Exh. DCP-1T
Dockets UE-240006/UG-240007
Witness: David C. Parcell

BEFORE THE WASHINGTON
UTILITIES AND TRANSPORTATION COMMISSION

WASHINGTON UTILITIES AND TRANSPORTATION COMMISSION, **Complainant,** **v.** **AVISTA CORPORATION d/b/a AVISTA UTILITIES,** **Respondent.**	**DOCKETS UE-240006 and UG-240007 (*Consolidated*)**

TESTIMONY OF

DAVID C. PARCELL

ON BEHALF OF THE STAFF OF WASHINGTON UTILITIES AND TRANSPORTATION COMMISSION

Cost of Capital

July 3, 2024

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I. INTRODUCTION

Q. Please state your name and address.

A. My name is David C. Parcell. My address is 2218 Worchester Rd., Midlothian, VA 23113.

Q. By whom are you employed and in what capacity?

A. I am a Principal and Senior Economist of Technical Associates, Inc.

Q. Please state your qualifications to provide testimony in this proceeding

A. I hold B.A. (1969) and M.A. (1970) degrees in economics from Virginia Polytechnic Institute and State University (Virginia Tech) and a M.B.A. (1985) from Virginia Commonwealth University. I have been a consulting economist with Technical Associates since 1970. I have provided cost of capital testimony in public utility ratemaking proceedings dating back to 1972, and I have previously filed testimony and/or testified in over 625 utility proceedings before more than 50 regulatory agencies in the United States and Canada.

Q. Have you testified previously before the Commission?

A. Yes. I have previously filed testimony on behalf of the Staff of the Washington Utilities and Transportation Commission (Commission) in several proceedings involving Cascade Natural Gas, Puget Sound Energy and Pacific Power & Light Company, as well as Avista

Corporation d/b/a Avista Utilities (Avista). Exh. DCP-2 provides a more complete description of my education and relevant work experience.

Q. What is the purpose of your testimony in this proceeding?

A. I have been retained by the Commission Staff to evaluate the cost of capital (COC) aspects of the proposed electric and natural gas Multi-year Rate Plan (MYRP) of Avista. I have performed independent studies and I am making recommendations of the current and prospective COCs for Avista. The Company has proposed a two-year rate plan for the years ended December 31, 2025 and December 31, 2026. Commission Staff is proposing, for the purposes of this proceeding, that a single-year rate plan (December 31, 2025) be approved for Avista. As a result, my analyses address the COC for Avista to be applied to the 2025 single-period rate plan. I have also performed COC analyses for the two-year rate plan (2025 and 2026) proposed by Avista in order to provide a relevant set of COCs in the event the Commission chooses to implement a MYRP in this proceeding.

In my testimony, I derive COCs for the following three time periods: December 31, 2024 (effective date of new rates), December 31, 2025 (Rate Year 1 of Avista MYRP and rate period of Staff single period rate plan), and December 31, 2026 (Rate Year 2 of Avista MYRP).

Q. Have you prepared an exhibit in support of your testimony?

A. Yes. In addition to Exh. DCP-2, identified above, I have prepared Exh. DCP-3 through Exh. DCP-16. These exhibits were prepared by me. The information contained in these

exhibits is correct to the best of my knowledge and belief. In addition, Exh. DCP-17 and DCP-18 are Avista responses to certain Staff Data Requests.

II. RECOMMENDATIONS AND SUMMARY

Q. What are your COC recommendations in this proceeding?

A. My overall COC recommendations for Avista are shown in Exh. DCP-3 and can be summarized as follows:

Item	Percent	Cost	Weighted Cost
December 31, 2024			
Short-Term Debt	1.92%	6.588%	0.13%
Long-Term Debt	49.58%	4.93%	2.44%
Common Equity	48.50%	9.50%	4.61%
Total	100.0%		7.18%
December 31, 2025			
Short-Term Debt	1.88%	5.58%	0.10%
Long-Term Debt	49.62%	4.96%	2.46%
Common Equity	48.50%	9.50%	4.61%
Total	100.0%		7.17%
December 31, 2026			
Short-Term Debt	1.80%	5.343%	0.10%
Long-Term Debt	49.70%	4.99%	2.48%
Common Equity	48.50%	9.50%	4.61%
Total	100.0%		7.19%

Avista's application requests a COC of 7.61 percent and a cost of equity (ROE) of 10.40 percent for the first year of its MYRP ending December 31, 2025,[1] which is also applied to the second year of its MYRP (December 31, 2026). I note that I develop individual COCs for each year of the MYRP whereas Avista is requesting a single COC, as of December 31, 2025, for its proposed two-year MYRP.

[1] Christie, Exh. KJC-1T at 2:24-28 and 14:12-18 (Table No. 2).

Q. Please summarize your analyses and conclusions.

A. This proceeding is concerned with Avista's regulated electric utility and natural gas operations in Washington. My analyses concern the Company's COCs. As noted in a later section of my testimony, Avista performs its electric and natural gas operations in Washington, and all other states except Alaska, through its Avista Utilities division. Avista Utilities is not a distinct corporate entity and does not have its own financial statements and capital structure. Avista has traditionally used its corporate structure, exclusive of its Alaska operations, to establish rates in Washington. In addition, it has not distinguished between its electric and natural gas operations from a COC perspective. I have followed this tradition in my analyses and thus focus on Avista's capitalization and a single annual COC and ROE for both its electric and natural gas operations.

The first step in performing my COC analyses is to develop the appropriate capital structure. Avista proposes use of a capital structure comprised of 48.5 percent common equity and 51.5 percent debt,[2] which is the same capital structure approved by the Commission in recent rate proceedings. I also use the 48.5 percent common equity ratio from these previously adopted capital structures,[3] which remains the proper capital structure for the Company. In contrast to Avista, I include short-term debt as a separate component in the capital structure. As noted previously, I develop a capital structure and COC for Avista for the periods December 31, 2024, December 31, 2025, and December 31, 2026.

[2] *Id.*

[3] My COC analyses separate the short-term debt and long-term debt components. Avista includes the cost of short-term debt in its proposed cost of debt.

The second step in a COC calculation is to determine the embedded cost rates of debt. Avista proposes use of a 4.99 percent cost of debt (this includes both the costs of long-term debt and short-term debt), which is an estimated cost rate as of December 31, 2025.[4] In my analyses, I have utilized separate costs for long-term debt and short-term debt. In addition, I use separate costs of debt for each of the two years contained in the proposed MYRP. As shown on Exh. DCP-3, I have derived the cost of long-term debt from the responses to Staff DR-027 and the information contained in Exh. KJC-2, which is 4.93 percent for December 31, 2024, 4.96 percent for December 31, 2025, and 4.99 percent for December 31, 2026. I have accepted the Company's costs of short-term debt, as shown on the same above-cited sources, which is 6.588 percent for December 31, 2024, 5.58 percent for December 31, 2025 and 5.343 percent for December 31, 2026.

The third step in the COC calculation is to estimate the ROE. I employ four recognized methodologies to estimate Avista's ROE, each of which I apply to a proxy group of utilities. These four methodologies and my findings are:

Methodology	Range
Discounted Cash Flow (DCF)	9.0%-10.0% (9.5% mid-point)
Capital Asset Pricing Model (CAPM)	10.70% (10.70% mid-point)
Comparable Earnings (CE)	9.0%-9.5% (9.25% mid-point)
Risk Premium (RP)	9.8%-10.8% (10.3% mid-point)

Based upon these findings, I conclude that Avista's ROE is within a range of 9.5 percent to 10.0 percent. This range is supported collectively by the results of all of the methodologies except for CAPM, which is currently an outlier due to Federal Reserve policy to contain the rate of inflation, which has raised the yields on US Treasury bonds

[4] Christie, Exh. KJC-1T at 14:12-18 (Table No. 2).

(the risk-free rate component in the CAPM formula). I further conclude that a reasonable ROE for Avista is 9.5 percent, the low end of my ROE range, in order to recognize the risk-reducing attributes of the MYRP recognized in SB 5295, as well as the Commission's long-standing principle of gradualism. As I note later, Staff's proposal in this proceeding to adopt a single-period rate plan is not intended to impact the on-going use of MYRPs but rather is a means to provide a more reasonable scheduling system where Avista and Puget Sound Energy (PSE) file their respective MYRPs in alternate years. As a result, the fact that Staff is proposing use of a single-year rate plan in this proceeding and the Company will have the opportunity to propose a MYRP in the near future (and thereby placing the respective filing periods of Avista and PSE in alternate years), does not have the on-going effect of reducing the benefits of the MYRP concept. I recommend the same 9.5 percent ROE for each year of the MYRP (if it is adopted by the Commission in this proceeding), as well as for both Avista's electric utility and natural gas operations.

III. ECONOMIC/LEGAL PRINCIPLES AND METHODOLOGIES

Q. What are the primary economic and legal principles that establish the standards for determining a fair rate of return for a regulated utility?

A. Public utility rates are normally established in a manner designed to allow the recovery of their costs, including capital costs. This is frequently referred to as "cost of service" ratemaking. Rates for regulated public utilities traditionally have been primarily established using the "rate base, rate of return" concept. Under this method, utilities are

allowed to recover a level of operating expenses, taxes, and depreciation deemed reasonable for rate-setting purposes, and are granted an opportunity to earn a fair rate of return on the assets utilized (i.e., rate base) in providing service to their customers.

The rate base is derived from the asset side of the utility's balance sheet as a dollar amount and the rate of return is developed from the liabilities/owners' equity side of the balance sheet as a percentage. Thus, the revenue impact of the COC is derived by multiplying the rate base by the rate of return, including income taxes.

The rate of return is developed from the COC, which is estimated by weighting the capital structure components (debt and common equity) by their percentages in the capital structure and multiplying these values by their cost rates. This is also known as the weighted cost of capital.

Technically, "fair rate of return" is a legal and accounting concept that refers to an *ex post* (after the fact) earned return on an asset base, while the COC is an economic and financial concept which refers to an *ex ante* (before the fact) expected, or required, return on a capital base. In regulatory proceedings, however, the two terms are often used interchangeably, and I have equated the two concepts in my testimony.

From an economic standpoint, a fair rate of return is normally interpreted to mean that an efficient and economically managed utility will be able to maintain its financial integrity, attract capital, and have an opportunity to earn comparable returns for similar risk investments. These concepts are derived from economic and financial theory and are generally implemented using financial models and economic concepts.

Although I am not a lawyer and I do not offer a legal opinion, my testimony is based on my understanding that two United States Supreme Court decisions provide the

controlling standards for a fair rate of return. The first decision is *Bluefield Water Works and Improvement Co. v. Public Serv. Comm'n of West Virginia*, 262 U.S. 679 (1923). In this decision, the court stated:

> The annual rate that will constitute just compensation depends upon many circumstances and must be determined by the exercise of fair and enlightened judgment, having regard to all relevant facts. A public utility is entitled to such rates as will permit it to earn a return on the value of the property which it employs for the convenience of the public equal to that generally being made at the same time and in the same general part of the country on investments in other business undertakings which are attended by corresponding risks and uncertainties; but it has no constitutional right to profits such as are realized or anticipated in highly profitable enterprises or speculative ventures. The return should be reasonably sufficient to assure confidence in the financial soundness of the utility, and should be adequate, under efficient and economical management, to maintain and support its credit and enable it to raise the money necessary for the proper discharge of its public duties. A rate of return may be reasonable at one time and become too high or too low by changes affecting opportunities for investment, the money market, and business conditions generally.

It is generally understood that the *Bluefield* decision established the following standards for a fair rate of return: comparable earnings, financial integrity, and capital attraction. It also noted that required returns change over time, and there is an underlying assumption that the utility be operated efficiently.

The second decision is *Federal Power Comm'n v. Hope Natural Gas Co.*, 320 U.S. 591 (1942). In that decision, the Court stated:

> The rate-making process under the [Natural Gas] Act, i.e., the fixing of 'just and reasonable' rates, involves a balancing of the investor and consumer interests . . . From the investor or company point of view it is important that there be enough revenue not only for operating expenses but also for the capital costs of the business. These include service on the debt and dividends on the stock. By this standard the return to the equity owner should be commensurate with returns on investments in other enterprises having corresponding risks. That return, moreover, should be sufficient to assure confidence in the financial integrity of the enterprise, so as to maintain its credit and to attract capital.

The three economic and financial parameters in the *Bluefield* and *Hope* decisions – comparable earnings, financial integrity, and capital attraction – reflect the economic criteria encompassed in the "opportunity cost" principle of economics. The opportunity cost principle provides that a utility and its investors should be afforded an opportunity (not a guarantee) to earn a return commensurate with returns they could expect to achieve on investments of similar risk. The opportunity cost principle is consistent with the fundamental premise on which regulation rests, namely, that it is intended to act as a surrogate for competition.

Q. How can the *Bluefield* and *Hope* parameters be employed to estimate the COC for a utility?

A. Neither the courts nor economic/financial theory has developed exact and mechanical procedures for precisely determining the COC. This is the case because the COC is an opportunity cost and is prospective looking, which dictates that it must be estimated. However, there are several useful models that can be employed to assist in estimating the ROE, which is the capital structure item that is the most difficult to determine. These include the DCF, CAPM, CE and RP methods. Each of these methodologies will be described in more detail later in my testimony.

IV. GENERAL ECONOMIC CONDITIONS

Q. Are economic and financial conditions important in determining the COC for a public utility?

A. Yes. The COCs for both fixed-cost (*e.g.*, debt) components and common equity are determined in part by current and prospective economic and financial conditions. At any given time, each of the following factors has an influence on the COC:

- The level of economic activity (i.e., growth rate of the economy);
- The stage of the business cycle (i.e., recession, expansion, or transition);
- The level and trend of inflation;
- The level and trend of interest rates; and,
- Current and expected economic conditions.

This position is consistent with the *Bluefield* decision, which noted "[a] rate of return may be reasonable at one time and become too high or too low by changes affecting opportunities for investment, the money market, and business conditions generally."[5]

Q. What indicators of economic and financial activity did you evaluate in your analyses?

A. I examined several sets of economic and financial statistics from 1975 to the present. I chose this time period because it permits the evaluation of economic conditions over five full business cycles, allowing for an assessment of changes in long-term trends. Consideration of economic/financial conditions over a relatively long period of time permits an assessment of how such conditions have impacted the level and trends of the COC. This period also approximates the beginning and continuation of active rate case activities by public utilities that generally began in the mid-1970s.

A business cycle is commonly defined as a complete period of expansion (recovery and growth) and contraction (recession). A full business cycle is a useful and

[5] *Bluefield*, 262 U.S. at 693.

convenient period over which to measure levels and trends in long-term capital costs because it incorporates the cyclical (stage of current business cycle), as well as cycle-to-cycle characteristics and, thus, permits an evaluation of structural (or long-term) trends.

Q. Please describe the time frames of the five prior business cycles and the beginning of the current cycle.

A. The five prior complete cycles and current cycle cover the following periods:

Business Cycle	Expansion Period	Contraction Period
1975-1982	Mar. 1975-July 1981	Aug. 1981-Oct. 1982
1982-1991	Nov. 1982-July 1990	Aug. 1990-Mar. 1991
1991-2001	Mar. 1991-Mar. 2001	Apr. 2001-Nov. 2001
2001-2009	Nov. 2001-Nov. 2007	Dec. 2007-June 2009
2009-2020	July 2009-Feb. 2020	Mar. 2020-Apr. 2020
Current	May 2020 -	

Source: The National Bureau of Economic Research, "U.S. Business Cycle Expansions and Contractions."[6]

Q. Please describe how you have examined recent and current economic and financial conditions and their impact on the COC.

A. Exh. DCP-4 shows several sets of relevant economic and financial statistics for the cited time periods. Page 1 contains general macroeconomic statistics, page 2 shows interest rates, and page 3 contains equity market statistics.

Q. Do you have any general observations concerning the recent trends in economic conditions and their impact on capital costs over this broad period?

[6] "US Business Cycle Expansions and Contractions," NBER (March 14, 2023) http://www.nber.org/cycles/cyclesmain.html.

A. Yes, I do. From the early 1980s until the end of 2007, the U.S. economy enjoyed general prosperity and stability. This period was characterized by longer economic expansions, relatively tame contractions, low and declining inflation, and declining interest rates and other capital costs.

The economic/financial data shown on Exh. DCP-4 indicates the following averages for the cited business cycles:

Cycle[7]	No. of Months Exp.	No. of Months Rec.	Real GDP Growth	CPI[8]	A-Rated Utilities Bond Yield
1975-1982	77	15	2.1%	8.3%	11.62%
1983-1991	93	8	3.2%	3.9%	11.04%
1992-2001	121	8	3.6%	2.5%	7.85%
2002-2009	73	19	1.7%	2.6%	6.31%
2010-2020	127	2	1.9%	1.7%	4.22%

This indicates that the most recent business cycle, while having a longer-than-normal expansion period, experienced a lower average annual growth rate of Gross Domestic Product (GDP) in comparison to the prior cycles. This cycle also experienced the shortest recession period. In addition, both the rate of inflation and yields on utility bonds declined significantly over the most recent three business cycles. This is further indicative of a declining cost of equity capital, as is reflected in declining authorized ROEs for regulated electric and natural gas utilities:

[7] Annual periods corresponding to the respective business cycle periods.
[8] Consumer Price Index (CPI).

Authorized Returns on Equity[9]				
	Electric		Natural Gas	
Year	Average	Median	Average	Median
2007	10.32%	10.23%	10.22%	10.20%
2008	10.37%	10.30%	10.39%	10.45%
2009	10.52%	10.50%	10.22%	10.26%
2010	10.29%	10.26%	10.15%	10.10%
2011	10.19%	10.14%	9.91%	10.05%
2012	10.02%	10.00%	9.93%	10.00%
2013	9.82%	9.82%	9.68%	9.72%
2014	9.76%	9.75%	9.78%	9.78%
2015	9.60%	9.53%	9.60%	9.68%
2016	9.60%	9.60%	9.53%	9.50%
2017	9.68%	9.60%	9.73%	9.60%
2018	9.56%	9.58%	9.59%	9.60%
2019	9.65%	9.65%	9.73%	9.73%
2020	9.39%	9.48%	9.47%	9.44%
2021	9.39%	9.50%	9.56%	9.60%
2022	9.58%	9.53%	9.53%	9.60%
2023	9.66%	9.60%	9.60%	9.55%

Q. Please describe the two most recent business cycles and their impact on the COC for utilities and other enterprises.

A. Since 2008, there have been three significant economic events which impacted capital costs. First, in 2008 and 2009, the U.S. economy declined significantly, initially as a result of the 2007 collapse of the "sub-prime" mortgage market and the related liquidity crisis in the financial sector of the economy and followed by a significant decline in most sectors of the U.S. and global economies. This decline has been described as the worst financial crisis since the Great Depression of the 1930s and has been referred to as the "Great Recession." This was both a substantial (in terms of GDP decline) and longer-lasting recession that resulted in unprecedented Federal Reserve System (Federal Reserve) and other governmental actions to stimulate the economy. These actions

[9] *See* S&P Global Market Intelligence: "Regulatory Focus." Data for electric and natural gas general rate cases.

included the Federal Reserve's maintenance of the "Fed Funds Rate" at a near-zero level and the purchase of longer-term U.S. Treasury securities[10] in an effort to stimulate the economy through increasing the money supply and lowering interest rates on federal debt.

Second, in the first quarter of 2020, the U.S. economy entered another recession. This was largely driven by the Coronavirus Disease 2019 (COVID-19) pandemic and the result that the economic and financial consequences of this serious health crisis created a recession as nations, including the U.S., instituted significant travel, social, and commercial restrictions designed to slow the spread of COVID-19. Beginning in March and lasting into June of 2020, much of the world and U.S. were in "lock down" as a significant portion of both businesses and governments operated under restrictive conditions in some instances and remained closed in other instances. In addition, the U.S. federal government instituted two multi-trillion-dollar stimulus programs (i.e., the CARES Act in 2020 and the American Relief Act in 2021) to aid businesses, individuals, and state/local governments during this crisis. Further, the Federal Reserve implemented several financial and stimulus tools to help maintain the U.S. financial system, again through the maintenance of a near-zero Fed Funds Rate and the purchase of U.S. Treasury securities. As before, the purpose and effect of the Federal Reserve actions were the maintenance of lower interest rates on federal debt to stimulate the economy.

[10] A process known as Quantitative Easing (QE). The Federal Reserve implemented three QDE programs following the financial crisis of 2007-2008 (QE 1 through QE 3) and one additional time (QE 4) during the COVID-19 pandemic/recession. *See. e.g.*, https://americandeposits.com.

Q. What have been the most significant economic factor subsequent to the COVID-19 pandemic and related economic and financial developments?

A. It is evident that the "driving force" of economic and financial developments over the past three years has been the rate of inflation. As noted previously, the rate of inflation (e.g., Consumer Price Index (CPI)) had been relatively low by recent historic standards since the Great Recession and COVID-19 pandemic occurred. Between early 2021 and the middle of 2022, on the other hand, the inflation rate increased. Initially, it was generally believed that the increase in the inflation rate was related to the impacts of COVID-19 (e.g., "transition" and "supply chain" effects resulting from the economic effects of the COVID-19 pandemic), and the ongoing impact of the Russia-Ukraine conflict.[11] It appears that policymakers (Federal Reserve) initially believed the initial increase in inflation in 2021 was "transitory" and chose not to react to inflation but instead left existing monetary policy and fiscal stimulus in place to guard against the economic recovery becoming derailed by the ongoing threat of the pandemic.[12] As inflation became more widespread in 2021 and 2022, however, the Federal Reserve reversed this position and turned its attention to containing the rate of inflation. Beginning in 2022, the Federal Reserve increased the Fed Funds rate several times in an apparently successful effort to combat the rate of inflation. This had a somewhat significant impact on short-term interest rates and also impacted longer-term interest rates, as is shown on page 2 of Exhibit DCP-4.

[11] *See, e.g.*, "Inflation in the U.S. Economy: Causes and Policy Options", Congressional Research Service, (October 6, 2022), https://crsreports.congress.gov.
[12] Id.

The rate of inflation peaked in mid-2022 (e.g., the "year to year" CPI reached 9.1 percent in June of 2022). Since that time, the CPI has declined to a level of about 3 percent.[13] It is noteworthy that "consensus" forecasts of inflation as of mid-2022 were about 2.6 percent, indicating an expectation at that time that the 9 percent inflation would not prevail.[14] I also note that the more recent "consensus" forecasts of inflation are about 2.2 percent.[15]

Q. How have recent inflation trends impacted the level of interest rates?

A. Interest rates have increased over the past two years, largely as a result of the Federal Reserve's previously mentioned efforts to reign in the increase in the inflation rate. Since the beginning of 2022, the Federal Reserve increased the Fed Funds rate several times in an aggressive effort to tame the rate of inflation. The result of this has been a somewhat significant increase in short-term interest rates, as shown on page 2 of Exh. DCP-4. Long-term interest rates have also increased, although not to the same extent as the increase in short-term rates.

It is noteworthy, as also shown on Exh. DCP-4, that the recent and current relationship between short-term and long-term interest rates (i.e., short-term rates are higher) is contrary to the "normal" relationship (i.e., short-term rates are normally lower). This is referred to as an "inverted yield curve" and reflects expectations by investors that interest rates are expected to decline. In fact, rates peaked in October of 2023 and

[13] *See* "Economic Indicators," Council of Economic Advisors, U.S. Government Printing Office, June 2023 and June 2024.
[14] *See* Blue Chip Financial Forecasts, June 1, 2022.
[15] *See* Blue Chip Financial Forecasts, April 1, 2024.

declined in November and December of 2023, in line with an expectation that the Federal Reserve's increases in the Fed Funds rate is over.[16] The Federal Reserve has not increased the Fed Funds rate since mid-2023.

Q. Do current capital market conditions reflect the impact of recent increases in the rate of inflation and certain interest rates?

A. Yes, they do. Security markets (e.g., stock market prices) reflect the collective impact of investors' perceptions of all relevant information.[17] As a result, any perceived impacts of inflation and interest rates are already incorporated in stock and other security prices and, as a result, an analysis of the current COC (using market-based methodologies such as DCF, RP, and my version of CE) incorporates these factors.

V. AVISTA'S OPERATIONS AND RISKS

Q. Please summarize Avista and its operations.

A. Avista, formerly known as Washington Water Power, is a public utility that generates and delivers electricity and natural gas through its generation, transmission, and distribution systems to customers in Washington, Oregon, Idaho, Alaska and a small portion of Montana.

Avista, in its present form, is a public utility that operates two reportable business segments:[18]

[16] The Federal Reserve has indicated that its monetary policies will not result in any additional increases in interest rates and that some reductions may occur in 2024.
[17] This is known as the Efficient Market Hypothesis (EMH).
[18] Avista Corp., 2023 Form 10-K at 6 and 8.

- Avista Utilities – an operating division of Avista that delivers electricity (approximately 416,000 customers) and natural gas (approximately 381,000 customers) in Washington, Oregon, Idaho, and Montana; and,
- Alaska Electric Light & Power (AEL&P) – a subsidiary of Avista (acquired July 1, 2014), which is an electric utility located in Juneau, Alaska. AEL&P is a direct subsidiary of Alaska Energy and Resources Co. (AERC) which, in turn, is owned by Avista.

Avista's other businesses include venture fund investments, real estate investments, as well as certain other investments of Avista Capital, which is a direct, wholly owned subsidiary of Avista. These activities do not represent a reportable business segment and are conducted by various direct and indirect subsidiaries of Avista Corp.[19] The Avista Utilities segment accounts for the vast majority of Avista's operations, as it accounted for about 98 percent of Avista's 2023 net income.[20]

Q. What are the current security ratings of Avista?

A. The present long-term debt ratings of Avista are shown on Exh. DCP-5 and are as follows:

	Secured	Corp./Issuer
Moody's	A3	Baa2
Standard & Poor's	A-	BBB

[19] *Id.* at 6.
[20] *Id.* at 132.

Q. What have been the trends in Avista's bond ratings?

A. This is also shown on Exh. DCP-5. As this indicates, Avista's current ratings by Standard & Poor's (S&P) have remained the same throughout the period 2013 to the present. The ratings by Moody's are currently the same as they were in 2013. Moody's ratings were increased by a "notch" (from Baa2 to Baa1) in 2014, and were reduced by a "notch" (from Baa1 to Baa2) in 2018.

Q. How do the bond ratings of Avista compare to other electric and combination gas/electric utilities?

A. Avista's ratings are generally similar to most electric utilities in the U.S. This is evidenced by the relative Moody's and Standard & Poor's debt ratings, as shown on my Exh. DCP-8, which indicates that Avista's ratings are generally similar to those of the group of proxy utilities used to develop the ROE recommendations in my testimony. Avista's ratings are also generally similar to the ratings of the electric group utilized by Company witness McKenzie (also shown on Exh. DCP-8).

Q. Please briefly describe the "recent legislation in Washington" and explain how this impacts the risks and costs of capital for Avista and other utilities.

A. In May of 2021, the Washington legislature passed SB 5295,[21] which:

- Requires a gas or electric company (utilities) to pursue MYRPs that set rates and align cost recovery for several years at a time;

[21] The full title of SB 5295 is as follows: "An act relating to transforming the regulation of gas and electrical companies toward multiyear rate plans and performance-based rate making."

- Allows the Commission to set performance measures to assess a utility under the MYRP;
- Allows utilities to expand bill assistance programs and to invest in programs that achieve energy conservation and improve the energy efficiency of single-family and multifamily rental housing; and,
- Allows utilities to provide financial assistance to organizations who represent highly impacted communities and vulnerable populations in regulatory proceedings.

This legislation provides the impetus for the two-year Rate Plan that forms the basis for Avista's current applications. This is the second MYRP submitted by Avista; the first MYRP was submitted and approved by the Commission in 2022 for the rate years 2022 and 2023.[22]

SB 5295 is largely beneficial to Washington utilities, including Avista, as it provides a more stable regulatory and financial environment. In this regard, Moody's stated, after the passage of the legislation but before the implementation of any MYRPs:

> On 3 May 2021, Washington State Governor Jay Inslee signed into law a senate bill (SB 5295) aimed at reforming the regulatory framework for utilities in the state by paving the way for multi-year rate plans (MYRP) and performance based ratemaking (PBR). The bill could enhance the consistency and predictability of utility regulation and provides credit positive opportunities for Washington's utilities, including Puget Energy Inc's (Puget, Baa3, stable) primary subsidiary Puget Sound Energy, Inc. (PSE, Baa1, stable) and Avista Corp. (Avista, Baa2, stable), to reduce regulatory lag and earn returns closer to their authorized returns on equity (ROE). However, improved regulatory and financial outcomes for these utilities remain subject to the bill's implementation by the Washington Utilities and Transportation Commission (WUTC), the state's utility regulator.

[22] *Wash. Util. Transp. Comm'n v. Avista Corp. d/b/a Avista Utilities*, Dockets UE-220053 & UG-220054, Final Order 10/04 (Dec. 12, 2022).

> The bill requires the WUTC to develop, in collaboration with utilities and other interested stakeholders, a policy statement on alternatives to traditional cost of service rate making, including performance measures, incentives, and penalty mechanisms. The WUTC must provide an update to the relevant legislative committees by 1 January 2022.
>
> Importantly, beginning 1 January 2022, utilities are required to include a proposal for a MTRP between two and four years in length in every general rate case filing. The bill allows for property that is deemed used and useful as of the rate effective date of the first year of a MYRP to be included in rate base, with the remainder of the rate plan based on forecasted information. This would be a material improvement over the historical test year currently used by utilities in rate cases and help reduce regulatory lag, a credit positive. The terms approved by the WUTC for the first two years of a MYRP are binding, but utilities must update power costs at the beginning of the third year and may file a new multi-year rate plan for the third and fourth rate year, if applicable. In addition, if a utility earns a rate of return 50 basis points higher than authorized, excess revenues must be deferred for customer refund or other uses as determined by the WUTC in a subsequent proceeding.
> ….
> This new law follows Washington's Clean Energy Transformation Act (CETA), signed into law in May 2019, that requires utilities to eliminate coal-fired electricity by 2025 and commits to a carbon free electricity supply by 2045. While the CETA also clarified the WUTC's authority to consider and implement various constructive regulatory mechanisms including MYRPs and PBR regulation, SB 5295 provides more enforceable guidance. We view the PBR construct as credit positive because MYRPs with performance targets and the potential to earn performance incentives will not only work to reduce regulatory lag, but also aid PSE's and Avista's renewable transition, improve operational efficiency and enhance cash flow and profitability, all while considering customer cost and service.[23]

It is apparent from these statements that Moody's considers the recent regulatory mechanisms to be credit supportive, and therefore risk reducing for Washington electric and natural gas utilities.

[23] Moody's Investors Service, Issuer Comment (10 May 2021) ("Puget Sound Energy Inc. and Avista Corp. Legislation supporting multi-year rate plans has positive credit implications for Washington's investor-owned utilities.") (provided in Dockets UE-220053 & UG-220054, Staff-109).

Q. Have Moody's and S&P commented specifically on Avista's expected impact from SB 5295?

A. Yes. Moody's also stated the following in a report on Avista in 2021 (i.e., before the implementation of its first MYRP):

> The recently passed SB 5295 (enacted on 3 May 2021) followed the clean energy bill and aims at reforming the regulatory framework for utilities in the state by paving the way for multiyear rate plans (MYRP) and performance based ratemaking (PBR). We view the bill as credit positive as it could enhance the consistency and predictability of utility regulation. Specifically, we view the PBR construct as a credit supportive rate making mechanism because MYRPs with performance targets and the potential to earn performance incentives will work to reduce regulatory lag. It could also aid Avista's renewable transition, improve operational efficiency and enhance cash flow and profitability, all while considering customer cost and service.[24]

S&P issued similar analyses and statements in 2021:

> Business Risk: Strong
>
> Avista's business risk profile reflects its low risk, regulated electric and gas utility operations, which contribute more than 95% of the company's EBITA. Our assessment also reflects the company's diverse geographic footprint, with regulated operations across five different states, despite Washington and Idaho accounting for over 90% of its rate base.
>
> Due to legislation (SB 2595) passed in Washington in May 2021, Avista is now required to file multi-year rate cases of two to four years, it's permitted to submit out-of-cycle rate cases if the utility underearns. In addition, over 90% of Avista's utility revenue is covered by regulatory mechanisms. In Washington the company has access to an energy recovery mechanism. This is a regulatory construct that allows Avista to track certain differences in its net power supply costs compared to the costs included in base retail rates and allows the utility to true up these amounts periodically…. Furthermore, Avista benefits from decoupling mechanisms in Washington, Idaho, and Oregon, which provide some downside protection from reduced sales volumes.[25]

[24] *Avista Corp., Update to credit analysis*, Moody's Investors Service, Credit Opinion, (Aug. 10, 2021) (provided in Docket No. UE-200053/UG-220054, Staff-DR-007 Attachment C).
[25] *RatingsDirect, Avista Corp*, S&P Global Ratings (Aug. 5, 2021) (provided in Docket No. UE-200053/UG-220054 Staff-DR-007, Attachment F).

Q. Have Moody's and S&P more recently commented on SB 5295 and its MYRP provisions?

A. Yes. Since the initial implementation of the provisions of SB 5295, including the MYRPs, Moody's has commented further on the risk-reducing aspects of these and other favorable regulatory mechanisms available to Avista. Moody's stated the following in a recent report on Avista:

> **Credit supportive regulatory jurisdictions with adequate track record of cost recovery Washington**
>
> We view Avista's regulatory jurisdictions to be generally credit supportive. The Washington Utilities and Transportation Commission (WUTC), which regulates roughly 60% of the company's rate base and revenue, allows electric and gas decoupling mechanisms which provide for timely recovery of fixed utility costs and stable gross margins in the face of declining use. Even so, the use of historic test years has resulted in some regulatory lag, which has impacted cash flow recovery over the years and requires Avista to file frequent general rate cases.
>
> Avista's last Washington electric and natural gas general rate case (filed January 2022) resulted in a multiparty settlement that was approved by the WUTC in December 2022. The two year rate plan included an electric revenue increase of $38 million (6.9%) effective December 2022 and a $12.5 million (2.1%) increase effective December 2023. For natural gas, the settlement included a $7.5 million (6.5%) increase in December 2022 and a $1.5 million (1.2%) increase in December 2023. The parties agreed to a 7.03% rate of return on rate base with all other aspects, such as the ROE and capital structure, not made public. We view this outcome as credit supportive and a driver of Avista's improved credit metrics in 2023.
>
> Nevertheless, the lag in cash flow recovery and limited revenue increases have pressured Avista's credit metrics particularly during a time when the sector faced material headwinds from higher natural gas prices and other cost pressures. However, Avista settling its last three general rate cases including the 2022 general rate case discussed above, which as the first multiyear rate plan approved following the passage of SB 5295. We view this as evidence of an improved relationship with the WUTC and demonstrates a trend of more consistent regulation in the State of Washington.

> We expect the company to continue to receive supportive regulatory outcomes consistent with the state passage of SB 5116 and SB 5295 in 2019 and 2021, respectively. The bills aimed to reform the regulatory framework and pave the way for multiyear rate plans and performance based ratemaking. We discuss more details on SB 5116 in "Washington approves clean energy bill, a credit positive for investor-owned utilities" (16 May 2019) and on SB 5295 in "Legislation supporting multiyear rate plans has credit positive implications for Washington's investor owned utilities" (10 May 2021).[26]

In addition, S&P made the following comments in a recent report on Avista:

> Over 90% of Avista's utility revenue is covered by regulatory mechanisms. In Washington, the company has access to an energy recovery mechanism. This is a regulatory construct that allows Avista to track certain differences in its net power supply costs compared to the costs included in base retail rates and allows the utility to true-up these amounts periodically. Similarly, the company has access to a power cost adjustment mechanism in Idaho, which allows for the deferral of 90% of its energy cost differences for future recovery. On the gas side, a purchased gas adjustment mechanism is available in all its jurisdictions, which allows the company to mitigate the risk of fluctuating gas prices. Furthermore, Avista benefits from decoupling mechanisms in Washington, Idaho, and Oregon, which provide some downside protection from reduced sales volumes. Partially offsetting is the company's exposure to physical risk, and that the company potentially faces energy transition risks that must be managed.[27]

It is correspondingly clear that Moody's and S&P continue to regard the recent legislation, as well as other favorable regulatory mechanisms, as risk-reducing to Avista.

Q. What impact does this legislation and other mechanisms have on Avista and its ROE in this proceeding?

[26] *Avista Corp., Update to Credit Analysis*, Moody's Investors Service, Credit Opinion (Aug. 16 2023) (provided in Avista's Response to Staff's Data Request 10).
[27] *Ratings Direct, Avista Corp., Ratings Score Snapshot*, S&P Global Ratings (Dec. 8, 2023) (provided in Avista's Response to Staff's Data Request 10).

A. It is apparent that SB 5295, as well as several other favorable regulatory mechanisms (as cited by Moody's and S&P) the Company continues to have access to, provides favorable risk-reducing attributes. The impact of these mechanisms, on both an individual and collective basis, is to transfer a significant portion of Avista's risks from its shareholders to its ratepayers. This risk transfer is not voluntary from the ratepayer perspective. I correspondingly believe that ratepayers should receive some benefit for their acceptance of this risk transfer.

Q. How do you propose that Avista's ratepayers be compensated for this risk transfer?

A. I first note that the most relevant impact of the recent legislation is to reduce the overall level of risks to Avista, compared to what the risks were prior to the implementation of the legislation. In other words, Avista is less risky on a "post-legislation" basis than it was on a "pre-legislation" basis.

I also note that the more recent descriptions of the MYRP, as noted above, confirm Moody's and S&P's initial assessment of the risk-reducing aspects of the MYRP as well as other favorable Washington regulatory mechanisms.

I recommend that the ROE established in this proceeding be set at a level that is no higher than the bottom of the market-determined ROE range for the proxy group, as established by the various cost of equity models employed in this proceeding, which is 9.5 percent.[28] The Commission recognizing the impact of SB 5295 would be consistent

[28] I note that in the initial MYRP proceeding of Puget Sound Energy (Dockets UE-220066, et. al.) I recommended that PSE's ROE for its proposed MYRP be set at a level no greater than the mid-point of a market-determined ROE for the proxy group. At that time the MYRP process had not been implemented in Washington. Now that the MYRP has been implemented and recognized as risk reducing, it is proper to recognize the concept of a lower portion of the ROE range.

with the reduced risk Avista is now exposed to in conjunction with the MYRP legislation's reduction of regulatory lag, as well as the PBR ratemaking mechanisms. This is also consistent with the Commission's preference for the concept of gradualism, as cited in a later portion of my testimony.

Q. What is Commission Staff's recommendation in this proceeding as it pertains to the continued implementation of a MYRP for Avista?

A. Staff is proposing, for this proceeding, that a single-year rate plan be utilized, rather than the MYRP proposed by Avista. This proposal does not indicate that the Staff is opposed to MYRPs for Avista. Rather, it reflects a Staff request, from a scheduling standpoint, that Avista and Puget Sound Energy be on different rate proceeding schedules (i.e., rate cases for Avista and PSE be in different years in order for Staff to properly perform their analyses).[29]

Q. Does this Staff proposal negate the benefits of the use of MYRPs that you have previously described?

A. No, it does not. Avista has just completed its first MYRP. Under the Staff proposal, the Company can file a MYRP next year. As a result, on both a historic and going-forward basis, Avista continues to benefit from the MYRP concept.

[29] *See* BAE-1T, 3.

VI. CAPITAL STRUCTURES AND COSTS OF DEBT

Q. What is the importance of determining a proper capital structure in a regulatory framework?

A. A utility's capital structure is important because the concept of rate base, rate of return regulation requires the capital structure to be utilized in estimating the total COC. Within this framework, it is proper to ascertain whether the utility's capital structure is appropriate relative to its level of business risk and relative to other utilities.

As discussed in a prior section of my testimony, the purpose of determining the proper capital structure for a utility is to ascertain its capital costs. The rate base, rate of return concept recognizes the assets employed in providing utility services and provides for a return on those assets by identifying the liabilities and common equity (and their cost rates) used to finance the assets. In this process, the rate base is derived from the asset side of the balance sheet and the COC is derived from the liabilities/owners' equity side of the balance sheet. The inherent assumption in this procedure is that the dollar values of the capital structure and the rate base are approximately equal, and the former is utilized to finance the latter.

The common equity ratio (i.e., the percentage of common equity in the capital structure) is the capital structure item which normally receives the most attention. This is the case because common equity: (1) usually commands the highest cost rate; (2) generates associated income tax liabilities; and (3) causes the most controversy since its cost cannot be precisely determined.

Q. What are the historic capital structure ratios of Avista?

A. I have examined the historic (2019-2023) capital structure ratios of Avista, which is shown on Exh. DCP-6. The actual (as opposed to Commission-approved) common equity ratios have been:

	Avista Consolidated		Avista Utilities	
	Including S-T Debt	Excluding S-T Debt	Including S-T Debt	Excluding S-T Debt
2019	48.1%	49.9%	48.1%	50.0%
2020	47.2%	49.6%	47.2%	49.8%
2021	47.0%	49.5%	47.0%	49.6%
2022	47.7%	49.8%	47.6%	49.8%
2023	46.4%	49.0%	46.2%	48.9%

This indicates that Avista, on a consolidated basis, has had an equity ratio that has declined slightly over the past five years. The Avista Utilities (Division) capital structure[30] has also declined slightly, with equity ratios (including short-term debt) of about 48 percent or less over the past five years. I further note that all of the above-cited equity ratios are less than the 48.5 percent equity ratio (which includes short-term debt) used by the Commission in determining Avista's COC over the past several rate proceedings of the Company.

Q. How do these capital structures compare to those of investor-owned electric utilities?

A. Exh. DCP-7 shows the common equity ratios (excluding short-term debt in capitalization) for the group of proxy electric utilities used in developing my ROE models and related conclusions. These are:

[30] Avista's Utilities (Division) capital structures exclude affiliate debt and equity.

	Period	Average	Median
Proxy Group	2019-2023	52.0%	50.8%
	2027-2029	51.5%	49.8%

The equity ratios for the proxy group are slightly higher than those of Avista Utilities (excluding short-term debt).

Q. What have been the average common equity ratios adopted by U.S. State Regulatory Commissions in recent years?

A. Over the past several years, the average common equity ratios cited in U.S. state regulatory electric proceedings have been:[31]

	Electric
2015	49.23%
2016	48.91%
2017	48.90%
2018	49.02%
2019	49.94%
2020	49.67%
2021	50.06%
2022	50.36%
2023	51.15%

The utility ratios are slightly higher than those of Avista Utilities' common equity ratios. It is noteworthy, on the other hand, that these equity ratios reflect a combination of approved capital structures, some of which include short-term debt and some of which exclude short-term debt.

Q. What capital structure has Avista requested in the proceedings?

A. Avista proposes a capital structure comprised as follows:

[31] S&P Global, Market Intelligence, "Major Energy Rate Case Decisions in US."

	Percent
Debt	51.5
Common Equity	48.5

This capital structure maintains the same 48.5 percent common equity ratio that has been adopted for Avista in the last several rate proceedings.[32]

Q. What capital structure do you propose to use in these proceedings?

A. I have also used three sets of capital structures, each with 48.5 percent common equity, but with the inclusion of short-term debt for the purposes of these proceedings. My proposed capital structures are derived in Exh. DCP-3 and are as follows:

	December 31		
	2024	2025	2026
Short-Term Debt	1.92%	1.88%	1.80%
Long-Term Debt	45.58%	49.62%	49.70%
Common Equity	48.50%	48.50%	48.50%

Q. Why are you proposing capital structures for Avista containing 48.5 percent common equity?

A. I first note that Avista Utilities' actual capital structure as of December 31, 2023, contained 46.2 percent common equity, as shown on Exh. DCP-6 page 2. Thus, my proposed capital structure contains slightly more equity than the recent actual capital structure ratio of Avista Utilities.

[32] See. *e.g., Wash. Util. Transp. Comm'n v. Avista Corp. d/b/a Avista Util.*, Dockets UE-170485 & UG-170486, at 39-40 ¶¶ 111-112 (April 26, 2018); *Wash. Util. Transp. Comm'n v. Avista Corp d/b/a Avista Util.*, Dockets UE-190334, UE-190335 & UG-190222, Final Order 09, 13 ¶ 34 (March 25, 2020); *Wash. Util. Transp. Comm'n v. Avista Corp. d/b/a Avista Util.*, Dockets UE-220053, UG-220054 & UE-210854, Final Order 10/04, at 56-57, ¶¶156-58 (Dec. 12, 2022).

Second, Exh. DCP-6 shows that the actual equity ratios of Avista Utilities have not increased in recent years.

Third, the common equity ratio in this capital structure matches the capital structure stipulated to by the parties and adopted by the Commission in Avista's prior rate three proceedings,[33] as well as the last two litigated rate proceedings.[34]

Fourth, the proposed capital structure is similar to that of other electric and combination electric utilities, as shown on Exh. DCP-7.

Q. What is the Commission's recent policy on the proper capital structure to use to determine the COC?

A. The Commission's policy on determining a capital structure balances safety (the preservation of investment quality credit ratings and access to capital) against economy (the lowest overall cost to attract and maintain capital). The Commission noted that the appropriate capital structure can either be the Company's historical capital structure, the projected capital structure, or a hypothetical capital structure.[35]

Q. Is your recommended capital structure consistent with this policy?

A. Yes. The capital structure that I use is similar to recent actual ratios of Avista, as well as its 2023 capital structure, and is consistent with the capital structure of other electric and

[33] *Avista Corp. d/b/a Avista Util.*, Dockets UE-170485 & UG-170486, at 39-40, ¶¶ 111-112; *Avista Corp.*, Dockets UE-220053, UG-220054 & UE-210854, Final Order 10/04, at 56-57, ¶¶ 156-58.
[34] *Avista Corp.*, Docket UE-190334, Final Order 09, at 13 ¶ 34.
[35] *Id*. at 39 ¶ 109, *see also, Wash. Util. & Transp. Comm'n v. Puget Sound Energy, Inc.*, Dockets UE-040640 & UG-040641, Order 06, 13 ¶ 27 (Feb. 18, 2005).

combination electric utilities. I also believe that the capital structure that I propose provides a "balance of safety and economy" as cited above.

Q. What are the cost rates of debt in Avista's applications?

A. Avista proposes the cost of debt as of December 31, 2025. Avista's proposed cost of debt is 4.99 percent,[36] which includes both long-term debt and short-term debt. Avista's applications also show a cost of short-term debt of 5.58 percent as of December 31, 2025[37] and 5.343 percent as of 2026.[38] The applications do not identify the costs of long-term debt for Avista, but I have derived the respective cost rates (4.93 percent for 2024, 4.96 percent for 2025, and 4.99 percent for 2026), from the applications and discovery responses,[39] as shown on Exh. DCP-3.

Q. Can the ROE be determined with the same degree of precision as the costs of debt?

A. No. The cost rates of debt are largely determined by interest payments, issue prices, and related expenses. The ROE, on the other hand, cannot be precisely quantified, primarily because this cost is an opportunity cost. As mentioned previously, there are several models that can be employed to estimate the ROE. Four of the primary methods – DCF, CAPM, CE, and RP – are developed in the following sections of my testimony.

[36] Christie, Exh. KJC-2 at 2.
[37] *Id*. at 3.
[38] *Id*. at 4.
[39] *See*, Response to Staff DR 27, Attachment A.

VII. SELECTION OF PROXY GROUP

Q. How have you estimated the ROE for Avista?

A. Avista is publicly traded. Consequently, it is possible to directly apply ROE models to this entity. However, it is generally preferred to analyze groups of comparison or "proxy" companies as a substitute for Avista to determine its ROE.

I have selected one such group for comparison to Avista. I selected a group of electric and combination electric/natural gas utilities using the criteria listed on Exh. DCP-8. These criteria are as follows:

1. Market "cap" of $1 billion to $10 billion;
2. Common equity ratio 40% or greater;
3. Value Line Safety of 1, 2 or 3;
4. Moody's or S&P's bond ratings of investment grade (triple B or higher); and
5. Currently pays dividends and has not reduced dividends in the past five years.

I have not conducted studies of the ROE for all of the companies in the electric group that was selected by Avista's COC witness, Adrien M. McKenzie. Exh. DCP-8 indicates the respective reasons for not including certain of Company witness McKenzie's electric group in my proxy group.

VIII. DCF ANALYSIS

Q. What is the theory and methodological basis of the DCF model?

A. The DCF model is one of the oldest and most commonly used models for estimating the ROE for public utilities.

The DCF model is based on the "dividend discount model" of financial theory, which maintains that the value (price) of any security or commodity is the discounted present value of all future cash flows.

The most common variant of the DCF model assumes that dividends are expected to grow at a constant rate (the "constant growth" or "Gordon DCF model"). In this framework, the ROE is derived from the following formula:

$$K = \frac{D}{P} + g$$

where: P = current price

D = current dividend rate

K = discount rate (cost of capital)

g = constant rate of expected growth

This formula essentially recognizes that the return expected or required by investors is comprised of two factors: the dividend yield (current income) and expected growth in dividends (future income).

Q. Please explain how you employ the DCF model.

A. I use the constant growth DCF model. In doing so, I combine the current dividend yield for each of the proxy utility stocks described in the previous section with several indicators of expected dividend growth.

Q. How did you derive the dividend yield component of the DCF equation?

A. Several methods can be used to calculate the dividend yield component. These methods generally differ in the manner in which the dividend rate is employed (i.e., current versus future dividends or annual versus quarterly compounding variant). I used a quarterly version of the dividend yield, which is expressed as follows:

$$Yield = \frac{D_0(1 + 0.5g)}{P_0}$$

This dividend yield component recognizes the timing of dividend payments and dividend increases.

The P_0 in my yield calculation is the average of the high and low stock price for each proxy company for the most recent three-month period (March – May 2024). The D_0 is the current annualized dividend rate for each proxy company.

Q. How do you estimate the dividend growth component of the DCF equation?

A. The DCF model's dividend growth rate component is usually the most crucial and controversial element involved in using this methodology. The objective of estimating the dividend growth component is to reflect the growth expected by investors that is embodied in the price (and yield) of a company's stock. As such, it is important to recognize that individual investors have different expectations and consider alternative

indicators in deriving their expectations. This is evidenced by the fact that every investment decision resulting in the purchase of a particular stock at a specific price is matched by another investment decision to sell that stock at the same price.

A wide array of indicators exists for estimating investors' growth expectations. As a result, it is evident that investors do not always use one single indicator of growth. It therefore is necessary to consider alternative dividend growth indicators in deriving the growth component of the DCF model. I have considered five indicators of growth in my DCF analyses. These are:

1. Years 2019-2023 (5-year average) earnings retention, or fundamental growth (per Value Line);

2. Five-year average of historic growth in earnings per share (EPS), dividends per share (DPS), and book value per share (BVPS) (per Value Line);

3. Years 2024, 2025 and 2027-2029 projections of earnings retention growth (per Value Line);

4. Years 2021-2023 to 2027-2029 projections of EPS, DPS, and BVPS (per Value Line); and

5. Five-year projections of EPS growth (per Value Line, First Call and Zacks, as reported in Value Line and Yahoo! Finance and Zack's websites, respectively).

This combination of growth indicators is a representative and appropriate set with which to begin the process of estimating investor expectations of dividend growth for the group of proxy companies. Additionally, these growth indicators reflect the types of information that investors consider in making their investment decisions. As I indicated previously, investors have an array of information available to them, all of which would be expected to have some impact on their decision-making process.

Q. Please describe your DCF calculations.

A. Exh. DCP-9 presents my DCF analysis. Page 1 shows the calculation of the "raw" (i.e., prior to adjustment for growth) dividend yield for each proxy company. Pages 2, 3 and 4 show the various growth rates for the group of proxy companies. Page 5 shows the DCF calculations, which are presented on several bases: mean, median, low, and high values. These results can be summarized as follows:

	Mean	Median	Mean Low[40]	Mean High[41]	Median Low[42]	Median High[43]
Proxy Group	8.6%	8.7%	7.9%	9.8%	7.9%	10.6%

I note that the individual DCF calculations shown on Exh. DCP-9 should not be interpreted to reflect the expected ROE for individual companies in the proxy group; rather, the individual values shown should be interpreted as alternative information considered by investors.

Q. What do you conclude from your DCF analyses?

A. The DCF rates resulting from the analysis of the proxy group fall into a wide range between 7.9 percent and 10.6 percent. The mean/median DCF rates are 8.6/8.7 percent and several of the individual growth rate DCF results are within a range of 8.6 percent to 9.8 percent. The highest DCF rates, on both a mean and median basis, are 9.8 percent to 10.6 percent. I note that only one of the potential DCF ROE results are above 9.8 percent, leaving the 10.6 percent high median DCF ROE result as an outlier.

[40] Using only the lowest average growth rate.
[41] Using only the highest average growth rate.
[42] Using the lowest median growth rate.
[43] Using only the highest median growth rate.

A range of 8.6 percent to 10.6 percent (9.6 percent mid-point) broadly represents the current DCF-derived ROE for the proxy group. This range includes most of the DCF rates and exceeds the low and mean/median DCF rates, including the mean/medial values. I note that the upper end of the DCF range reflects the EPS forecasts for the proxy group and exceeds the average and medial results. Within this broad range, I recommend a more narrow range of 9.0 percent to 10.0 percent (9.5 percent mid-point).[44] This range exceeds the mean/median DCF result, excludes the singular highest DCF result, and includes many of the above-average DCF results.

Q. Does Company witness McKenzie also perform DCF analyses?

A. Yes. Company witness McKenzie cites DCF results within a broad range of 9.2 percent to 10.7 percent.[45]

Q. Please summarize Company witness McKenzie's DCF methodology and results.

A. Company witness McKenzie calculates DCF results for a group of 22 proxy electric utilities by combining each proxy company's dividend yield (for the last 30 trading days as on November 28, 2023) with four sets of growth rates, three of which are forecasts of EPS.[46] These four sets of DCF calculations collectively produce DCF ROE results within a range of 9.2 percent to 10.7 percent,[47] three of which are within my DCF results (9.2

[44] In my Prefiled Direct Testimony in the most recent Avista litigated case (Dockets UE-200900 & UG-200901), I noted that the DCF high end results range was 8.9 percent to 9.3 percent (page 31). I stated "My recommendation focuses on the highest of the DCF results to incorporate my recognition that these results are relatively lower than historic DCF results." At the current time, DCF results do not produce ROE results that are lower than has been the case in recent years. As a result, I am now giving weight to the midpoint of the DCF range, as well as the higher portion of the overall DCF results.
[45] McKenzie, Exh. AMM-4.
[46] *Id*., Exh. AMM-7.
[47] *Id*.

percent, 9.7 percent and 9.9 percent). As a result, my DCF ROE results and Company witness McKenzie's DCF ROE results are similar.

IX. CAPM ANALYSIS

Q. Please describe the theory and methodological basis of the CAPM.

A. CAPM was developed in the 1960s and 1970s as an extension of modern portfolio theory, which studies the relationships among risk, diversification, and expected returns. The CAPM describes and measures the relationship between a security's investment risk and its market rate of return.

Q. How is the CAPM derived?

A. The general form of the CAPM is:

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

where: K = cost of equity

R_f = risk free rate

Rm = return on market

β = beta

R_m-R_f = market risk premium

The CAPM is a variant of the RP method. They differ in the sense that the CAPM specifically recognizes the risk of a particular company or industry (i.e., beta), whereas the simple RP method assumes the same ROE for all companies exhibiting similar bond ratings or other characteristics.

Q. What do you use for the risk-free rate?

A. The first input of the CAPM is the risk-free rate (R_f). The risk-free rate reflects the level of return that can be achieved without accepting any risk.

In CAPM applications, the risk-free rate is generally recognized by use of U.S. Treasury securities. Two general types of U.S. Treasury securities are often utilized as the R_f rate, short-term U.S. Treasury bills and long-term U.S. Treasury bonds.

I have performed CAPM calculations using the three-month average yield (March – May 2024) for 20-year U.S. Treasury bonds. I use the yields on long-term Treasury bonds since this matches the long-term perspective of ROE analyses. Over this three-month period, these bonds had an average yield of 4.65 percent. As I stated in a previous section of my testimony, recent Treasury bond yields have been significantly influenced, in an upward manner, by the Federal Reserve's inflation reduction policies. As such, these do not reflect true "market-determined" rates but are rather administered rates by the Federal Reserve.

Q. What is beta and what betas do you employ in your CAPM?

A. Beta is a measure of the relative volatility (and thus risk) of a particular stock in relation to the overall market. Betas less than 1.0 are considered less risky than the market, whereas betas greater than 1 are riskier. Utility stocks traditionally have had betas below 1. I utilize the most recent Value Line betas for each company in the proxy group.

Q. How do you estimate the market risk premium component?

A. The market risk premium component (R_m-R_f) represents the investor-expected premium of common stocks over the risk-free rate, or long-term government bonds. For the purpose of estimating the market risk premium, I considered alternative measures of returns of the S&P 500 (a broad-based group of large U.S. companies) and 20-year U.S. Treasury bonds (i.e., same timeframe of long-term government bonds as employed in SBBI Yearbook[48] source used to develop risk premiums).

First, I compared the actual annual ROEs of the S&P 500 with the actual annual income returns (i.e., interest rates) of 20-year U.S. Treasury bonds. Exh. DCP-10 shows the ROEs for the S&P 500 for the period 1978-2023 (all available years reported by S&P). This exhibit also indicates the annual yields on 20-year U.S. Treasury bonds and the annual differentials (i.e., risk premiums) between the S&P 500 and U.S. Treasury 20-year bonds. Based upon these returns, I conclude that the risk premium from this analysis is 7.8 percent.

I next considered the total returns (i.e., dividends/interest plus capital gains/losses) for the S&P 500 as well as for long-term government bonds, as tabulated by SBBI, using both arithmetic and geometric means. I considered the total returns for the entire 1926-2022 period reported by this source, which are as follows:

	S&P 500	L-T Gov't Bonds	Risk Premium
Arithmetic	12.0%	5.6%	6.4%
Geometric	10.1%	5.2%	4.9%

[48] *U.S. Capital Markets Performance by Asset Class, 1926-2022*, 2023 SBBI Yearbook, Stocks, Bonds, Bills and Inflation, Kroll (formerly Duff and Phelps, Morningstar, and Ibbotson Associates) (this Yearbook is no longer published).

I conclude from this analysis that the expected risk premium is about 6.4 percent (i.e., average of all three risk premiums: 7.8 percent from Exh. DCP-10; 6.4 percent arithmetic and 4.9 percent geometric from SBBI). A combination of arithmetic and geometric means is appropriate since investors have access to both types of means[49] and presumably, both types are reflected in investment decisions and thus, stock prices and the ROE.

Q. What are your CAPM results?

A. Exh. DCP-11 shows my CAPM calculations. The results are:

	Mean	Median
Proxy Group	10.7%	10.7%

Q. What is your conclusion concerning the CAPM ROE?

A. The CAPM results collectively indicate a ROE of 10.7 percent for the group of proxy utilities.

Q. Are you proposing that these CAPM conclusions be given consideration in your ROE recommendations in this proceeding?

A. No, I am not. Over the past several years, I have not given the CAPM results weight in my final ROE recommendations. As I have noted, pre-2022 U.S. Treasury bond yields were heavily impacted, in a downward manner, by Federal Reserve's monetary policies designed to stimulate the economy from the implications of the Great Recession and the

[49] For example, Value Line uses compound (i.e., geometric) growth rates in its projection. In addition, mutual funds report growth rates on a compound basis.

COVID-19 pandemic. As a result, in these times, the CAPM results were substantially lower than the DCF and CE results and I correspondingly gave them no weight in my ROE recommendations.[50]

Over the past two years, the Federal Reserve has reversed this monetary policy strategy, primarily in response to the increase in inflation rates,[51] such that yields on U.S. Treasury bonds now reflect the opposite effect of Federal Reserve monetary policy (i.e., recent and current rates are upwardly biased). As a result of this reversal of Federal Reserve, interest rates are equally reflective of "non-market" factors.

I note, fourth, that the CAPM ROE results incorporate the "peak" of the interest rates of the Federal Reserve's monetary policy cited previously, as demonstrated by the decline in rates since the October 2023 peak levels. Should rates continue to decline, as expected by the markets[52] and cited by the Federal Reserve, any later updates of the CAPM model will produce lower ROE results.

I consequently believe that CAPM ROE results should receive no weight at this time in the ROE determination for utilities, including Avista. I further note that this position is consistent with the Commission's decision to "give little weight to the witnesses' CAPM models for the same reasons explained by Dr. Woolridge and Staff witness Parcell."[53]

[50] *See Wash. Util. Transp. Comm'n v. Avista Corp.*, Dockets UE-200900 & UG-200901, Exh. DCP-1T, at 56:18-20 (Apr. 25, 2022).
[51] Due, in part, to "transition" impacts from COVID-19 shut-down, "supply-chain" effects, and the impact of the Russia-Ukraine conflict.
[52] *See*, previous discussion of negative yield spread, where short-term Treasury bill yields are higher than long-term Treasury bond yields, which indicates the market's expectations that interest rates will decline.
[53] *Avista*, Docket UE-200900, at 39 ¶ 100.

Q. How do your CAPM results compare to the CAPM results of Company witness McKenzie?

A. Company witness McKenzie's testimony reaches CAPM conclusions of 11.7 percent to 11.8.[54] These greatly exceed the CAPM results my testimony suggests. Therefore, Company witness McKenzie's CAPM results are outliers and warrant no current weight in the ROE determination for Avista.

Q. Do you have any comments concerning Company witness McKenzie's CAPM analyses?

A. Yes, I do. I primarily disagree with Company witness McKenzie's risk premium estimates. I also disagree with the "size premium" he employs, as well as the use of the "empirical" CAPM (ECAPM).

Q. Please summarize Company witness McKenzie's risk premium component.

A. Company witness McKenzie calculates a risk premium as follows. The "market return" (Rm) component of the risk premium is an 11.7 percent DCF cost of equity for the dividend-paying companies of the S&P 500. The risk premium subtracts from this 11.7 percent Rm from the 4.4 percent average yield on 30-year U.S. Treasury bonds to derive a 7.3 percent risk premium.[55]

Q. Do you have any criticisms of Company witness McKenzie's CAPM Market Risk Premium components?

[54] McKenzie, Exh. AMM-1T at 47: 1-14; Exh. AMM-4.
[55] *Id*. (notes (a) and (c)); AMM-3 at 17:5-18.

A. Yes. Company witness McKenzie's 7.3 percent risk premium greatly exceeds the historic levels of risk premiums (4.9 percent to 6.4 percent) that I cite in my CAPM analyses. No explanation is offered as to why investors would expect such a dramatic increase in risk premiums.

Q. What are your criticisms regarding the "size premium" adjustment to the CAPM model proposed by Company witness McKenzie?

A. Witness McKenzie adds a "size" premium to the CAPM results for each of the proxy group companies. Company witness McKenzie maintains that there is justification for making a small-firm risk adjustment that results in a higher COC for small firms. The proposed size adjustment varies among the proxy companies with individual values up to 0.93 percent.[56] Such an adjustment is improper and results in an overstatement of the ROE for the proxy electric utilities.

There are compelling reasons why a small size adjustment is not proper for regulated utilities. Company witness McKenzie's proposed size adjustment is based upon a reference to the previously cited SBBI studies.[57] However, the small size adjustment in the SBBI studies is based on the analysis of all stocks, the majority of which are unregulated and include industries that are much riskier than utilities. While it may or may not be true that on an overall market basis, smaller publicly traded firms exhibit more risk than larger firms, these smaller companies' stocks tend to be engaged in riskier businesses as a whole than do larger businesses. Such is not the case for regulated utilities.

[56] McKenzie, Exh. AMM-9 & Exh. AMM-10 (e.g., Avista, Row 4).
[57] *Id.*, at Exh. AMM-9 and AMM-10, Note (F).

Indeed, an academic study conducted by Professor Annie Wong found that:

> [U]tility and industrial stocks do not share the same characteristics. First, given firm size, utility stocks are consistently less risky than industrial stocks. Second, industrial betas tend to decrease with firm size but utility betas do not. These findings may be attributed to the fact that all public utilities operate in an environment with regional monopolistic power and regulated financial structure. As a result, the business and financial risks are very similar among the utilities regardless of their sizes. Therefore, utility betas would not necessarily be expected to be related to firm size.
> . . .
> This implies that although the price phenomenon has been strongly documented for the industrials, the findings suggest that there is no need to adjust for the firm size in utility rate regulation.[58]

Q. Can you provide any evidence that "size" or "business risk" adjustments are not generally recognized as risk factors in regulatory proceedings such as this one?

A. Yes, I can. Implicit in Company witness McKenzie's proposal is an assumption that any perceived small size risk adjustment for unregulated companies (i.e., source of information cited in the SBBI source that Company witness McKenzie relies on for the small size adjustment) applies to regulated public utilities. Exh. DCP-12 demonstrates objectively that this is not the case. As this exhibit shows, there is no significant difference and there is no discernible pattern of increase among the risk indicators of publicly traded electric utilities of different sizes. The table below summarizes the information contained in this schedule:

Cap Size	Safety	Beta	Financial Strength	S&P Rating	Moody's Rating
Under $10B	2.5	.92	B++	BBB+	Baa1
$10-$20B	2.6	1.00	B++	BBB+/A-	Baa2
$20-$30B	1.9	.91	B++/A	BBB+	Baa2
$30B Plus	2.0	.92	A	B++/A-	Baa2

[58] *See* Wong, Annie, "Utility Stocks And The Size Effect: An Empirical Analysis", Journal of the Midwest Finance Association, 95-101 (1993).

The safety rank, beta values, financial strength, and Moody's/S&P bond ratings are about the same for all sizes of electric utilities. These risk indicators do not reflect any risk differential as the size of the electric utilities decrease from large to small. To the contrary, this data indicates that regulated monopoly utility providers have approximately the same risk regardless of size. As a result, the logic Company Witness McKenzie uses to justify the proposed small size adjustment is unsound.

Q. Why do you disagree with Company witness McKenzie's use of the ECAPM?

A. Company witness McKenzie also performs an "empirical" CAPM analysis, which assigns 75 percent weight to actual betas for the proxy group of electric utilities and a 25 percent weigh to an assumed beta of 1.0.[59] I disagree with the ECAPM, since it arbitrarily ignores the actual betas of the proxy utilities and, instead, assigns hypothetical betas to them. It also assumes that investors, such as those who subscribe to and rely on investment services such as Value Line, do not use the actual published Value Line betas but rather "modify" the published betas in an arbitrary fashion.

X. CE ANALYSIS

Q. Please describe the basis of the CE methodology.

A. The CE method is derived from the "corresponding risk" concept discussed in the *Bluefield* and *Hope* cases. This method is thus based upon the economic concept of

[59] McKenzie, Exh. AMM-3 at 21.

opportunity cost. As previously noted, the ROE is an opportunity cost: the prospective return available to investors from alternative investments of similar risk.

The CE method is designed to measure the returns expected to be earned on the original cost book value of similar risk enterprises. Thus, it provides a direct measure of the fair return, since it translates into practice the competitive principle upon which regulation rests.

The CE method normally examines the experienced and/or projected return on book common equity. The logic for examining returns on book equity follows from the use of original cost rate base regulation for public utilities, which uses a utility's book common equity to determine the cost of capital. This cost of capital is, in turn, used as the fair rate of return which is then applied (multiplied) to the book value of rate base to establish the dollar level of capital costs to be recovered by the utility. This technique is thus consistent with the rate base, rate of return methodology used to set utility rates.

Q. How do you apply the CE methodology in your analysis of Avista's ROE?

A. I apply the CE methodology by examining realized ROEs for the group of proxy utilities, as well as unregulated companies, and evaluating investor acceptance of these returns by reference to the resulting market-to-book ratios (M/Bs). In this manner it is possible to assess the degree to which a given level of return equates to the COC. It is generally recognized for utilities that an M/B of greater than one (i.e., 100 percent) reflects a situation where a company is able to attract new equity capital without dilution (i.e., above book value). As a result, one objective of a fair ROE is the maintenance of stock

prices at or above book value. There is no regulatory obligation to set rates designed to maintain an M/B significantly above one.

I further note that my CE analysis is based upon market data (through the use of M/Bs) and is thus essentially a market test. As a result, my CE analysis is not subject to the criticisms occasionally made by some who maintain that past earned returns do not represent the cost of capital. In addition, my CE analysis also uses prospective returns and thus is not backward looking.

Q. What time periods do you examine in your CE analysis?

A. My CE analysis considers the experienced ROEs of the proxy group of utilities for the period 2002-2023 (i.e., the last 22 years), as well as projected ROEs. The CE analysis requires that I examine a relatively long period of time in order to determine trends in earnings over at least a full business cycle. Further, in estimating a fair level of return for a future period, it is important to examine earnings over a diverse period of time in order to avoid any undue influence from unusual or abnormal conditions that may occur in a single year or shorter period. Therefore, in forming my judgment of the current cost of equity, I focused on two historic periods: 2009-2020 (the most recent business cycle) and 2002-2008 (the prior business cycle). I have also considered ROEs for 2021, 2022, and 2023 and projected ROEs for 2024, 2025 and 2027-2029 (i.e., current business cycle).

Q. Please describe your CE analysis.

A. Exh. DCP-13 and Exh. DCP-14 contain summaries of experienced ROEs and M/Bs for two groups of companies, while Exh. DCP-15 presents a risk comparison of utilities versus unregulated firms.

Exh. DCP-13 shows the ROEs and M/Bs for the group of proxy utilities. These can be summarized as follows:

	Proxy Group
Historic Periods ROE	
Mean	9.3-9.4%
Median	9.4%
Historic M/B	
Mean	150-165%
Median	145-155%
Current Period ROE	
Mean	9.7%
Median	8.8%

These results indicate that historic ROEs of 9.3 percent to 9.4 percent been adequate to produce M/Bs of 145 percent to 165 percent for the group of utilities. In addition, current and estimated ROEs of 8.8 percent to 9.7 percent for my proxy group have been accompanied by M/Bs of over 140 percent in the most recent year (2023).

Q. Do you also review the earnings of unregulated firms?

A. Yes. As an alternative, I also examine the S&P 500. This is a well-recognized group of firms that is widely utilized in the investment community and is indicative of the competitive sector of the economy. Exh. DCP-14 presents the earned ROEs and M/Bs for the S&P 500 over the past twenty-two years (i.e., 2002-2023). As this schedule

indicates, over the two business cycle periods,[60] this group's average ROEs ranged from 12.4 percent to 14.5 percent, with average M/Bs ranging between 275 percent and 296 percent.

Q. How can the above information be used to estimate Avista's ROE?

A. The recent ROEs of the proxy utilities and S&P 500 group can be viewed as an indication of the level of return realized and expected in the regulated and competitive sectors of the economy. In order to apply these returns to the ROE for the proxy utilities, however, it is necessary to compare the risk levels of the utilities and the competitive companies. I do this in Exh. DCP-15, which compares several risk indicators for the S&P 500 and the electric utility proxy group. The information in this exhibit indicates that the S&P 500 is riskier than the utility proxy group, as evidenced by the fact that the utilities have similar risk indicators while earning lower ROEs.

Q. What ROE is indicated by your CE analysis?

A. Based on recent ROEs and M/Bs, my CE analysis indicates that the ROE for the proxy utilities is no more than 9.0 percent to 9.5 percent (9.25 percent mid-point). Recent ROEs of 9.3 percent to 9.4 percent have resulted in M/Bs of 145 percent and over. Current/prospective ROEs of 8.8 percent to 9.7 percent have been accompanied by M/Bs over 140 percent. As a result, it is apparent that authorized returns below this level would continue to result in M/Bs of well above 100 percent. As I indicated earlier, the fact that

[60] My analysis of the S&P 500 includes the years 2021, 2022 and 2023 in the recent business cycle, as there are no Value Line estimated ROEs for this group as a whole and therefore the 2021, 2022 and 2023 figures do not reflect a "current business cycle" projection.

M/Bs substantially exceed 100 percent indicates that historic and prospective ROEs of 9.0 percent to 9.5 percent reflect earning levels that are well above the actual cost of equity for those regulated companies. I also note that a company whose stock sells above book value can attract capital in a way that enhances the book value of existing stockholders, thus creating a favorable environment for financial integrity. Finally, I note that my 9.0 percent to 9.5 percent CE recommendation generally reflects the actual and prospective ROEs for the proxy group. I have made no adjustments to these return levels to reflect the high M/Bs.

Q. Please now turn to Company witness McKenzie's Expected Earnings Approach. Please summarize the use of this methodology and conclusions.

A. Company witness McKenzie's Expected Earnings Approach is a form of the comparable earnings methodology. Company witness McKenzie has tabulated Value Line's "expected" return on equity for the proxy group of companies, which is adjusted for a return on average equity (as opposed to Value Line's reporting on year-end equity).

Witness McKenzie's tabulation shows an "Adjusted Return on Common Equity" average of 10.8 percent.[61]

Q. Do you have any criticisms of Company witness McKenzie's Expected Earnings Approach and related conclusions?

A. Yes. It is inappropriate to focus only on expected ROE without any reference to how such returns are accepted by investors. A more appropriate analysis of expected returns

[61] McKenzie, Exh. AMM-1T at 48:18-19; Exh. AMM-12.

on equity is done in conjunction with M/Bs. I reviewed Company witness McKenzie's Expected Earnings Approach by evaluating the investor acceptance of these cited ROEs by reference to the corresponding M/Bs. In this manner, it is possible to assess the degree to which a given level of ROE equates to the COC, as I described previously. Book value is a relevant concept for regulated utilities due to the use of rate of return, rate base regulation, which employs book value for both rate and capital structure. Investors know that utility rates are established based, in part, on book values.

Exh. DCP-13 on page 3 shows the 2021-2023 actual ROE's and 2024, 2025, and 2027-29 projected ROEs of Company witness McKenzie's electric group, as well as the 2023 M/Bs of this group. It is noteworthy that the actual 2021, 2022 and 2023 median ROEs are less than Company witness McKenzie's 10.8 percent CE recommendation. I also note that the projected annual average and median ROEs are all less than his 10.8 percent recommendation. In fact, most of the projected ROEs are 10.0 percent or less. Finally, the 2023 M/Bs are above 160 percent, which indicates that the ROEs are expected to exceed the COC.

Lastly, it is evident that the recent and expected ROEs for the proxy companies, which are mostly holding companies, are higher than the authorized ROEs for electric utilities.

Company witness McKenzie's "Expected Earnings Approach" is thus shown to also overstate the ROE for electric utilities. Company witness McKenzie's use of expected ROEs for the proxy companies, without reference or corroboration with either M/Bs or the levels of authorized ROEs, does not provide useful information concerning the ROE for Avista.

XI. RISK PREMIUM ANALYSES

Q. Please summarize Company witness McKenzie's electric utility risk premium approach.

A. Company witness McKenzie's risk premium approach compares authorized ROEs for electric utilities (between 1974 and 2022) with yields on public utility bonds. Company witness McKenzie then performs a regression analysis to account for a perception of the inverse relationship between interest rates and risk premiums[62] and concludes that the current risk premium is 4.74 percent, which is added to the current yield on Baa utility bonds (6.09 percent) to get a 10.83 percent risk premium ROE.[63]

Q. What are your primary disagreements with this approach and Company witness McKenzie's conclusions?

A. There are several problems with Company witness McKenzie's risk premium analyses, all of which have the effect of overstating the ROE for the proxy companies and Avista. First, the highest risk premium values over this period occurred in 2011-2022.[64] This corresponds to the post-Great Recession period in which the actions of the Federal Reserve kept interest rates artificially low, resulting in higher indicated risk premiums.

Second, it is not proper to compare utility authorized ROEs in the 1970's and 1980's with authorized ROEs at the current time. Current ROEs reflect a suite of

[62] McKenzie, Exh. AMM-11.
[63] *Id*.
[64] *Id*. at 2.

favorable regulatory mechanisms that greatly enhance utilities' ability to recover costs, which is risk-reducing and thus warrants low ROEs.[65]

Q. Have you performed an independent risk premium analysis that avoids the deficiencies in Company witness McKenzie's risk premium analysis?

A. Yes, I have. As I noted above, Company witness McKenzie's RP analyses consider the authorized ROEs of electric utilities dating back to 1974, a relatively long period of time. As I indicated earlier in my testimony (and as shown on Exh. DCP-4, page 2), this period experienced significant declines in interest rates, which is another component of the RP analysis. Company witness McKenzie attempts to "correct" for changes in interest rates by performing a regression analysis that considers only the perceived relationship between authorized ROEs, interest rates, and the resulting period RPs. Such an analysis does not recognize any other changes in RPs, such as the electric utility industry's movement into and out of diversification and deregulation in the 1990s, as well as increased use of regulatory mechanisms (i.e., decoupling, cost recovery mechanisms, etc.) over the past decade. As a result, this regression analysis does not properly capture the current relationship between authorized ROEs and interest rates, as it assumes that there are no factors other than interest rates that impact risk premiums over the study period going back to 1974.

I have accordingly performed a risk premium analysis that focuses on the most recent twelve-year period (i.e., post-Great Recession period) of authorized ROEs and triple-B (i.e., Avista's rating category) utility bond yields. My analysis, by focusing on

[65] *See, e.g., US Utility Sector Upgrades Driven by Stable and Transparent Regulatory Frameworks*, Moody's Investors Service, Sector Comments (Feb. 3, 2014).

the more current time period, is not subject to the longer-term deficiencies in Company witness McKenzie's risk premium analyses (*e.g.*, changes in regulatory environment) over the shorter time period.

Q. Please describe your risk premium analysis.

A. My RP analysis is shown on Exh. DCP-16. I have compared the authorized ROEs of electric utilities that were decided in the period 2012 to 2023. I show two sets of sub-periods: the period 2012 – 2019 (i.e., the pre-COVID-19 period when average interest rates were 4.45 percent to 5.17 percent), and 2012 – 2023 (which adds the most recent years to the earlier period). I note that the inclusion of 2020 to 2023 risk premiums are impacted by the COVID-19 pandemic, as well as the Federal Reserve's anti-inflation monetary policies and are not consistent with the 2012 – 2019 years. During this later period triple-B utility interest rates varied from 3.28 percent to 5.54 percent (both of which were in 2021 to 2023), a much wider range than during the 2012-2019 period.

Also shown on Exh. DCP-16 are the levels of triple-B utility bonds, with corresponding "lags" (between the level of interest rates and the respective commission decisions) of:

No months,
3 months,
6 months,
9 months, and
12 months.

The purpose of showing the lags is to recognize that authorized ROEs often reflect test period and/or hearing period financial conditions that are not simultaneous with the date of the respective commission's final decision establishing the authorized ROEs.

The data in Exh. DCP-16 shows the annual average of authorized ROEs for electric utilities, along with several lagged interest rates, as well as the resulting risk premiums associated with the two sets of annual interest rates.

Q. What are the results of your calculations?

A. As shown on Exh. DCP-16, the annual and multi-year risk premiums are as follows:

Year	A-Rated Bonds[66]	Avg ROE	Risk Premiums
2012	5.17%	10.02%	4.45-5.16%
2013	4.83%	9.82%	4.84-5.12%
2014	4.97%	9.76%	4.69-4.96%
2015	4.80%	9.60%	4.57-4.95%
2016	5.01%	9.60%	4.36-4.92%
2017	4.50%	9.68%	5.00-5.30%
2018	4.45%	9.56%	4.89-5.24%
2019	4.57%	9.65%	4.88-5.46%
2020	3.75%	9.39%	5.20-6.00%
2021	3.28%	9.39%	6.00-6.39%
2022	4.02%	9.58%	4.55-6.22%
2023	5.54%	9.66%	3.82-4.63%
2012-2023 12-Year Avg.	4.57%	9.64%	5.04-5.10%
2012-2019 8-Year Avg.	4.79%	9.71%	4.84-5.01%

In my RP analyses, I use both of the above-cited periods and resulting RP ranges:

2012-2019 4.84-5.01%

2012-2023 5.04-5.10%

[66] Average annual yields of all "lag" time periods.

Q. Are these ranges the appropriate risk premium range to use at the current time?

A. No, it is not appropriate to use these risk premium ranges in connection with current levels of interest rates for the purpose of estimating a RP ROE estimate. For example, the 2012-2019 risk premium range of 4.84 percent to 5.01 percent was derived during a period in which yields on Baa-rated utility bonds were 4.45 percent to 5.17 percent. Current yields on Baa-rated utility bonds are about 6 percent, or 83 to 150 basis points higher.

It is recognized that risk premiums are not constant over time but vary inversely with levels of interest rates (i.e., as interest rates increase, risk premiums decline, and vice versa). I note, in this regard that Company witness McKenzie cites this inverse relationship.[67] Company witness McKenzie's testimony also concludes that the inverse relationship between interest rates and risk premiums reflects approximately a 43 basis point change in the risk premium associated with a 100 basis point change in interest rates.[68] In my RP analyses, I accept Company witness McKenzie's assumption of this relationship between risk premium of interest rate changes. In doing so, I am attempting to minimize the relative differences between our respective RP approaches.[69]

Page 1 of Exh. DCP-16 shows the steps in my RP analysis. This indicates a RP conclusion of 9.83 percent to 10.86 percent, which incorporates the following inputs:

[67] McKenzie, Exh. AMM-1T at 47:18-21.
[68] Note that Company witness McKenzie's RP analyses conclude that the negative relationship between interest rates and risk premiums is about .427 percent (Exh. AMM-11 at 3).
[69] This assumes that this portion of the relationship (i.e., slope of regression line) is the same whether U.S. Treasury bonds or utility bonds is used for measurement.

1. 2012-2019 and 2012-2023 risk premium ranges;

2. Current level of triple-B utility bond yield;

3. Interest rate range of triple-B utility bonds for 2012-2019 and 2012-2023;

4. Relationship between interest rates and bond yields;

5. Required change in risk premium for differential in current and past interest rate; and

6. Risk premium.

Q. What is the appropriate RP return on equity at the present time?

A. Exh. DCP-16 shows RP results of 10.13 percent to 10.61 percent for the 2012-2019 period and 9.83 percent to 10.86 percent for the 2012-2023 period. Note that the latter period shows a wider spread of the RP results, although the mid-point is the same as the 2012-2019 period. Based on these results, I conclude that the RP result for Avista's ROE range is a range of 9.8 percent to 10.8 percent (10.3 percent mid-point).

XII. RETURN ON EQUITY RECOMMENDATION

Q. Please summarize the results of your four ROE analyses.

A. My four ROE analyses produced the following results:

	Mid-Point	Range
DCF	9.5%	9.0-10.0%
CAPM[70]	10.70%	10.7%
CE	9.25%	9.0-9.5%
RP	10.3%	9.8-10.8%
Average	9.68%	9.68%
Median	9.5%	9.65%

[70] CAPM results not included in mean and median results.

These results indicate an overall broad range of 9.0 percent to 10.8 percent, which focuses on the respective high and low individual model results. Using mid-point values, the range is 9.25 percent to 10.3 percent. I note that the CAPM results are an "outlier" in comparison to the other model results. I recommend a ROE range of 9.5 percent to 10.0 percent for Avista at this time, which gives consideration to the results of each of the ROE methodologies excluding CAPM. Within this ROE range recommendation, I recommend a 9.5 percent ROE for Avista, which is the bottom of my recommended range. This is appropriate due to the risk-reducing attributes of the MYRP aspects of SB 5295, as well as the Commission's practice of employing gradualism in changing ROEs for utilities.

Q. Are there any additional factors that should be considered in determining the appropriate ROE for Avista in this proceeding?

A. Yes, there are. First, as I noted previously, the positive impacts of SB 5295 are now more clearly in focus and have the effect of reducing the risk of Avista.

In addition, this Commission has consistently applied a principle of gradualism in setting the ROEs for the utilities in the State. The Commission has stated:[71]

> "When considering changes to a regulated utility's authorized ROE, we endeavor to avoid material adjustments, upward or downward, in authorized levels to provide stability and assurance to investors and others regarding the regulatory environment supporting the financial integrity of the utility. Based on the evidence produced by the various expert witnesses, we generally determine whether modest increases, if any, to currently authorized levels are appropriate given the evidence produced in the immediate proceeding."[72]

[71] *Wash. Util. & Transp. Comm'n v. Puget Sound Energy Inc.*, Dockets UE-190529, et al., Final Order 08, 35 ¶ 105 (July 8, 2020).
[72] *Wash. Util. & Trans. Comm'n v. Avista Corp.*, Dockets UE-170485, UG-170486, UE-171221 & UG-171222, Order 07/02/02, 28 ¶ 68 (Apr. 26, 2018).

I also note that gradualism was cited in the Commission's Decision in the last Avista litigated rate proceeding.[73]

Based on these factors, my 9.5 percent ROE recommendation, which is 0.10 percent higher than Avista's currently authorized 9.4 percent, is reasonable and appropriate.

Q. How does your 9.5 percent ROE recommendation compare to the authorized ROEs that Avista currently has in its other jurisdictions?

A. Avista currently has authorized ROEs of 9.5 percent or below in each of its other jurisdictions (i.e., 9.4 percent in Idaho and 9.5 percent in Oregon).[74]

XIII. TOTAL COST OF CAPITAL

Q. What is the total COC for Avista?

A. Exh. DCP-3 reflects the total COC for Avista using the Company's 2025 and 2026 capital structures and embedded costs of debt, as well as 2024, along with my ROE recommendations.

XIV. COMMENTS ON COMPANY TESTIMONY

Q. What ROE is Avista requesting in this proceeding?

[73] *Wash. Util. Transp. Comm'n v. Avista Corp. d/b/a Avista Util.*, Dockets UE-200900, UG-200901, & UE-200894, Final Order 08/05, at 38 ¶ 97 (Sept. 27, 2021).
[74] *See* Exh. DCP-17, Response to Data Request Staff -011.

A. Avista is requesting a 10.4 percent ROE for both its electric and natural gas operations. This 10.4 percent ROE is sponsored by Company witness McKenzie.[75]

Q. What is the basis of Company witness McKenzie's 10.4 percent ROE recommendation?

A. Company witness McKenzie's ROE analyses are summarized on Exh. AMM-4. These are shown as follows:

	Result
DCF	
Value Line	9.7%
IBES	10.7%
Zacks	9.9%
Internal br + sv	9.2%
CAPM	11.7%
Empirical CAPM	11.8%
Utility Risk Premium	10.8%
Expected Earnings	10.8%
Cost of Equity Recommendation	
Cost of Equity Range	10.3-11.3%
Flotation Cost Adjustment	
Flotation Cost Percentage Adjustment	0.08%
ROE Recommended	10.38-11.38%

Q. Do you have any general comments on Company witness McKenzie's methodologies and conclusions?

[75] McKenzie, Exh. AMM-1T at 5: 16-18.

A. Yes. Some of Company witness McKenzie's methodologies are biased in a way that overstates the current and prospective ROE for the proxy group and for Avista. I have previously addressed each of his methodologies and conclusions above.

Q. What is your general assessment of Company's witness McKenzie's conclusion that the required ROE for his proxy group is within a range of 10.38 percent to 11.38 percent?

A. It is apparent that Company witness McKenzie's recommended ROE is excessive. In addition, it is apparent that this recommendation is well outside the range of authorized ROEs approved by state regulatory commissions for electric utilities in recent years, as I cited earlier in my testimony. It is also significant that the currently average authorized ROE for Company witness McKenzie's proxy group is 9.8 percent,[76] which is very similar to the 9.75 percent midpoint of my recommended ROE range for my proxy group.

Q. Do you agree with Company witness McKenzie's proposal to add a 0.08 percent flotation cost adjustment to the ROE results?

A. No, I do not. There has been no demonstration that Avista has or plans a public offering of common stock with the intent of increasing the common equity ratio of Avista Utilities. I note that the issuance of new shares through the dividend reinvestment plan does not incur the same levels of flotation costs as do public offerings. In addition, even if a public offering were to occur, it would be at a price that substantially exceeds the book value of existing stock price, which results in a gain for existing shareholders.

[76] *See*, Exh. DCP-18, Response to Data Request Staff-019. Though not shown on Staff-019, the median authorized ROE for Company witness McKenzie's proxy group is 9.6%.

Flotation costs, to the extent that they occur, are known to investors and thus are reflected in the stock prices of companies. As a result, any effect of flotation costs is incorporated in DCF OE model results. As a result, there is no need to add flotation costs to the results of ROE models, as Company witness McKenzie proposes.

Q. Has the Commission rejected the inclusion of flotation costs for Avista?

A. The Commission rejected Avista's request to include flotation costs in the 2017 general rate case, noting that while flotation costs "may be legitimate adjustments made during the underwriting process" the company did not demonstrate it actually incurred such costs during the test year.[77] In addition, the Commission again rejected Company witness McKenzie's proposed flotation cost adjustment in the 2020 general rate case.[78] Avista has not demonstrated the existence of any such costs in the instant case either.

Q. Do you have any additional comments on Company witness McKenzie's testimony and recommendations in this proceeding?

A. Yes, I do. Company witness McKenzie makes the following claim as support for a higher ROE for Avista:

> "Yields on Baa-rated utility bonds have increased more than 300 basis points since the Commission's order in Dockets UE-200900 and UG-200901 and more than 100 basis points since the Full Multiparty Settlement Stipulation ("Stipulation') in Dockets UE-220053 and UG-220054 (see Table 1). These higher bond yields document a substantial increase in capital costs and support a significant increase in the Company's authorized ROE.[79]

[77] 30 ¶ 76.
[78] *Wash. Util. Transp. Comm'n v. Avista Corp. d/b/a Avista Util.*, Dockets UE-200900, UG-200901 & UE-200894, Final Order 08/05, at 38 ¶ 99 (Sept. 27, 2021).
[79] McKenzie, Exh. AMM-1T at 9:13-18.

It is clear from this statement that Company witness McKenzie is maintaining that recent increases in interest rates, in comparison to interest rates at the time of Avista's two most recent rate proceedings, signifies a substantial increase in the required ROE for the Company.

Q. Is this conclusion consistent with Company witness McKenzie's position regarding the impact of interest rates on required ROE in the two cited Avista proceedings?

A. No it is not consistent. In fact, Company witness McKenzie's recommendations as to the impact of interest rates on the required ROE are the opposite in the prior Avista proceedings versus the current proceeding.

For example, in the Dockets UE-2009900/UG-200901, Company witness McKenzie noted that "Treasury bond yields may be disproportionally impacted by monetary policies, such as quantitative easing, designed with the express purpose of artificially suppressing bond yields."[80]

Company witness McKenzie also noted the following views on the relevance of then-current interest rates on the ROE:

> Q. Do trends in the yields on Treasury notes and bonds accurately reflect the expectations and requirements of the Company's equity investors?
> A. No. While Treasury bond yields provide one indicator of capital costs, they do not serve as a direct guide to the magnitude – or even direction – for changes in the cost of equity for utilities.[81]

Is thus clear that Company witness McKenzie is inconsistent between these respective testimonies. What is being suggested is that the artificially depressed level of

[80] *See*, McKenzie, Exh. AMM-15T at 18: 8-10 in Dockets UE-200901 & UG-200901.
[81] *See*, McKenzie, Exh. AMM-1T at 27: 3-13 in Dockets UE-200900 & UG-200901.

interest rates being used to measure changes between cases (i.e., interest rate yields in 2000 and 2022, when the Federal Reserve monetary policy was artificially pushing interest rates to low levels) is now being used as the "base" for measuring the increase in interest rates since that time. Company witness McKenzie cannot have it both ways. If interest rates at the time of the last two Avista cases did not reflect a "market determined" measure of the cost of debt, then changes since that time cannot reflect a measure of changes in the cost of debt. I also note that the fact that the Federal Reserve is now taking the opposite direction on monetary policy (i.e., artificially inflating interest rates to control inflation) makes Company witness McKenzie's claims even more inconsistent.[82]

Q. **Does this conclude your testimony?**

A. Yes.

[82] Note that McKenzie, Exh. AMM-1T, at 34, Table 1, shows similar both Treasury securities and utility bond yields have changes similarly over this period, such that there is no meaningful distinction between comments on the two types of debt securities.