representative price for the dividend yield calculation. For this analysis, I have employed the recent 3-month average price in calculating the dividend yield.

To calculate dividends, one could employ the current annualized dividend increased for ½ the expected growth rate. Because utility companies tend to increase quarterly dividends

at different times throughout the year, the assumption is that dividend increases will be evenly distributed over the calendar quarters for the comparable group companies. Given the above, it is appropriate to calculate the expected dividend yield by applying one-half of the long-term estimates of growth to the current dividend yield. I have calculated the yield employing the dividend estimates from Value Line and the recent three-month average price and the resulting dividend yields are shown in my Exhibit (OCS-3.5).

Q. EXPLAIN HOW YOU HAVE CALCULATED THE EXPECTED GROWTH RATE IN YOUR CONSTANT GROWTH DCF ANALYSIS FOR THE COMPANIES IN THE COMPARABLE GROUP.

A. Like the dividend yield, there exists no single or simple method to calculate growth rates. The calculation of investor growth expectations is the most difficult part of the DCF analysis. To estimate investor expectations of growth, I have examined historical growth and forecasted growth rates, and other financial data for each of the companies in the comparable group.

Implementation of the DCF model requires the exercise of considerable judgment with regard to estimating investor expectations of growth and it is a difficult task, but such difficulties are not insurmountable. Many economic factors affect capital markets in general and individual stocks specifically. Such economic variables entail the current state of the economy, the trade deficit, federal budget uncertainty, fiscal policy, inflation, and Federal Reserve Board policies on interest rates.

Investors generally have good information on the economic and financial variables outlined above. All of this information is available quickly, especially in recent decades with easy access to the internet.

Like the information available on the general economy, investors also have access to a wealth of information about particular types of securities, industries and specific company investments. This information is also factored into investor expectations and therefore the stock price individuals are willing to pay.

Common stock earnings growth rate forecasts and historical growth rate data may be found in the Value Line publication. These Value Line earnings estimates are five-year projections in annual earnings. Again, Value Line is widely available to the public, and is a good source of earnings projections. Other earnings estimates are forecasted by Zacks as well as First Call projections, which are widely available on the internet at Zacks.com and Yahoo Finance respectively. Those earnings projections along with other stock specific financial data provide a range of estimates of earnings and are readily available at no cost.

Another growth estimate is referred to as the sustainable growth or retention ratio growth estimate. To project future growth in earnings under the sustainable growth method, one multiplies the fraction of a firm's earnings expected to be retained (not paid out as dividends) by the expected return on book equity. As a formula:

Growth = ("b" x "r")

Where:

"b" =1- (dividends per share/earnings per share)

"r" =earnings per share / net book value share

All the data necessary to calculate the elements of the sustainable growth method are available on a forecasted basis in Value Line.

I have extended this sustainable growth formula to include the impact of external equity financing. The growth formula including external financing is:

$$g = br + sv$$

The terms "b" and "r" have been described above, "s" is the expected growth in shares to finance investment, and "v" is the profitability of those expected investments.

Q. PLEASE EXPLAIN YOUR GROWTH RATE ANALYSIS.

A. I have included in my Exhibit (OCS-3.6), a three-page schedule showing the growth rates

I have reviewed in my analysis. The first set of growth rates examined is the five-year and ten-year historical growth rates in earnings per share, dividends per share, and book value per share as reported by Value Line. The second set of growth rates is the Value Line forecasted growth rates in dividends, book value and earnings per share for each company in the comparable group. The third set of growth rates examined is the Zacks forecasted growth rates in earnings. The fourth growth estimate considered, the First Call growth estimate, is readily available to investors at Yahoo Finance.

In addition, I have examined the growth rates based on the forecasted internal growth, the so-called sustainable growth estimate discussed above.

The growth rates described above provide a range of estimates for each of the comparable companies. The resulting range of average and median forecasted growth rates for the gas utility comparable group is shown in Exhibit (OCS-3.6).

Q. DID YOU RELY ON THE HISTORICAL GROWTH RATES?

A. No. Historical growth rates are a starting place for the analysis, but investors consider additional information when formulating expectations. Moreover, whether the trends of the past ten or five years continue to hold may be a suspect assumption. Instead, I rely on all earnings per share forecasted growth rates (from Value Line, Zacks, and Yahoo Finance) as a better predictor of investor expectations

Q. PLEASE SUMMARIZE YOUR CONSTANT GROWTH DCF ANALYSIS.

A. The comparable group mean and median results fall in a range of 8.98% to 9.28% with about a 9.13% midpoint. These analyses can be found in my Exhibit (OCS-3.7), column G. As I note on my Exhibit (OCS-3.7), all results below 7.5% or above 12.5% have been excluded from the calculations. There are no regulatory authorities considering or authorizing equity returns below 7.5% and investment alternative returns would likely keep investors from seeking returns below 7.5% for utility companies under current market conditions. Thus, I treated all results below 7.5% as unreasonable and excluded them from the analysis. Likewise, in the low-cost capital markets no regulatory authority is considering equity returns at or above 12.5% for local gas distribution operations. I have

excluded such results as outliers.

Q. HAVE YOU CALCULATED ADDITIONAL DCF ANALYSES FOR THE COMPARABLE GROUP COMPANIES?

A. Yes. I have calculated a two stage non-constant growth DCF analysis for the companies in the comparable groups.

Q. PLEASE DESCRIBE YOUR TWO-STAGE NON-CONSTANT GROWTH DCF.

A. This analysis calculates equity cost using a non-constant growth two stage DCF Model. The constant growth DCF model is often adjusted to reflect multiple growth assumptions because the constant growth rate assumption is often not consistent with investor expectations. As an example, it is often the case where short-term growth estimates are not consistent with long-term sustainable growth projections. In those instances, where more than one growth rate estimate is appropriate, a multi-stage non-constant growth model can be employed to derive a cost of capital estimate. In other words, the constant growth model is adjusted to incorporate multiple growth rate periods, assuring a constant growth (long-term) rate is estimated for a longer period.

For the comparable group, the first growth stage (years 1-4) of the model, the Value Line growth in dividends is employed and an annual dividend is calculated. The second stage (years 5 and beyond) employs an earnings growth estimate based on the individual company in the comparable group forecast sustainable growth estimate ("b*r"+"s*v").

Q. WHAT ARE THE RESULTS OF THE TWO STAGE NON-CONSTANT GROWTH DCF ANALYSIS?

A. The results of the two-stage non-constant growth DCF analysis are shown in Exhibit (OCS-3.8), column L. The gas company comparable group mean and median results indicate a cost of equity range of 8.55% to 9.25% with a 8.90% midpoint.

SECTION VIII: BOND YIELD EQUITY RISK PREMIUM, CAPM AND ECAPM COST OF EQUITY ESTIMATE

Q. PLEASE DESCRIBE THE RISK PREMIUM ANALYSIS.

A. Debt instruments such as bonds (long-term debt) are less risky than common equity when both classes of capital are issued by the same entity. Bondholders have a prior contractual claim to the earnings of the corporation and returns on bonds are less variable and more predictable than stocks. The bottom line is that debt is less risky than equity. There are numerous return studies of capital market investments, all of which show lower returns with lower risks and higher returns with higher risk investments. These financial truisms provide a sound theoretical basis and foundation for the risk premium method for estimating equity costs. The risk premium approach is useful in that the analysis is based on current market interest rates, that is, the current observable cost of debt capital. But the risk premium approach is not without its problems and drawbacks. In practice, there is considerable debate as to the time period to analyze in the determination of the bond/equity return risk spread. Historical debt/equity risk spreads measured over many decades may not be relevant to current capital market requirements. Others argue that a long-term analysis is necessary, since the goal is to measure investors' long-term expectations.

Another version of the risk premium method is the capital asset pricing model ("CAPM"). Generally, the CAPM begins with a theoretically risk-free interest rate such as a 30-year Treasury bond yield. The risk premium, or equity spread above and beyond the risk free rate is adjusted by the stock beta.[33] The risk free return measure is combined with the equity risk premium adjusted for the measure of beta to arrive at a CAPM result.

Like the risk premium discussed above, the CAPM is subject to measurement uncertainties. First, the problem of how to measure the equity risk premium and the time period for which the premium is analyzed are subject to considerable debate. This problem and associated criticisms is generic to all variants of the risk premium model. Second, measures of beta

[33] Beta is a measure of the volatility of the specific stock movement relative to that of a market measure such as the S&P 500. A beta below 1.0 means that a specific stock is less volatile than the market measure, while a beta above 1.0 indicates a specific stock is more volatile than the market measure.

are sometimes unstable from period to period and may not reflect the equity risk spread measure.

Finally, I examine Empirical Capital Asset Pricing Model ("ECAPM") estimates. The ECAPM is quite similar to the CAPM described above with the difference being an adjustment for the beta estimate in the model. Firms with beta estimates below unity tend to have actual beta values that are higher. The ECAPM includes an adjustment to correct for any systematic measurement errors in beta.

Risk premium methods should be viewed with caution. The bond yield equity risk premium analysis, ECAPM and CAPM described below consists of analyses that estimate DEU's cost of capital and are employed along with the DCF results described earlier to estimate the Company's cost of equity.

Q. DESCRIBE YOUR BOND YIELD EQUITY RISK PREMIUM ANALYSIS.

A. The bond yield equity risk premium analysis compares the authorized gas utility return on equity relative to 30-year U.S. Treasury bond yields for the period 1981 - 2018. This analysis is set forth in my Exhibit (OCS-3.10). The resulting risk premium is combined with the 30 years U.S. Treasury Bond recent 3-month average yield and the September 2019 spot yield to determine the range of risk premium estimates of equity costs.

The resulting risk premium range of results for gas utilities is 8.99% to 9.07% with a midpoint of 9.03%.

CAPITAL ASSET PRICING MODEL ANALYSIS

Q. PLEASE EXPLAIN HOW YOU CALCULATED THE EQUITY RETURN ESTIMATE EMPLOYING THE CAPM.

A. I employed the basic CAPM formula denoted as follows:

$$R_f + \beta(R_m - R_f)$$

Where:

R_f = risk free rate;

β =beta;

R_m= market return; and

$R_m - R_f$= market risk premium or MRP

This is the typical model structure employed by most financial analysts in estimating equity returns.

Q. WHAT RISK FREE (R_f) VALUE DID YOU EMPLOY IN YOUR CAPM ESTIMATE?

A. I employed the most recent three-month average of the 30 Year U.S. Treasury Bond rates. This three-month average is:

TABLE 4

30-Year U.S. Government Bond Yields

July 2019	2.57%
August 2019	2.12%
September 2019	2.15%
3 Month Average	2.28%

Q. WHAT VALUE DID YOU EMPLOY FOR BETA IN YOUR CAPM ANALYSIS?

A. I employed a Value Line beta estimate for each company in the comparable group as shown in my Exhibit (OCS-3.4), column A.

Q. WHAT VALUE HAVE YOU EMPLOYED FOR THE MARKET RISK PREMIUM ("MRP")?

A. To calculate the MRP, I first looked at the historical risk premiums for the period 1926-2017. These historical equity and bond returns are calculated and reported through the Ibbotson yearbook published by Morningstar. The following summarizes the historical MRP for the 1926-2017 period:

TABLE 5

Market Risk Premium

Investment[34]	Arithmetic Mean Return
Large Company Stocks	12.0%
Long Term Government Bonds	6.0%
Historical MRP	6.0%

Thus, the historical MRP is 6.0% above the risk-free rate U.S. Treasury Bonds.

I also estimated a more current MRP by measuring the difference between the long- term equity returns on large company stocks of 12.0% and the current September 2019 U.S. Treasury yields of 2.15%. This alternative produces an MRP of 9.85% (12.0% - 2.15%). I have employed the 9.85% more current MRP estimate given the low interest rates and wide spreads between debt and equity in current markets.

I recognize such a high MRP is not consistent with the expected ranges of MRP's of 5% - 8% found in a number of studies in the financial literature, but current financial markets suggest higher MRP's.[35]

Q. IN YOUR ANALYSES, HAVE YOU INCLUDED A CALCULATION OF THE EMPIRICAL CAPM OR ECAPM RETURN ESTIMATE FOR THIS CASE?

A. Yes. Like the CAPM analysis discussed above, the ECAPM estimate of equity return relies on basic financial theory in order to correct for biased beta estimates, an adjustment is made so as not to understate the cost of equity. The basic formula for the ECAPM for beta conversion is as follows:

$$K = R_f + 0.25(R_m - R_f) + 0.75\beta(R_m - R_f)$$

[34]Market Results for Stocks, Bonds, Bills, and Inflation, 1926-2016, Duff & Phelps 2016 Classic Yearbook.
[35]Morin, Roger; New Regulatory Finance, Public Utility Reports, Inc. (2006). See Chapter 5.

Q. WHAT ARE THE RESULTS OF YOUR CAPM AND ECAPM ANALYSES FOR THE GAS COMPANY COMPARABLE GROUP?

A. The results of these CAPM and ECAPM analyses can be found in my Exhibit (OCS-3.9) at column E for the gas comparable group. The range of ECAPM results are 9.54% to 9.68% with a midpoint of 9.61%.

Q. PLEASE SUMMARIZE YOUR COST OF EQUITY CAPITAL RESULTS FOR DEU.

A. Table 1 above is a summary of the equity cost estimates for the comparable groups of companies employing the constant growth DCF, 2-Stage DCF, bond yield equity Risk Premium, CAPM, and ECAPM models. The average of all models is 9.1%. Considering only the DCF results suggest a lower 9.0% equity cost is appropriate. In this case I am recommending a 9.1% equity return reflecting all the modeling results.

SECTION IX: CAPITAL STRUCTURE

Q. WHAT CAPITAL STRUCTURE IS THE COMPANY PROPOSING IN THIS PROCEEDING?

A. Based on the direct testimony of Company witness Jordan Stephenson, and reflecting capital cost estimates through the December 31, 2020 test year end the Company is proposing the following capital structure, cost rates and overall cost of capital to be earned on rate base investment:

TABLE 6

DOMINION ENERGY UTAH

OVERALL REQUESTED COST OF CAPITAL[36]

Line No	Description	Percent	Cost Rate	Weighted Cost
1	Long-Term Debt	45.00%	4.34%	1.953%
3	Common Equity	55.00%	10.50%	5.775%
4	Total	100.00%	---	7.728%

Thus, the Company requests an overall cost of capital to be earned on DEU's rate base investment of 7.73% in this case.

Q. WHAT IS THE SIGNIFICANCE OF CAPITAL STRUCTURE?

A. The overall cost of capital is the sum of the weighted average cost rates of various sources of capital. The quantity or portion of each type of capital, combined with the cost rate of capital determines the overall rate of return that the Company should be allowed to earn in this proceeding. The most significant relationship in any capital structure is the debt to equity ratio.

Q. DOES THERE EXIST SOME SET RELATIONSHIP OR IDEAL MIX OF DEBT AND EQUITY CAPITAL?

A. There exists no set debt/equity relationship for all firms or all industries in terms of leveraging. However, the ideal capital structure is one that minimizes the overall cost of capital to the firm, while still maintaining financial integrity so as to maintain the ability to attract capital at reasonable costs to meet future needs. Because the cost of debt is generally lower than the cost of equity, and also because the cost of debt represents a tax-deductible expense, any increase in the quantity of debt capital tends to decrease the overall cost of capital relative to equity financing. One must keep in mind that increases in the quantity

[36] Direct Testimony Jordan Stephenson at page 20.

of debt financing can cause the financial risk of the Company to increase. In other words, there is a cost for the savings associated with increased debt leveraging. That cost is increased financial risk to the firm.

In summary, it is not possible to determine with precision the exact proportion of debt and equity that minimizes the overall cost of capital without imposing undue financial risk upon the Company. There does exist some range of capital structure that generally, meets the goal of minimizing the overall cost of capital while maintaining the firm's financial integrity.

Q. WHAT CRITERIA SHOULD REGULATORS EMPLOY IN DETERMINING THE APPROPRIATE CAPITAL STRUCTURE TO BE USED FOR RATEMAKING?

A. In my opinion, rate regulation should focus on two criteria to determine the appropriate capital structure. Those factors, as outlined below, should be economy and safety.

The advantage of debt in the capital structure is that debt costs less than equity. Moreover, interest charges are deductible for income tax purposes and act to reduce taxes. Thus, the more debt in the capital structure the lower the cost of capital will be. The question of economy is addressed by examining whether increases in the debt ratio act to increase the cost rates of both debt and equity so as to over balance the benefits of the larger proportion of debt.

In addition, there is always the overriding question of safety. In other words, financial risk is increased if the proportion of debt is increased by such a magnitude that interest obligations cannot be covered during periods of depressed earnings.

Q. HAVE YOU MADE ANY CHANGES TO THE COMPANY'S PROPOSED CAPITAL STRUCTURE AND COST RATES?

A. Other than reducing the cost of equity to 9.1%, I am not at this time proposing any other capital structure or cost rate changes. However, to the extent the Company makes changes in updates additional issues may be raised that may need to be addressed.

I should also note that the 55% equity ratio DEU has included in capital structure is

somewhat high by historical standards. The higher current equity ratios reflect equity adjustments to offset cash flow decreases created by the implementation of the Tax Cut and Jobs Act ("TCJA"). While the lower tax rates and lower levels of deferred taxes have reduced utility cash flows, such cash flow reductions are temporary. Utility company rate base will be larger in the future because deferred taxes (a rate base offset) are lower. Given the higher future rate base earnings level – cash flows and returns will be higher over time. The end result is that the higher equity ratios currently seen in the utility industry is a temporary aberration and not a trend for the future.

Q. WHAT CAPITAL STRUCTURE AND COST RATES ARE YOU RECOMMENDING THAT THE COMMISSION ADOPT IN THIS CASE?

A. Based on the analyses and results discussed above, I am recommending the following capital structure, cost rates and overall cost of capital for this case:

TABLE 7
DOMINION ENERGY UTAH
OCS RECOMMENDED COST OF CAPITAL

Description	Ratio	Cost	Weighted Cost
Long-term Debt	45.00%	4.34%	1.953%
Common Equity	55.00%	9.10%	5.005%
Total	100.00%	---	6.958%

As can be seen from the above table when the long-term debt cost rates and common equity cost rates reflect current market conditions, the Company's overall cost of capital is 6.958%. I have included the capital structure in my Exhibit (OCS-3.11) as part of the financial metrics analysis.

SECTION X: FINANCIAL INTEGRITY

Q. HAVE YOU REVIEWED CREDIT RESEARCH REPORTS FOR THE COMPANY REGARDING CREDIT QUALITY AND CORPORATE FINANCIAL METRICS?

A. Yes. The Company's credit quality is not threatened or under pressure of downgrade. I have discussed these issues earlier with regard to a recent Moody's and the S&P Credit Reports.

Q. WILL YOUR RECOMMENDED RETURN PROVIDE THE COMPANY SUFFICIENT CASH FLOW AND FINANCIAL METRICS TO MAINTAIN ITS FINANCIAL INTEGRITY?

A. Yes. Based on the capital structure above, my recommended overall cost of capital (which is based on a 9.1% equity return) provides sufficient financial metrics for the Company.

Q. WHAT FINANCIAL RATIOS OR FINANCIAL METRICS SHOULD THE COMMISSION CONSIDER WHEN EVALUATING COST OF EQUITY?

A. In my opinion, the Commission should consider the financial metrics that bond rating agencies consider in evaluating credit risk to a company. Key financial metrics involve cash flow coverage as a percentage of debt, and debt leverage ratio.

Q. HOW ARE THESE FINANCIAL RATIOS CONSIDERED AND CALCULATED?

A. Ratings agencies such as Moody's and Standard & Poor's develop rating guidelines that make explicit general ratings outcomes that are typical or expected given various financial and business risk combinations. A rating matrix or guideline is just that, a guideline, not a rule written in stone that guarantees a particular rating for a particular achieved financial metric level.

Funds or cash flow from a company's operations, in other words cash flow, are very critical to any rating/risk consideration. Interest and principal obligations of a company cannot be paid out of earnings if earnings are not cash. Thus, analyses of cash flow reveal debt-servicing ability.

Debt and capital structure considerations are indicative of leverage and flexibility to address financial changes. The 2008 liquidity crisis that hit all markets and industries is an example of the importance of financial flexibility. Stable and continuous cash flows provide financial flexibility.

Several of these financial ratios are calculated in my Exhibit (OCS-3.11) employing my recommendations in this proceeding. The results of my analyses indicate strong financial metrics, supporting the Company's current single "A" bond rating.

SECTION XI: RESPONSIVE TESTIMONY TO ROBERT HEVERT

Q. DO YOU HAVE ANY COMMENTS REGARDING THE DIRECT TESTIMONY AND RECOMMENDATIONS OF COMPANY WITNESS ROBERT HEVERT?

A. Yes, I have a number of comments. First, as to Mr. Hevert's' recommended return on equity of 10.50% for DEU, such a return level is overstated and not supported by market data or his own modeling results when updated for current interest rate levels. I discussed earlier in this testimony current market data and how such current market data supports an equity return in the 9.1% range. Further, Mr. Hevert's own results support an equity return of about 9.1% when updated and corrected. Mr. Hevert's' CAPM estimates support an equity return of 8.8% after correcting for his overstated government bond yield estimates and erroneous Market Risk Premium (MRP) estimates all of which are discussed below. The same overstated bond yields bias Mr. Hevert's bond yield risk premium estimates. When Mr. Hevert's models are updated and/or corrected for obvious errors his equity cost estimate supports a 9.1% equity return estimate, well below his claimed 10.5% cost of equity.

The bottom line is that Mr. Hevert's equity return models support the equity return I am recommending in this case. There is no support for the requested 10.5% equity return proposed by DEU in this proceeding.

Q. HOW DOES MR. HEVERT END UP WITH SUCH A HIGH 10.5% EQUITY RETURN ESTIMATE FOR DEU WHEN CAPITAL COSTS ARE LOW AND DECLINING?

A. There are three basic reasons that drive Mr. Hevert's capital cost estimate, which can only be described as an unreasonable and unreliable equity return result. First, Mr. Hevert includes unreasonable and, in some cases, theoretically impossible cost of equity estimates. Rather than exclude such unreliable and theoretically impossible results, Mr. Hevert attempts to average all his estimates in an attempt to arrive at a reasonable estimate. But, averaging unreasonable results with reasonable estimates produces an unreasonable average of all results.

Second, Mr. Hevert's analysis was submitted prior to recent Federal Reserve actions lowering federal funds rates. His analysis fails to recognize the low and declining level of interest rates. Instead, Mr. Hevert employs out of date interest rate levels and unreliable projections of future interest rate levels. The result is that the interest rates employed by Mr. Hevert are 100 basis points and more, higher than current yield levels. This overstatement of interest rates impacts both his CAPM, ECAPM, and the bond yield equity Risk Premium analysis.

Third, Mr. Hevert's reliance on the ex-ante calculations of Market Risk Premium in DEU Exhibit 2.03 lead to an additional overstatement in his CAPM and ECAPM estimates in this case. Again Mr. Hevert ignores unreasonable results in his ex-ante analysis of market risk premium and attempts to average away unreliable estimates. I discuss all of these issues in the following pages.

Q. PLEASE ADDRESS THE ISSUES YOU FOUND WITH MR. HEVERT'S DCF ANALYSIS?

A. Mr. Hevert employs a standard constant growth DCF analysis. I have no problem with his basic model and application of the constant growth DCF in this case. The problem occurs when you review Mr. Hevert's results at his DEU Exhibit 2.01 pages 1 through 3. Mr.

Hevert's DCF analyses produce results ranging from as low as 4.90%[37] to as high as 28.83%.[38] Moreover, there are numerous unreasonable estimates between 4.90% and 28.83% that Mr. Hevert also includes in his calculations.

The problem is that a 4.90% equity return estimate is almost equal to the current debt rates and on its face is an illogical and unreasonable estimate. On the other end of the spectrum an equity return estimate of 28.83% is about 3 times the average authorized equity returns of 9.59% - again an illogical estimate. Rather than remove outliers and illogical results Mr. Hevert includes these illogical estimates by averaging them in his final estimate. Averaging illogical and unreasonable estimates with other more reasonable estimates only leads to an unreasonable average result. Mr. Hevert should have excluded such unreasonable estimates from his analysis. Had Mr. Hevert removed such unreasonable estimates his DCF range would be in the 9.23% to 9.78% range with a midpoint of about 9.5%.

Q. PLEASE DESCRIBE THE PROBLEMS YOU HAVE FOUND IN MR. HEVERT'S RISK PREMIUM, CAPM AND ECAPM ANALYSES?

A. The first problem with Mr. Hevert's bond yield equity risk premium, CAPM, and ECAPM analyses is that Mr. Hevert employs overstated interest rates for the 30-year U.S. Treasury bonds. Given Mr. Hevert submitted his analysis prior to July 1, 2019 his bond yield assumptions are stale and dated especially in light of Federal Reserve actions of July 31, 2019 and September 18, 2019 to lower the Fed Funds rate which was discussed earlier in my testimony. Current, early October 2019 30-year U.S. Government bonds are in the 2.0% range. Mr. Hevert's analysis employs 30-year U.S. bond estimates of 2.92% current, 3.08% near-term projected, and 4.05% long-term projected all of which substantially exceed current capital market costs.[39] Updating Mr. Hevert's bond yield equity risk premium for the current debt cost levels of about 2.0% reduce his risk premium estimate to about 9.14%.

[37] Direct Testimony of Robert Hevert at DEU Exhibit 2.01, page 1 of 3, column 10.
[38] Direct Testimony of Robert Hevert at DEU Exhibit 2.01, page 2 of 3, column 12.
[39] Direct Testimony Robert Hevert at page 64, line 1202 – 1203.

The same overstatement of interest rates is applicable to Mr. Hevert's CAPM and ECAPM analysis. In addition, Mr. Hevert's calculation of ex-ante market risk premium critical to the CAPM and ECAPM analyses has numerous errors. I have discussed above the problems surrounding his use of overstated interest rates and that will not be repeated here. Mr. Hevert's calculation of MRP is described in his direct testimony at page 56, lines 1035 – 1049, and the results are presented in his DEU Exhibit 2.03 pages 1-14. The problem with his analysis is that in some cases illogical results are produced. For example, in some cases Mr. Hevert calculates an illogical result of a negative DCF result.[40] Rather than exclude these illogical results Mr. Hevert includes such results in his weighted average analysis. Other forecasted DCF results exceed 40%, 60%, 80%, and even 100%, but Mr. Hevert includes such estimates in his weighted average. One can have little confidence relying on such mechanical applications in the absence of professional judgment and analysis.

Q. ARE YOU ABLE TO CORRECT MR. HEVERT'S CAPM AND ECAPM ANALYSES?

A. Yes. Employing Mr. Hevert's "Expected Earnings Analysis"[41] for the MRP calculation along with the current 2.0% 30-year U.S. Government Bond yields result in a CAPM/ECAPM equity return estimate of about 8.80%. Thus, combining the corrected DCF estimate of 9.50%, with the updated bond yield risk premium of 9.14%, and the updated CAPM/ECAPM results of 8.80% indicates a cost of equity of 9.15%. This analysis is consistent with my own estimates of 9.1% in this case.

The bottom line is that Mr. Hevert's original estimates in this case are substantially overstated and do not reflect the market capital costs.

Q. DO YOU HAVE ANY COMMENTS REGARDING HEVERT'S BUSINESS RISK CONCERNS?

[40] DEU Exhibit 2.03 pages 2, 3, 5, 7 at column 8.
[41] DEU Exhibit 2.07.

A. Yes, I have several concerns and comments. First, while Mr. Hevert raised several issues concerning DEU's business risk no direct adjustment to cost of capital has been proposed by Mr. Hevert.[42]

At page 25 of Mr. Hevert's direct testimony he discusses "Electrification" risks and the potential decline in natural gas demand and service. There is no evidence of "Electrification" risks impacting DEU currently or in the immediate future. In terms of "carbon transition risks" Moody's states:

> *Questar Gas has low carbon transition risk within the utility sector because it is a gas LDC and natural gas commodity purchase costs are fully passed through to customers with an effective cost recovery mechanism. Moreover, the company's decoupling mechanism helps to insulate its financial profile from the potential negative impacts of lower gas sales volume, should usage decline.*[43]

The rating agencies view near-term carbon transition risks as low for DEU. Thus it would appear Mr. Hevert's business risk assessment is overstated.

Next, Mr. Hevert raises issue with what he describes as DEU's significant planned capital expenditures.[44] Mr. Hevert fails to consider that over 30% of these planned capital expenditures, when completed, will be recovered through the infrastructure tracker mechanism.[45] Next, Mr. Hevert fails to note that DEU annual depreciation recoveries cover another third of capital expenditures. I have included below a calculation of the effective DEU planned capital expenditures.

[42] Direct Testimony Robert Hevert pages 25 through 34.
[43] Moody's Investor Services, Questar Gas Company, Credit Opinion at 4 (January 30, 2019) in Exhibit (OCS-3.13), starting page 32.
[44] Direct Testimony Robert Hevert page 30 line 539.
[45] See DEU response to OCS Data Request 1.41 in Exhibit (OCS-3.12).

TABLE 8
DEU Projected Capital Expenditures and Recovery

Year	Total CAPEX[46]	Infrastructure Mechanism[47]	Annual Depreciation[48]	Net CAPEX
2019	$232,899,070	$70,936,572	$85,423,490	$76,539,008
2020	$288,295,417	$80,000,000	$85,423,490	$122,871,927
2021	$262,997,629	$82,000,000	$85,423,490	$95,574,139
2022	$306,091,541	$84,050,000	$85,423,490	$136,618,051
2023	$283,387,001	$85,983,150	$85,423,490	$111,980,361
Total	$1,373,670,658	$402,969,722	$427,117,450	$543,583,486

As shown in the above table the initial amount of capital expenditures of $1.37 billion is not as burdensome or risky when one considers that the Infrastructure mechanism will provide cash flow to cover about one-third of these expenditures. Also, DEU's projected depreciation recovery covers another third of the planned expenditures. Excluding coverage from the Infrastructure mechanism and depreciation, this leaves an approximate annual $100 million of added expenditure requirement which is not risky or a burden on DEU.

Q. PLEASE SUMMARIZE YOUR COMMENTS ON MR. HEVERT'S TESTIMONY.

A. Mr. Hevert's equity return calculations are outdated due to market capital cost changes since he wrote his testimony. In addition, some of Mr. Hevert's analysis contain questionable assumptions and estimates. When Mr. Hevert's models are updated and corrected the net result supports a much lower cost of equity in the 9.1% range. Lastly, in terms of risks, the Company is a low risk LDC gas provider. Mr. Hevert provides no support for his risk claims.

[46] See DEU response to OCS Data Request 1.41, available in Exhibit (OCS-3.12).
[47] See DEU response to OCS Data Request 1.41.
[48] See DEU Exhibit 4.06, page 1, line 21, column (B).

Q. DOES THIS CONCLUDE YOUR TESTIMONY?

A. Yes.