BEFORE THE WASHINGTON UTILITIES AND TRANSPORTATION COMMISSION

DOCKET NO. UE-240006

DOCKET NO. UG-240007

REBUTTAL TESTIMONY OF

ADRIEN M. MCKENZIE, CFA

REPRESENTING AVISTA CORPORATION

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I. INTRODUCTION

Q. Please state your name and business address.

A. Adrien M. McKenzie, 3907 Red River, Austin, Texas, 78751.

Q. Did you previously submit direct testimony in this case?

A. Yes, I did.

Q. What is the purpose of your rebuttal testimony?

A. The purpose of my rebuttal testimony is to respond to the direct testimonies of David C. Parcell submitted on behalf of the Staff of Washington Utilities and Transportation Commission ("Commission"), David J. Garrett submitted on behalf of the Washington State Office of the Attorney General, Public Counsel Section ("PC"), and Lance D. Kaufman submitted on behalf of Alliance of Western Energy Consumers ("AWEC") concerning a fair ROE that Avista Corp. ("Avista" or "the Company") should be authorized to earn on its investment in providing electric and gas utility service in Washington. My testimony also addresses the ROE comments of Lisa V. Perry submitted on behalf of Walmart, Inc. ("Walmart"). Hereinafter, I refer to these witnesses collectively as the "Other Witnesses."

A. Overview and Summary

Q. Please summarize the ROE recommendations of the Other Witnesses.

A. Mr. Parcell recommends an ROE of 9.50 percent for Avista,[1] while Mr. Garrett recommends an ROE of 8.50 percent[2/3] and Dr. Kaufman recommends an ROE of 9.25

[1] Parcell, Exh. DCP-1T at 6:2.

[2] Garrett, Exh. DJG-1T at 4:8.

[3] Witness David Garrett in his testimony supports a Cost of Equity of 8.5 percent, and that is what I respond to throughout my testimony. However, PC witness Mark Garrett, who supports overall revenue requirement in his electric and natural gas models (Exh. MEG-3, Schedule 3.10 and Exh. MEG-4, Schedule 4.9), uses a ROE of 8.85 percent. Whether the ROE is 8.5 percent or 8.85 percent, my findings remain the same, as outlined in this testimony.

percent.[4] Ms. Perry did not recommend a specific ROE; rather, she recommended that the Commission consider customer impacts, ROEs awarded to other Washington utilities, as well as ROEs awarded by other state regulatory commissions.

Q. What are the principal conclusions of your rebuttal testimony?

A. The ROE recommendations of the Other Witnesses fall below a fair and reasonable level for the Company's electric and gas operations. My rebuttal testimony demonstrates that:

- The Other Witnesses' ROE recommendations fall below accepted benchmarks:
  - Adjusting national authorized ROEs for electric utilities to reflect current capital market conditions implies an ROE of approximately **10.43 percent**.
  - Adjusting ROEs approved by the Commission in prior rate proceedings for increases in bond yields implies a current cost of equity of **10.43 percent**.
  - Adjusting Avista's current ROE to account for changes in capital costs implies a current cost of equity of approximately **10.84 percent**.
  - Expected earned returns for the Other Witnesses' proxy groups fall in the range of approximately **10.0 percent to 10.7 percent**.
- The Other Witnesses' ROE analyses are undermined by errors and methodological flaws, including:
  - Failure to account for significantly higher capital costs, declining creditworthiness, and rising risk exposures, such as wildfires.
  - Errors in the specification of their proxy groups.
  - Unsupported growth rate assumptions in the application of the discounted cash flow ("DCF") model that do not reflect investors' expectations.
  - Capital Asset Pricing Model ("CAPM") studies that rely on historic backward-looking inputs that are not consistent with this method.
  - Subjective and unsupported beta calculations.
  - Failure to account for the impact of firm size in applying the

[4] Kaufman, Exh.LDK-1T at 21:4-5.

CAPM.

- Arbitrary and unsupported exclusion of "outliers" and model results.

Q. What are your principal conclusions regarding the recommendations of Staff witness Parcell?

A. There are key deficiencies in his quantitative applications that lead to a significant downward bias in his conclusions. My rebuttal testimony demonstrates that:

- The screening criteria adopted by Mr. Parcell to arrive at his proxy group are arbitrary, unnecessarily restrict the size of the group, and undermine the reliability of his analyses.
- The flaws in Mr. Parcell's DCF analysis include reliance on historical data; including growth rates based on dividends and book value; his decision to average individual growth rates together and then compute a single DCF estimate for each company; computational shortcomings in his retention growth calculation; and subjectively excluding a 10.6 percent DCF result as an "outlier," while retaining values in the 7 percent range.
- Mr. Parcell's CAPM analysis also contains numerous flaws, most notably his reliance on historical data when the ROE estimation process is clearly forward-looking; adopting an improper methodology to calculate his historic market risk premium ("MRP"); reference to geometric means, which will always bias results downward; failure to account for the impact of firm size; and subjectively excluding a 10.7 percent CAPM result as an "outlier."
- Mr. Parcell's Comparable Earnings ("CE") approach also contains significant shortcomings due primarily to his repeated fault of relying on historical data in a process that is forward-looking; his problematic consideration of market-to-book ("M/B") ratios in his CE analysis, and his failure to apply an essential mid-year adjustment factor.
- My rebuttal testimony demonstrates that Mr. Parcell's risk premium approach is undermined by subjective bias due to his selective exclusion of available data.
- Finally, I respond to Mr. Parcell's misguided contention that Avista should not be offered an opportunity to recover flotation costs, which are a legitimate expense incurred to provide the equity capital.

Q. What are your principal conclusions regarding the recommendations of PC witness D. Garrett?

A. Mr. Garrett's 8.50 percent ROE is extreme and the Commission should reject his conclusions and recommendations in their entirety. My rebuttal testimony demonstrates that:

- Mr. Garrett's DCF approach is compromised because he ignores projected earnings growth rates, which are widely and recognized as a superior basis to apply the DCF model; he relies on a "sustainable" growth DCF model that wrongly assumes investors anticipate every firm in the electric utility industry to mimic a long-term growth forecast for gross domestic product ("GDP"); he fails to screen his DCF result to remove illogical estimates.
- PC witness Garrett's CAPM application is compromised due to unreliable, illogical, and undocumented inputs, reliance on historical data that is inconsistent with the assumptions of this method, and failure to incorporate the size adjustment.
- Mr. Garrett's suggestion that Avista's capital structure would distinguish Avista's overall investment risk from other electric utilities is incorrect, and his "Hamada" adjustment to his CAPM results is deeply flawed and should be given no weight.
- PC witness Garrett's analysis is also undermined by his failure to apply the risk premium approach, which is a widely recognized methodology.

Q. What are your principal conclusions regarding the recommendations of AWEC witness Kaufman?

A. Dr. Kaufmann's suggestion that Avista's ROE should be reduced from 9.40 percent to 9.25 percent makes no economic sense, in light of the objective evidence that investors' required rate of return has increased significantly since the Company's last litigated rate proceeding. Apart from the fact that Dr. Kaufman's recommendation violates fundamental financial principles, my rebuttal testimony demonstrates that:

- The hodge-podge of return benchmarks cited by Dr. Kaufman are nonsensical and provide no meaningful basis to evaluate a fair ROE for Avista.

- There is no support for the assumptions of Dr. Kaufman's three-stage DCF model, which has no demonstrable connection to the expectations of investors.

- Like PC witness Garrett, Dr. Kaufman's constant growth DCF application is based on the misguided notion that investors expect growth for all utilities to converge to a long-term forecast of growth in GDP, which is the same fundamental flaw that undermines AWEC's three-stage DCF analysis.

- The Commission should reject Dr. Kaufman's subjective and results-oriented beta calculations, which run counter to those published by reputable source relied on be investors, subjectively ignore representative data, and incorporate unsupported adjustments.

- The two MRPs Dr. Kaufman used to apply the CAPM either lack any clear foundation or were based on illogical modifications to my methodology, which was predicated on the approach adopted by the Federal Energy Regulatory Commission ("FERC"). In addition, Dr. Kaufman's CAPM results are downward-biased because he fails to account for the implications of firm size.

Q. What are your principal conclusions regarding the recommendations of Walmart witness Perry?

A. While Ms. Perry does not conduct any analysis or provide an explicit ROE recommendation, she expresses concern over Avista's ROE request based on a comparison with historical allowed ROEs and consideration of customer impacts. My rebuttal testimony demonstrates that:

- Comparisons with historical allowed ROEs, such as those cited by Ms. Perry, are overly simplistic and fail to account for the significant increase in long-term capital costs documented by objective capital market data.

- The cost of equity is established in competitive capital markets, and Ms. Perry's suggestion that Avista's ROE might be artificially suppressed to minimize customer impacts ignores the requirements of regulatory standards, as well as the long-term harm that can result if investor confidence is undermined.

Finally, my rebuttal testimony demonstrates that the Other Witnesses' criticisms of my analyses are without merit.

Q. Can you summarize how the ROE recommendations of the Other Witnesses stack up against comparable benchmarks?

A. Yes. Figure AMM-R1 below compares the Other Witnesses' ROE recommendations to the benchmarks supported in my rebuttal testimony.

FIGURE AMM-R1
ROE BENCHMARK COMPARISON

(a) Average of national ROEs for 2020-2024Q1 adjusted for current interest rates from Exh. AMM-16.
(b) Commission-approved ROEs adjusted for current interest rates from Exh. AMM-17.
(c) Expected earned rates of return for proxy groups used by Other Witnesses from Exh. AMM-18.
(d) Approved ROE for Avista from UE-200900 adjusted for current interest rates from Exh. AMM-17.

As illustrated above, the 8.50 percent to 9.50 percent ROE recommendations of the Other Witnesses fall approximately 93 to 193 basis points below national average authorized ROEs, once adjusted for current interest rates. This ROE disparity is even more evident when considering that utility bond yields have *increased* approximately 250 basis points since the Commission approved an ROE of 9.40 percent for Avista in its last litigated rate proceeding. These benchmarks illustrate that the Other Witnesses' ROE recommendations violate the

economic and regulatory standards underlying a fair ROE, while confirming the reasonableness of the 10.40 percent ROE requested by Avista.

B. The Other Witnesses' ROE Recommendations Violate Economic Principles

Q. What is the basic conceptual framework underlying the cost of capital?

A. The cost of capital is premised on the concept that a dollar today is worth more than a dollar in the future. The time value of money is a core principle of finance, and it applies equally to investments in debt and equity securities. For both debt and equity securities, the return required by investors can be conceptualized as a sum of several building blocks, including 1) a risk-free rate to compensate for foregoing current consumption, 2) a risk premium to account for uncertainty over the timing and payment of future cash flows, and 3) a premium to compensate for the erosion in purchasing power due to expected price inflation.

Q. Are there readily available benchmarks for general changes in capital costs?

A. Yes. The yields on 30-year Treasury bonds are accepted as a guide to the risk-free rate. While yields on long-term Treasury bonds can be impacted by monetary policy (e.g., quantitative easing) or a flight to safety in times of turmoil, they provide a directly observable benchmark for underlying trends in capital costs. Similarly, utility bonds are actively traded in the debt markets and the resulting yields offer a touchstone for the direction and magnitude of the return utilities must offer to attract capital. Although not specific to long-term capital costs, the target range for the Federal Funds rate established by the Federal Reserve is also widely followed by investors as a metric for monetary policies and underlying capital market conditions.

Q. Do the Other Witnesses agree that these benchmarks are relevant indicators in evaluating the cost of equity?

A. Yes. Mr. Parcell references Treasury yields and utility bond yields extensively in his testimony.[5] He also identifies "The level and trend of interest rates" as one factor that "has an influence on the [cost of capital],"[6] and he cites to the Federal Funds rate numerous times.[7] Dr. Kaufman also references Treasury yields in his testimony.[8] Meanwhile, Treasury yields and utility bond yields serve as direct inputs in the Other Witnesses' CAPM, ECAPM and risk premium models.[9] The Other Witnesses clearly recognize the relevance of these interest rate benchmarks as indicators of current capital costs.

Q. How have these key indicators of capital costs trended since Avista's prior rate proceedings?

A. As I established in my direct testimony,[10] trends in bond yields since the Stipulation in Avista's last rate proceeding and the Commission's order in Dockets UE-200900 and UG-200901 document a substantial increase in the returns on long-term capital demanded by investors. Table AMM-R1 below illustrates that the trends in key capital cost indicators identified in my direct testimony have been sustained:

[5] Parcell, Exh. DCP-1T at 5:22-6:1, 12:5-16, 42:20-43:13, 56:8-59:17, Parcell, Exh. DCP-4 at 2.
[6] *Id.* at 10:3-7.
[7] *Id.* at 14:1-17:2.
[8] Kaufman, Exh.LDK-1T at 33, footnote 43.
[9] Parcell, Exh. DCP-1T at 40:2-41:7, 56, Parcell, Exh. DCP-10, Parcell, Exh. DCP-16; Kaufman, Exh.LDK-1T at 46:8-9, 52, Kaufman, Exh.LDK-5 at 9-12; Garrett, Exh. DJG-1T at 28:9-19, Garrett, Exh. DJG-8, Garrett, Exh. DJG-12.
[10] McKenzie Direct at 34-35.

TABLE AMM-R1
KEY CAPITAL COST INDICATORS

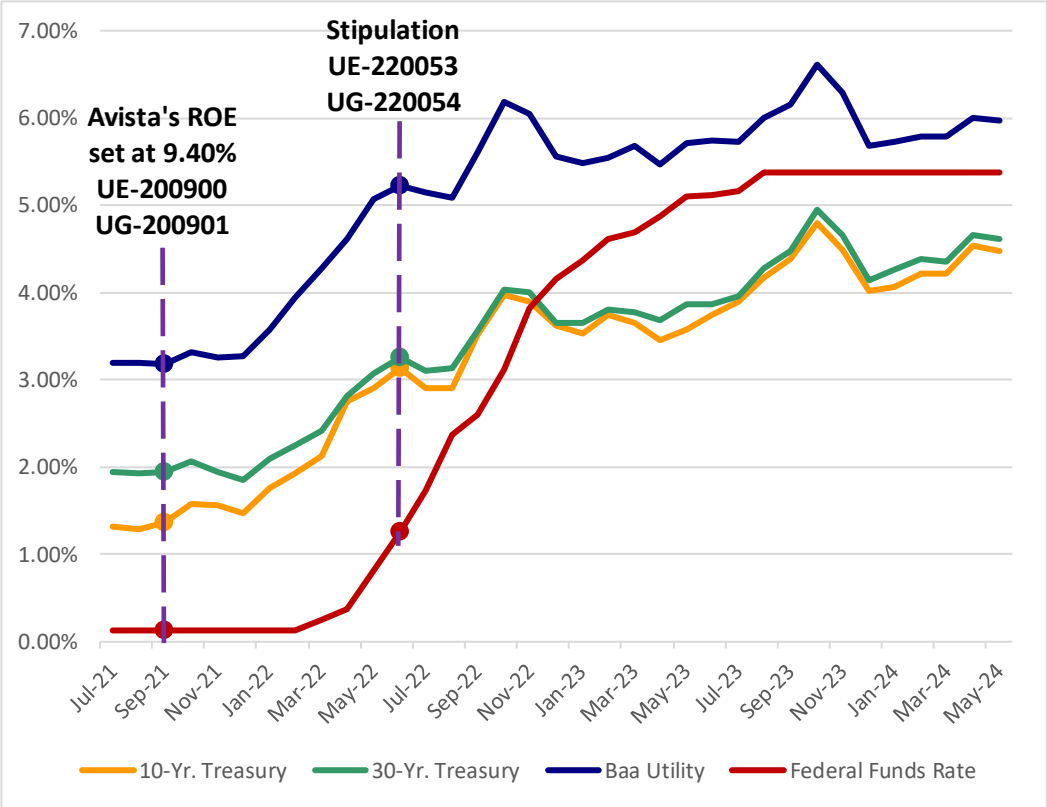
Series	(a) Sep. 2021	(b) Jun. 2022	Change (bp)	Jun. 2024	Change (bp)
Bond Yields					
10-Yr. Treasury Yield	1.37%	3.14%	177	4.31%	117
30-Yr. Treasury Yield	1.94%	3.25%	131	4.44%	119
Baa Utility Bond Yield	3.19%	5.22%	203	5.83%	61
Average	**2.17%**	**3.87%**	**170**	**4.86%**	**99**
Federal Funds Rate	**0.13%**	**1.25%**	**113**	**5.38%**	**413**

Sources: https://fred.stlouisfed.org/; Moody's Investors Service;
(a) Final Order 08/05 issued in Dockets UE-200900 and UG-200901 on September 27, 2021, and resolved a contested ROE.
(b) Full Multiparty Settlement Stipulation in Dockets UE-220053 and UG-220054 was filed with the WUTC on June 28, 2022.

As shown above, key interest rate benchmarks cited by the Other Witnesses indicate that investors' required return on debt securities has increased an average of 170 basis points from September 2021 to June 2022, and another 99 basis points to June 2024. The midpoint of the Federal Reserve's target range for the Federal Funds rate has increased 113 basis points from September 2021 to June 2022, and another 413 basis points to June 2024. These trends are also consistent with Mr. Parcell's observation that the Federal Reserve's increases in the Federal Funds rate, which began in 2022, have "had a somewhat significant impact on short-term interest rates and also impacted longer-term interest rates."[11] The trends documented in Table AMM-R1 above are illustrated in more detail in Figure AMM-R2 below:

[11] Parcell, Exh. DCP-1T at 15:18-20.

FIGURE AMM-R2
BOND YIELD TRENDS



Source: https://fred.stlouisfed.org/; Moody's Investors Service.

As is evidence in Figure AMM-R2, bond yields have increased markedly since the 9.40 percent ROE was established by the Commission in September 2021.

Q. Mr. Parcell presents data on inflation and utility bond yields which he says are "indicative of a declining cost of equity capital."[12] Is he correct?

A. No. Mr. Parcell shows that inflation, as measured by the Consumer Price Index ("CPI") and average yields on A-rated utility bonds have trended downward over five business cycles beginning in 1975, but his data end in 2020, and so they do not capture the recent

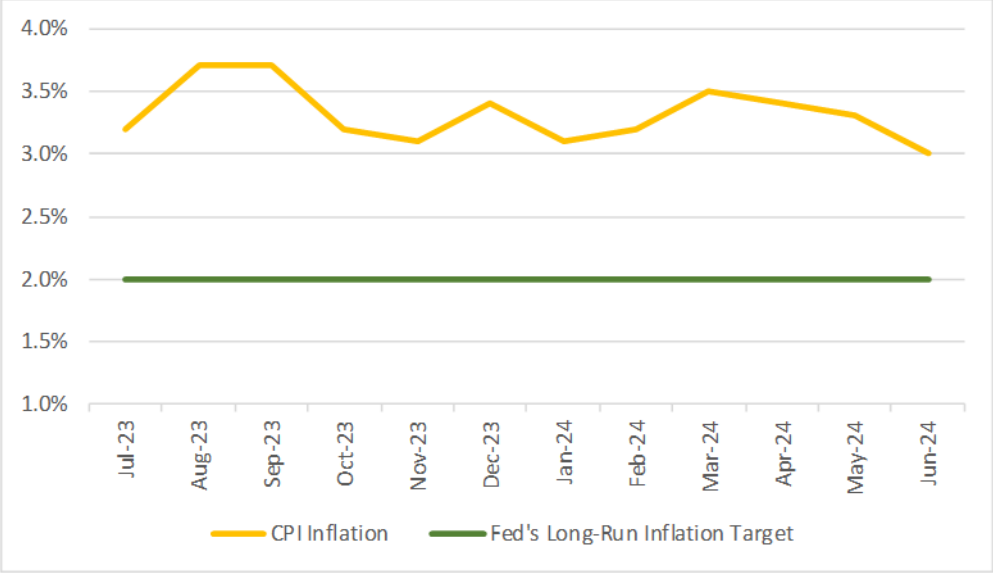
[12] *Id.* at 12:17.

increase in capital costs, as shown above in Table AMM-R1 and Figure AMM-R2.

Q. Is inflation still well above the Federal Reserve's long-run target?

A. Yes. This can be seen in Figure AMM-R3 below, which shows CPI inflation over the past twelve months, as compared with the Federal Reserve's 2 percent inflation target.

FIGURE AMM-R3
CPI INFLATION RATE



Source: https://www.bls.gov/bls/news-release/cpi.htm.

As the figure above clearly shows, CPI inflation has not been on a downward trend in recent months, and it remains well above the Federal Reserve's target long run inflation rate of 2 percent. As Chairman Power recently stated, "The inflation data received earlier this year were higher than expected," and, "If the economy remains solid and inflation persists, we're prepared to maintain the current range for the federal funds rate as long as appropriate."[13]

[13] Federal Reserve, *Transcript of Chair Powell's Press Conference* (Jun 12, 2024). https://www.federalreserve.gov/mediacenter/files/FOMCpresconf20240612.pdf.

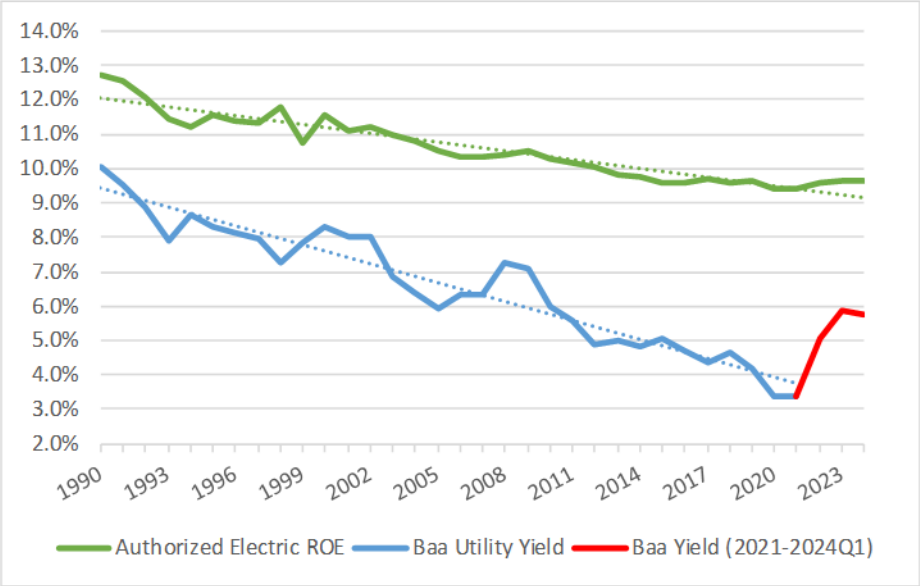
Q. Do historical allowed ROEs, such as those cited by Mr. Parcell and Ms. Perry,[14] provide a direct guide to capital market trends and investors' required returns?

A. No. The data on which these historical allowed ROEs were based does not reflect investors' current requirements. As I discussed in my direct testimony,[15] a review of trends in key indicators since 2021 and the evidence presented in Table AMM-R1 and Figure AMM-R2 above supports a finding that capital market conditions have changed dramatically, and recent historical allowed ROEs significantly understate investors' current required returns.

The disconnect between historically allowed ROEs and the recent increase in capital costs is illustrated in the figure below. As shown there, authorized ROEs declined steadily from 1990 until 2021, in line with falling interest rates. While the decline in ROEs was more gradual than the decrease in bond yields, this is to be expected. As noted in my direct testimony and discussed in greater detail below, financial research supports the conclusion that equity risk premiums rise as bond yields decline, which partially offsets the decline in capital costs measured by changes in interest rates.

[14] Parcell, Exh. DCP-1T at 13:1-11; Perry Direct at 9-16.
[15] McKenzie Direct at 29-37.

FIGURE AMM-R4
TRENDS IN AUTHORIZED ELECTRIC ROES AND BOND YIELDS



Source: Allowed ROEs from Exhibit AMM-11, page 2, updated to reflect 2023 and 2024Q1. Baa Utility bond yields from Moody's Investors Service and Mergent Public Utility Manual.

As the chart above demonstrates, the upward shift in capital costs that began in 2022 has been swift and dramatic. While it took 22 years for interest rates to fall by one-half,[16] the Baa utility bond yield almost doubled in just 22 months.[17] Figure AMM-R4 also clearly shows that although allowed ROEs made a modest move upward in 2023, they do not yet reflect the sharp increase in utility bond yields that has occurred since early 2022. As RRA recently noted:

> [E]lectric and gas authorized ROEs are trending modestly higher as the high-interest-rate environment begins to impact authorized ROEs. The effect of interest rate increases on authorized returns is not proportional, however, as

[16] In 1990 the average yield on Baa utility bonds was 10.06 percent. It wasn't until 2012 that the average yield fell below 5.03 percent.
[17] During December 2021, the yield on Baa utility bonds averaged 3.27 percent. Over the six months ending December 2023, monthly average bond yields ranged from 5.68 percent to 6.61 percent.

> regulators are slower to adjust ROEs upward than downward, and affordability concerns persist as regulators contend with customer rate increases stemming from significant but necessary capital investment in the energy transition during a period of high inflation.[18]

Similarly, a recent Wall Street Journal article highlighted the cost pressures faced by utilities and noted that, "Investors should exercise caution when picking up utility stocks."[19] As the article observed, "Higher interest rates haven't only increased debt-financing costs for utility companies but also raised the cost of capital that they are expected to deliver." Meanwhile, Value Line noted that historical allowed ROEs are "based on a historically low and now out-of-date cost of capital."[20] Value Line advised electric utility investors that, "New commitments should only be made when the midpoint of our annual total return projection is at or above 12%."[21]

Q. What is the obvious conclusion from this observable evidence?

A. The cost of capital—both debt and equity—has increased significantly since Avista's currently authorized ROE of 9.40 percent was set by the Commission's September 2021 order in Dockets UE-200900 and UG-200901.

Q. Have there been any changes in the risks of utilities or Avista that might offset this clear upward move in the cost of capital?

A. No. My direct testimony documented the increasing challenges faced by electric and gas utilities,[22] with S&P revising its outlook on the utility sector to "negative" in

[18] S&P Global Market Intelligence, *Major energy rate case decisions in the US – January-March 2024*, Regulatory Focus (Apr. 19, 2024).
[19] Jinjoo Lee, *Utilities Get an Inflation Shock*, Wall Street Journal (Jan. 3, 2024). https://www.wsj.com/finance/investing/utilities-get-an-inflation-shock-cb821c4e.
[20] The Value Line Investment Survey, *Electric Utility (East) Industry* (May 10, 2024).
[21] *Id.*
[22] McKenzie Direct at 29-37.

February 2024, noting that, "Credit quality for North American investor-owned regulated utilities has weakened over the past four years, with downgrades outpacing upgrades by more than three times.[23] Similarly, Fitch concluded that its "deteriorating outlook" for the utility sector "reflects continuing macroeconomic headwinds and elevated capex that are putting pressure on credit metrics in the high-cost funding environment."[24] Meanwhile, Avista's credit ratings have remained unchanged, with S&P currently assigning a "negative" outlook to the Company, warning investors of a potential downgrade to its BBB rating.[25] There is no evidence that the significant increase in capital costs since the final order was issued in Dockets UE-200900 and UG-200901 has been moderated by declining risk in the utility industry generally, or for Avista specifically.

Q. What other considerations have impacted investors' assessment of the risks associated with Avista's common stock?

A. As documented at length in my direct testimony,[26] investors have become increasingly concerned over the exposure posed by wildfires. Warren Buffet highlighted the risks to electric utility investors in his annual letter to shareholders, observing that:

> [T]he regulatory climate in a few states has raised the specter of zero profitability or even bankruptcy (an actual outcome at California's largest utility and a current threat in Hawaii). In such jurisdictions, it is difficult to project both earnings and asset values in what was once regarded as among the most stable industries in America. . . . It will be many years before we know

[23] S&P Global Ratings, *Rising Risks: Outlook For North American Investor-Owned Regulated Utilities Weakens*, Comments (Feb. 14, 2024).
[24] Fitch Ratings, Inc., *North American Utilities, Power & Gas Outlook 2024* (Dec. 6, 2023).
[25] S&P noted that "Avista's weakening financial performance will cause its metrics to fall below our downgrade thresholds because of inflation, rising interest rates, and regulatory lag." S&P Global Ratings, *Avista Corp.'s Rising Risk Of Wildfires Is Negative For Credit Quality*, RatingsDirect (Aug. 22, 2023).
[26] McKenzie, Exh. AMM-1T at 12:16-14:11.

> the final tally from . . . forest-fire losses and can intelligently make decisions about the desirability of future investments in vulnerable western states.[27]

As Mr. Buffet concluded, "the final result for the utility industry may be ominous."[28]

Similarly, S&P recently highlighted increasing physical risk in the electric utility industry, noting that, "Climate change and an increase in wildfire risks are threatening credit quality."[29] S&P cautioned investors that, "Since 2020, the number of structures destroyed by wildfires in Colorado, Hawaii, Idaho, Oregon, Washington, and Texas have all increased by more than 100% compared to 2016-2019."[30] Thus, Avista's ongoing exposure to wildfires heightens investors' overall risk profile and the Company's need to buttress its financial strength.

Q. Are the ROE recommendations of the Other Witnesses consistent with the increase in risk exposures and capital costs documented above?

A. No. The Other Witnesses do not address the implications of declining utility credit ratings, increased financial pressures, or the heightened risk posed by wildfires. Nor do their ROE recommendations reflect the significant upward trend in capital costs since Avista's last litigated rate proceedings. Mr. Parcell's 9.50 percent recommendation reflects a meager 10 basis point increase in Avista's ROE, while the recommendations of Dr. Kaufman and Mr. Garrett imply a *reduction* in Avista's ROE of 15 and 90 basis points, respectively. With Baa utility bond yields now over 260 basis points higher than they were in September 2021, it

[27] Berkshire Hathaway Inc., *Shareholder Letters* (Feb. 24, 2024). https://www.berkshirehathaway.com/letters/2023ltr.pdf (last visited Apr. 25, 2024).
[28] *Id.*
[29] S&P Global Ratings, Rising Risks: *Outlook For North American Investor-Owned Regulated Utilities Weakens*, RatingDirect (Feb. 14, 2024).
[30] *Id.*

stands to reason that the Company's ROE is now substantially higher.

Q. Are PC's and AWEC's ROE recommendations particularly concerning?

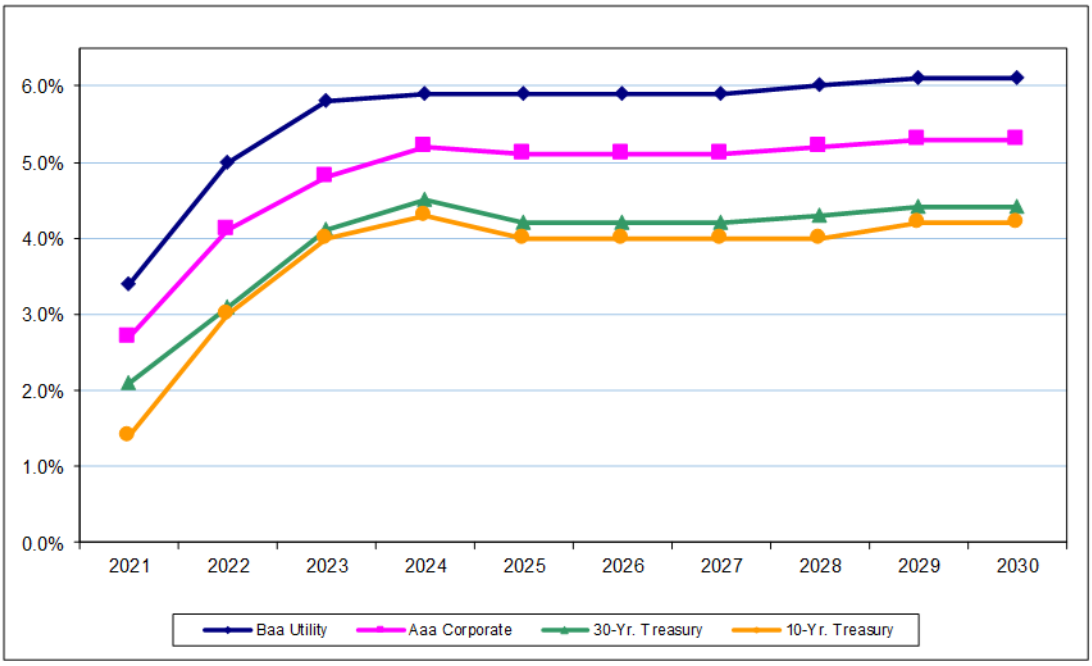
A. Yes. While the cost of equity does not move one-for-one in lockstep with interest rates,[31] it is inconceivable that Avista's ROE could have decreased when other capital costs have increased significantly. This evidence demonstrates that the ROE recommendations of PC and AWEC are unmoored from fundamental principles of finance and violate the basic, common-sense relationship between interest rates and the cost of equity. Objective data contradict Mr. Garrett's and Dr. Kaufman's ROE recommendations.

Q. Staff references "expectations by investors that interest rates are expected to decline."[32] Do independent forecasts support this view?

A. No. As illustrated in Figure AMM-R5 below, the most recent long-term consensus projections from top economists published by Blue Chip document that long-term bond yields are expected to remain elevated when compared to recent historical levels.

[31] The evidence presented in my direct testimony indicates that allowed electric ROEs tend to increase about 57 basis points for every 100 basis point increase in utility bond yields. See Exh. AMM-11.
[32] Parcell, Exh. DCP-1T at 16:19-20.

FIGURE AMM-R5
PROJECTED INTEREST RATES



Source: Wolters Kluwer, Blue Chip Financial Forecasts (Jun. 1, 2024); Moody's Investors Service; https://fred.stlouisfed.org/.

This evidence contradicts Mr. Parcell's assertion and shows that long-term capital costs—including the ROE—have increased substantially, and that investors expect these higher capital costs to be sustained at least through 2030. The Other Witnesses' ROE recommendations fail to account for these realities.

Q. Does the prospect for changes in monetary policy over the coming year change this conclusion?

A. No. At the conclusion of its June 2024 meeting, the FOMC indicated that the participants anticipate that the appropriate level of the Federal funds rate will be 5.1 percent at the end of 2024, declining to 3.1 percent by the end of 2026.[33] This potential easing of

[33] Federal Reserve, *Summary of Economic Projections* (Jun 12, 2024). https://www.federalreserve.gov/monetarypolicy/files/fomcprojtabl20240612.pdf.

monetary policy presumably reflects the FOMC's view that inflation will be sustainably reduced to its target level of 2 percent. But as Chair Powell has repeatedly noted, "Longer-term inflation expectations appear to remain well anchored."[34] In other words, expected inflation rates incorporated into long-term bond and equity costs did not approach recent historical changes in the CPI, and the impact of any moderation in the Federal Reserve's policy rate would be subdued. This is consistent with the forecasts of leading economists illustrated in Figure AMM-R5, and any expectations of future declines in the federal funds rate on the part of market participants are already incorporated into current bond yields.

Moreover, while Chair Powell has observed that the Federal Funds rate "is likely at or near its peak for this tightening cycle," he has also stressed that "the economy has surprised forecasters in many ways"[35] and made clear that, "We will need to see more good data to bolster our confidence that inflation is moving sustainably toward 2 percent."[36] Reuters reported that Federal Reserve Bank of Dallas President Lorie Logan "is still worried about upside risks to inflation" and concluded "it's too soon to really be thinking about rate cuts."[37] Similarly, CNBC noted that Federal Reserve Governor Michell Bowen states that "the time is not right yet to start lowering interest rates, adding that she would be open to raising if inflation

[34] Federal Reserve, *Transcript of Chair Powell's Press Conference* (Jun 12, 2024). https://www.federalreserve.gov/mediacenter/files/FOMCpresconf20240612.pdf. *See also,* Federal Reserve, *Transcript of Chair Powell's Press Conference* (Dec. 14, 2022, Sep. 21, 2022). https://www.federalreserve.gov/monetarypolicy/fomccalendars.htm.

[35] Federal Reserve, *Transcript of Chair Powell's Press Conference* (Dec. 13, 2023). https://www.federalreserve.gov/mediacenter/files/FOMCpresconf20231213.pdf.

[36] Federal Reserve, *Transcript of Chair Powell's Press Conference* (Jun 12, 2024). https://www.federalreserve.gov/mediacenter/files/FOMCpresconf20240612.pdf.. *See also,* Federal Reserve, *Transcript of Chair Powell's Press Conference* (Dec. 14, 2022, Sep. 21, 2022). https://www.federalreserve.gov/monetarypolicy/fomccalendars.htm.

[37] Ann Saphir and Michael S. Derby, *Fed Official see inflation falling, signal no rush to cut rates*, Reuters (May 30, 2024). https://www.reuters.com/markets/us/feds-williams-monetary-policy-well-positioned-lower-inflation-2024-05-30/ (last visited Jun. 20, 2024).

doesn't pull back."[38] As Chair Powell recently concluded, "we don't think it'll be appropriate to reduce rates and begin to loosen policy until we have more confidence that inflation is moving back down to 2 percent on a sustainable basis.."[39]

Q. What do the facts indicate with regard to the Other Witnesses' ROE recommendations?

A. In light of these documented recent trends and forward-looking expectations of recognized capital cost benchmarks, the ROE recommendations of the Other Witnesses are demonstrably insufficient. Despite the fact that interest rates have increased substantially—which means the cost of equity has climbed—Staff is arguing that Avista's ROE should be increased by a scant 10 basis points, while PC and AWEC are arguing that for a reduction. These outcomes are not credible and would violate accepted principles of finance. The Commission should reject Mr. Garrett's and Dr. Kaufman's ROE recommendations in particular on this basis.

Q. Mr. Parcell accuses you of being inconsistent regarding your assessment of how interest rates impact required ROEs.[40] Is there any merit to this allegation?

A. No. In 2021 Mr. Parcell argued that "it cannot be maintained that low interest rates . . . are temporary and do not reflect investor expectations."[41] I disagreed with Mr. Parcell's position then, because as documented in my testimony, the prevailing view was that

[38] Jeff Cox, *Fed Governor Bowen says she's still open to raising rates if inflation doesn't improve* (Jun. 25, 2024). https://www.cnbc.com/2024/06/25/fed-governor-bowman-says-shes-still-open-to-raising-rates-if-inflation-doesnt-improve.html (last visited Jun. 20, 2024).
[39] Federal Reserve, *Transcript of Chair Powell's Press Conference* (Jun. 12, 2024). https://www.federalreserve.gov/mediacenter/files/FOMCpresconf20240612.pdf.
[40] Parcell, Exh. DCP-1T at 65-66.
[41] Washington Utilities and Transportation Commission, Dockets UE-200900, et al., Parcell, Exh. DCP-1T at 56.

bond yields would increase dramatically over the 2021-2025 period.[42] At that time, Blue Chip was projecting that the 30-year Treasury yield would increase from 1.8 percent in 2021 to 3.1 percent in 2025. In fact, the actual increase in bond yields has far outstripped those projections.

As documented in Figure AMM-R5, the widespread expectation of a dramatic shift in bond yields that characterized capital markets in 2020 and 2021 is no longer evident. Thus, there is no basis to question the ability of current bond yields to reflect investors' required capital costs in the immediate future. Similarly, I stand by my prior testimony that a singular focus on Treasury bond yields does not always provide a meaningful guide to returns for other asset classes, such as utility bonds and stocks. In times of heightened uncertainty, for example, Treasury bond yields may decline due to a "flight to safety," while such "risk-off" behavior implies higher returns for more risky assets, such as common stocks. But the economic environment has changed since the height of the COVID-19 pandemic in 2020-2021, as have financial markets and Federal Reserve policies.[43]

Finally, as much as it saddens me, there is no indication that the Commission's 9.40 percent ROE determination in Docket UE-200900 was influenced by my protestations regarding the implications of Federal Reserve monetary policies and interest rate projections in 2020-2021. In fact, the Commission suggested that my testimony in that proceeding "overly relies on higher risk projections as being more indicative of future results," and

[42] Washington Utilities and Transportation Commission, Dockets UE-200900, et al., McKenzie, Exh. AMM-15T at 19:1-15.

[43] For example, in April 2021 the Federal Reserve was continuing to increase its holdings of Treasury securities by at least $80 billion per month and of agency mortgage-backed securities by at least $40 billion per month. https://www.federalreserve.gov/newsevents/pressreleases/monetary20210428a.htm (last visited Jul. 26, 2024).

concluded that, "We do not observe. . . any evidence in the record that persuades us there is yet any indication warranting a speculative upward adjustment of ROE based on fear that utility betas or interest rates will change precipitously to the detriment of regulated utilities."[44] As a result, contrary to Mr. Parcell's suggestion, looking to changes in bond yields, and in particular yields on utility bonds, provides a sound basis of comparison.

C. The Other Witnesses' ROE Recommendations Fail Benchmark Tests

Q. Do allowed ROEs provide a benchmark to evaluate whether the recommended equity returns in this case are sufficient to meet regulatory standards?

A. Yes. Allowed ROEs provide a gauge of reasonableness for the outcome of a cost of equity analysis. In considering utilities with comparable risks, investors will always prefer to provide capital to the opportunity with the highest expected return. If a utility is unable to offer a return similar to that available from other investment opportunities of equivalent risks, investors will become unwilling to supply the utility with capital on reasonable terms.

Q. Do Staff and Walmart agree that allowed ROEs for other utilities are relevant to the evaluation of a just and reasonable ROE for Avista?

A. Yes. For example, Mr. Parcell cites to recent nationwide authorized electric and gas ROEs in his testimony.[45] Similarly, Ms. Perry cites to recent electric and gas ROEs approved by the Commission, as well as average authorized electric and gas ROEs nationwide.[46] These references indicate that Staff and Walmart believe authorized ROEs are

[44] Washington Utilities and Transportation Commission, Dockets UE-200900, et al., Final Order 08/07 at 41.
[45] Parcell, Exh. DCP-1T at 12:16-13:11.
[46] Perry, Exh. LVP-1T at 9-16.

relevant to evaluate to an evaluation of Avista's cost of capital.

Q. Do the historical allowed ROEs cited by Mr. Parcell and Ms. Perry provide a direct guide to a fair ROE for Avista under current capital market conditions?

A. No. The data on which these historical allowed ROEs were based does not reflect investors' current requirements. As I have previously discussed, a review of trends in key indicators since 2021 and the evidence presented in Table AMM-R1 and Figures AMM-R2, AMM-R4, and AMM-R5 above supports a finding that capital market conditions have changed dramatically, and recent historical allowed ROEs significantly understate investors' current required returns.

Q. After adjusting for current financial market conditions, what does a comparison with recent allowed ROEs indicate with respect to the ROE recommendations and comments of the Other Witnesses?

A. It demonstrates that Mr. Parcell's, Mr. Garrett's and Dr. Kaufman's recommendations significantly understate Avista's cost of equity in today's capital markets, and that Ms. Perry's comments lack proper context. This is shown on Exhibit AMM-16. On this exhibit I subtract the average Baa utility bond yield corresponding to the average allowed ROE for vertically integrated electric utilities reported by RRA to compute the implied risk premium. As discussed in my direct testimony,[47] the equity risk premium expands as interest rates decline and contracts as interest rates rise. Accordingly, I adjusted historical risk premiums to reflect the fact that interest rates are now higher than those corresponding to the average allowed ROEs.

[47] McKenzie, Exh. AMM-3 at 24:12-25:20.

As shown on Exhibit AMM-16, adjusting historical average allowed ROEs from 2020 to Q1 2024 to reflect current capital market conditions results in an implied cost of equity of 10.43 percent for vertically integrated electric utilities. This result confirms that the Other Witnesses' ROE recommendations are insufficient, and it illustrates that direct comparisons between Avista's cost of equity and ROEs authorized for other utilities in recent years look very different after properly accounting for current capital costs.

Q. Do past ROEs approved by the Commission also demonstrate that the Other Witnesses' ROE recommendations are far too low?

A. Yes. Ms. Perry cites to ROEs approved for various Washington electric and gas utilities in cases dating back to 2021.[48] Explicit consideration of bond yield increases since the conclusion of these rate proceedings further highlights the inadequacy of the Other Witnesses' ROE recommendations.

Data for the two electric cases and four gas cases referenced by Ms. Perry are displayed in Exhibit AMM-17. After adjusting for changes in bond yields, the current ROEs implied by the findings in those cases range from 9.86 percent to 10.85 percent, and average 10.43 percent. Once adjusted for today's higher capital costs, these prior ROE findings for Washington utilities provide additional confirmation that the ROEs proposed by the Other Witnesses are understated.

Q. What would Avista's currently authorized ROE of 9.40 percent equate to in today's capital markets?

A. After adjusting for current financial market conditions, Avista's currently

[48] Perry, Exh. LVP-1T at 10, 14.

approved ROE of 9.40 percent, which was authorized in September 2021, would be substantially higher. The calculation supporting this conclusion is presented on Exhibit AMM-17. The average yield on Baa utility bonds during Avista's last rate proceeding was 3.33 percent, and it is now 5.83 percent. Adding the adjusted risk premium of 5.01 percent to the average Baa utility bond yield in June 2024 of 5.83 percent results in an implied cost of equity of 10.84 percent for Avista in today's capital markets. This benchmark calculation supports Avista's 10.40 percent ROE request. Even allowing for Staff's view of "gradualism,"[49] this data further demonstrates that the ROE recommendations of the Other Witnesses are far too low.

Q. What other evidence demonstrates that the ROE proposals of Mr. Garrett and Dr. Kaufman are particularly extreme?

A. The ROE recommendations of PC and AWEC are also below the current average allowed returns reported to investors for the utilities in their respective proxy groups. Current authorized rates of return for the utilities in Mr. Garrett's and Dr. Kaufman's proxy groups, as reported by Value Line, are summarized in the table below:

[49] Parcell, Exh. DCP-1T at 6:3-4, 26:3-4, 60:16-61:2.

TABLE AMM-R2
PROXY GROUP ALLOWED ROES

Proxy Group	Allowed ROE	Recommended ROE
Garrett	9.87%	8.50%
Kaufman	9.85%	9.25%
Average	**9.86%**	**8.88%**

Source: The Value Line Investment Survey (Apr. 19, May 10 and Jun. 7, 2024).

While these historical ROEs do not reflect the higher returns required under current capital market conditions, they provide further confirmation that the ROE recommendations of PC and AWEC are insufficient.

Q. What other benchmark indicates that the Other Witnesses' recommended ROEs are too low?

A. Expected earned rates of return for other utilities provide another useful benchmark of reasonableness. The expected earnings approach is predicated on the comparable earnings test, which developed as a direct result of the Supreme Court decisions in *Bluefield*[50] and *Hope*.[51] This test recognizes that investors compare the allowed ROE with returns available from other alternatives of comparable risk.

Importantly, the expected earnings approach explicitly recognizes that regulators do not set the returns that investors earn in the capital markets. Regulators can only establish the allowed return on the value of a utility's investment, as reflected on its accounting records. As a result, the expected earnings approach provides a direct guide to ensure that the allowed

[50] *Bluefield Water Works & Improvement Co. v. Pub. Serv. Comm'n*, 262 U.S. 679 (1923) ("*Bluefield*").
[51] *Fed. Power Comm'n v. Hope Natural Gas Co.*, 320 U.S. 591 (1944) ("*Hope*").

ROE is similar to what other utilities of comparable risk will earn on invested capital. This opportunity cost test does not require theoretical models to indirectly infer investors' perceptions from stock prices or other market data. As long as the proxy companies are similar in risk, their expected earned returns on invested capital provide a direct benchmark for investors' opportunity costs that is independent of fluctuating stock prices, market-to-book ratios, debates over growth rates, or the limitations inherent in any theoretical model of investor behavior.

Q. Has the expected earnings approach been recognized as a valid ROE benchmark?

A. Yes. This method predominated before market-based methods were adopted by academic experts, and it has long been referenced and relied on in regulatory proceedings.[52] For example, in approving an ROE for electric utility operations, the North Carolina Utilities Commission recently concluded that:

> In prior cases, the Commission has given significant weight to the results of the Expected Earnings methodology, which stands separate and apart from the market-based methodologies (e.g., the DCF or CAPM) also used by ROE experts. The Commission chooses to do so again in this case.[53]

Similarly, the Ohio Public Utility Commission is required by statute to consider prospective earned rates of return in evaluating the impact of electric security plans.[54]

As S&P observed, "[h]istorically, there have been two approaches in calculating ROE in regulatory proceedings, a comparable earnings approach and a market analysis. In a

[52] *See, e.g.,* Nat'l Ass'n of Regulatory Util. Comm'rs, *Utility Regulatory Policy in the U.S. and Canada, 1995-1996* (Dec. 1996).
[53] North Carolina Utilities Commission, Docket No. E-7, Sub 1187, et al., *Order Accepting Stipulations, Granting Partial Rate Increase, and Requiring Customer Notice* (Mar. 31, 2021) at 94.
[54] Ohio R.C. 4928.143(E).

comparable earnings approach, similar investments with similar risks are analyzed to determine an appropriate ROE." A textbook prepared for the Society of Utility and Regulatory Financial Analysts points out that the comparable earnings method is firmly anchored in the regulatory tradition of the *Bluefield* and *Hope* cases, as well as sound regulatory economics.[55] *New Regulatory Finance* concludes that, "because the investment base for ratemaking purposes is expressed in book value terms, a rate of return on book value, as is the case with Comparable Earnings, is highly meaningful."[56]

Q. What ROEs are implied by the expected earnings approach for the Other Witnesses' proxy groups?

A. As shown on Exhibit AMM-18 and summarized in Table AMM-R3 below, reference to the expected earnings approach implies an average cost of equity on the order of 10.4 percent for the utilities in the Other Witnesses' proxy groups. These book return estimates are an "apples to apples" comparison to the ROE recommendations of the Other Witnesses.

TABLE AMM-R3
EXPECTED EARNINGS ROES

Proxy Group	Average
Parcell	10.0%
Garrett	10.7%
Kaufman	10.7%
Average	**10.4%**

[55] David C. Parcell, *The Cost of Capital—A Practitioner's Guide*, Society of Utility and Regulatory Financial Analysts (2010) at 115-116.
[56] Roger A. Morin, *New Regulatory Finance*, Pub. Utils. Reports, Inc. (2006) at 395.

Q. What other evidence indicates that the Other Witnesses' ROE recommendations fail to meet regulatory standards?

A. As discussed in my direct testimony,[57] expected rates of return for firms in the competitive sector of the economy are also relevant in determining the appropriate return to be allowed for rate-setting purposes. The idea that investors evaluate utilities against the returns available from other investment alternatives—including the low-risk companies in my non-utility proxy group—is a fundamental cornerstone of modern financial theory. Aside from this theoretical underpinning, any casual observer of stock market commentary and the investment media quickly comes to the realization that investors' choices are almost limitless. It follows that utilities must offer a return that can compete with other risk-comparable alternatives, or capital will simply go elsewhere.

In fact, returns in the competitive sector of the economy form the very foundation for utility ROEs because regulation purports to serve as a substitute for the actions of competitive markets. The Supreme Court recognized in *Hope* that the degree of risk, not the nature of the business, is relevant in evaluating an allowed ROE for a utility. The cost of capital is an opportunity cost based on the returns that investors could realize by putting their money in other alternatives, and the total capital invested in utility stocks is only the tip of the iceberg of total common stock investment.

Q. Do the Other Witnesses recognize the central concept that underpins your non-utility analysis?

A. Yes. Mr. Parcell says:

The opportunity cost principle provides that a utility and its investors should

[57] McKenzie, Exh. AMM-1T at 55:1-56:4; Exh. AMM-3 at 28:19-30:10.

> be afforded an opportunity … 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.[58]

Mr. Parcell notes further that his CE method is derived from the "corresponding risk" concept discussed in the *Bluefield* and *Hope* cases.[59] In fact, Mr. Parcell's CE methodology considers realized ROEs of unregulated companies (in the form of the S&P 500). As Mr. Parcell states:

> 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.[60]

In other words, Mr. Parcell correctly recognizes that investors gauge their required returns from utilities against those available from utility and non-utility firms of comparable risk. My reference to a low-risk Non-Utility Group is entirely consistent with the guidance of the Supreme Court and the principles outlined in Mr. Parcell's own testimony.

Mr. Garrett also cites to *Bluefield* and *Hope*, and further references *Wilcox*.[61] Mr. Garrett summarizes this decision, saying that, "The Court found that 'the amount of risk in the business is a most important factor' in determining the appropriate allowed rate of return."[62] Mr. Garrett goes on to state that "the cost of capital is driven by stock prices, dividends, growth rates, and–most importantly–it is driven by risk."[63] Meanwhile, Dr. Kaufman also cites to *Bluefield* and *Hope*, and he likewise confirms that a fair and reasonable

[58] Parcell, Exh. DCP-1T at 9:3-8 (emphasis added).
[59] *Id.* at 47:20-21.
[60] *Id.* at 50:27-29.
[61] *Wilcox v. Consolidated Gas Co. of N.Y.*, 212 U.S. 19 (1909).
[62] Garrett, Exh. DJG-1T at 4:13-15.
[63] *Id.* at 6:25-7:1.

return depends on "whether the return is consistent with returns expected by investors for other investments of comparable risks."[64] This testimony from the Other Witnesses recognizes that the standards for return on equity for regulated utilities allow for a comparison with the returns available to firms in the competitive sector of the economy, so long as they have corresponding risks.

Q. What are the results of your ROE analysis for the non-utility group?

A. As shown on page 3 of Exhibit AMM-14 to my direct testimony, the average ROEs for the non-utility group reported in my direct testimony range from 10.5 percent to 11.0 percent, and average 10.8 percent. Considering that a comparison of objective risk indicators shows my non-utility group to be less risky than the Utility Group or Avista,[65] these ROE results provide a conservative guideline for a fair ROE to the Company.

Q. What do these benchmarks you discuss imply with respect to the Other Witnesses' ROE recommendations?

A. Consideration of regulatory standards and alternative benchmarks demonstrate that the 9.50 percent, 8.50 percent and 9.25 percent ROE recommendations of Mr. Parcell, Mr. Garrett and Dr. Kaufman, respectively, are below any reasonable estimate of Avista's cost of equity.

II. RESPONSE TO MR. PARCELL

Q. What is the purpose of this section of your rebuttal testimony?

A. This section presents my evaluation of Mr. Parcell's quantitative analyses and

[64] Kaufman, Exh.LDK-1T at 24:14-15.
[65] McKenzie, Exh. AMM-3 at Table 3.

responds to his criticisms of my ROE analysis.

Q. How does Mr. Parcell arrive at his 9.50 percent recommended ROE for Avista?

A. Mr. Parcell's recommended ROE was based on the results of four analyses.[66] From his DCF analysis, he arrived at a range of 9.0 percent to 10.0 percent. His CAPM resulted in an ROE of 10.7 percent. His third approach, the CE method, yielded a range of 9.0 percent to 9.5 percent. Finally, Mr. Parcell's risk premium analysis generated an ROE range of 9.8 percent to 10.8 percent. Mr. Parcell ignores his CAPM outcome, claiming it to be an outlier.[67] Based on his DCF and CE results, Mr. Parcell concluded that a fair ROE for Avista is in a range of 9.5 percent to 10.0 percent. His 9.5 percent ROE recommendation comes from the bottom end of this range "in order to recognize the risk-reducing attributes of the MYRP … as well as the Commission's long-standing principle of gradualism."[68]

Q. Did Mr. Parcell provide any explanation or evidentiary support for his application of "gradualism"?

A. No. The concept of "gradualism" has customarily been referenced in rate design, where movement to cost-based rates may engender rate shock. Mr. Parcell's general appeal to "gradualism" provides no logical support for his 9.50 percent ROE recommendation. Considering that utility bond yields are now about 260 basis points higher than when Avista's existing ROE of 9.40 percent was approved by the Commission in a litigated proceeding, even a gradual move towards a fair ROE requires far more than a 10 basis point increase. Moreover,

[66] Parcell, Exh. DCP-1T at 5:15-18.
[67] *Id.* at 5:20-6:1.
[68] *Id.* at 6:2-4.

considering that Staff's 9.5 percent ROE recommendation falls below recent authorized ROEs for electric utilities, his unsupported and misguided reference to "gradualism" does not result in a reasonable ROE recommendation or address the Company's ongoing need to maintain its financial integrity and attract capital.

Q. How might the principle of "gradualism" be at odds with the standards set forth in *Bluefield* and *Hope*?

A. In his testimony, Mr. Parcell outlines the standards set forth in this relevant case law:

> 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.[69]

In my direct testimony and earlier in this rebuttal testimony, I have documented the substantial increase in capital costs that has occurred since 2021. In a time of rising capital costs, if gradualism prevents a utility's allowed ROE from rising to the level of returns that investors can expect on investments of similar risk, then the "opportunity cost" principle outlined by Mr. Parcell in the passage above will not be satisfied. In other words, investors would be disincentivized to allocate equity capital to the given utility if they could earn a higher return on alternative investments of similar risk, without waiting for "gradualism" to take hold. Such an outcome, which could result from applying gradualism in the context of

[69] *Id.* at 9:1-8.

rising capital costs, would violate the financial and economic parameters of "comparable earnings, financial integrity, and capital attraction" as outlined by Mr. Parcell above.

Q. Do you agree with Mr. Parcell that Avista should receive a lower ROE if a MYRP is approved for the Company?

A. No. The central question is not whether Avista's proposed MYRP has "risk-reducing attributes," as Mr. Parcell claims.[70] Rather, it is whether approval of a MYRP for Avista would differentiate the Company from the proxy groups that are the subject of the ROE analysis. Mr. Parcell does not evaluate whether a MYRP for Avista would set it apart from the average company in his proxy group, or whether Avista's regulatory mechanisms broadly speaking distinguish the Company from other electric utilities. In this regard, Mr. Parcell cannot say that a MYRP would afford any "risk-reducing attributes" to Avista that the other proxy group companies do not also enjoy.

As discussed in my direct testimony and documented on McKenzie, Exhibit AMM-5,[71] adjustment mechanisms, cost trackers, and future test years are widely prevalent in the utility industry, along with alternatives to traditional ratemaking such as formula rates and MYRPs. As S&P's RRA publication recently noted, "[MYRPs] are a common form of alternative regulation in the US."[72] Mr. Parcell's suggestion that an MYRP—especially under Staff's proposed single period rate plan—would distinguish the Company's overall investment risks from its industry peers is simply unsupported. On the contrary, a wholistic assessment supports a conclusion that Avista's regulatory mechanisms—including its

[70] *Id.* at 6:3, 25:3, 60:8.
[71] McKenzie Direct at 16:9-19:15.
[72] S&P Global, *Major energy utility cases in progress in the US*, RRA Regulatory Focus (Oct. 4, 2023).

MYRP—do not provide a basis to distinguish the risks of the Company from the proxy utilities.

Q. Did the Commission explicitly adjust Avista's ROE downward to account for any "risk-reducing attributes" of SB 5295?

A. No. Avista's currently authorized ROE of 9.40 percent was originally awarded on September 27, 2021,[73] while SB 5295 was signed into law approximately five months earlier on May 3, 2021.[74] In their final order, the Commission determined "that a reasonable range of returns exists between 9.0 and 9.8 percent,"[75] and ultimately found "that it is appropriate to maintain Avista's ROE of 9.4 percent."[76] In other words, the Commission made no specific adjustment to Avista's 9.40 percent ROE on the basis of the Company's MYRP.

Q. Does Mr. Parcell selectively ignore specific results produced by his ROE analyses?

A. Yes. As was mentioned, Mr. Parcell ignores his CAPM ROE of 10.7 percent, which he says "is currently an outlier due to Federal Reserve policy."[77] Beyond that, Mr. Parcell's final DCF range of 9.0 percent to 10.0 percent "excludes the singular highest DCF result" of 10.6 percent, which he characterizes as "an outlier."[78] Mr. Parcell's selective

[73] Washington Utilities and Transportation Commission, Dockets UE-200900, UG-200901, and UE-200894 (Consolidated), Final Order 08 / 05 (Sep. 27, 2021) ("Final Order").
[74] https://app.leg.wa.gov/billsummary?billnumber=5295&year=2021 (last visited Jul. 24, 2024).
[75] Final Order at 39.
[76] Final Order at 41.
[77] Parcell, Exh. DCP-1T at 5:21-22.
[78] *Id.* at 37:19, 38:7-8.

removal of values at the upper end of his ROE results appears to be results-oriented.[79]

A. Proxy Group

Q. In arriving at his proxy group, Mr. Parcell eliminates utilities with market a market capitalization outside the range of $1 to $10 billion, as well as those with common equity ratios below 40 percent.[80] Are these legitimate criteria in arriving at a proxy group?

A. No. Mr. Parcell fails to demonstrate how these subjective requirements translate into differences in the investment risks perceived by investors. Under the regulatory standards established by *Hope* and *Bluefield*, the key factor to consider in establishing a meaningful proxy group is the level of overall investment risk, not the total market value or capital structure. Moreover, the extent to which a firm's market value or capital structure impacts risks is already considered in the published ratings assigned by Moody's and S&P, and there is no basis for Mr. Parcell to second-guess these objective risk measures. Mr. Parcell presents no evidence to demonstrate a connection between the subjective criteria that he employs and the views of real-world investors in the capital markets. The arbitrary nature of the market value and common equity ratio tests proposed by Mr. Parcell is further illustrated by the lack of any independent, objective findings to support his imposed thresholds.

Q. What is your conclusion regarding the proxy group criteria used by Mr. Parcell?

A. Staff's screening criteria are unjustifiably narrow, and they result in a proxy

[79] Mr. Parcell also says my "CAPM results are outliers and warrant no current weight in the ROE determination for Avista" on the simple basis that they "greatly exceed" his own CAPM results. Parcell, Exh. DCP-1T at 44:4-6.

[80] Parcell, Exh. DCP-1T at 33:10-12.

group that is inappropriately small. The goal of the proxy group selection process should be to include as many similar utilities as possible, not to unnecessarily eliminate companies based on overly restrictive criteria. While adopting narrowly-tailored selection criteria might give the illusion of precision, when overly selective criteria are applied, as is the case with Mr. Parcell's analysis, the result is a constrained proxy group. Using a limited group of companies increases the potential for error and potentially magnifies the impacts from even just one extreme result. Whereas Staff's proxy group was composed of only 10 companies, my proxy group consists of 22 companies.

Q. Do you agree with Mr. Parcell that it is necessary to eliminate firms that have cut dividends in the past five years?

A. No. The DCF model is forward-looking and based on investors' future expectations, not on data over an arbitrary five-year historical period. The fact that a utility may have cut its dividends at some point in the past is irrelevant to an evaluation of investors' current required rate of return. As FERC has concluded:

> We agree . . . that a three-year dividend yield screen would be inappropriate because the DCF model is based on investors' required return from current, not historical, estimates of dividend yield and growth.[81]

Meanwhile, Staff suggests that Dominion Energy and CenterPoint Energy—which last cut their dividends in 2020 and 2021, respectively—should be excluded on this basis.[82] It is inconceivable that a dividend cut three years ago could be relevant to investors' forward-looking expectations today, and there is no basis to exclude these firms from the proxy group.

[81] *Coakley v. Bangor Hydro-Elec. Co.*, Opinion No. 531, 147 FERC ¶ 61,234 at para. 112 (2014).
[82] Parcell, Exh. DCP-8.

Q. Mr. Parcell also excludes Algonquin Power and Utilities, Inc. ("Algonquin") should be excluded because it has not yet been included in the Value Line electric utility industry.[83] Is this a valid reason for excluding Algonquin from the proxy group?

A. No. Inclusion in Value Line's electric utility group is a reasonable starting point but is not a necessary condition for proxy group inclusion. The objective in assembling a proxy group is not to find reasons to exclude individual companies; rather, it is to identify all of the publicly traded utilities that investors would view as comparable-risk investment opportunities. While Value Line's industry groups may serve as a useful springboard, this single source is not the final arbiter that defines the universe of alternative opportunities available to investors. Other well-recognized investment information sources relied on by investors classify Algonquin as an electric or public utility,[84] and there is no basis to distinguish between Algonquin and other firms accepted as comparable.

B. DCF Analysis

Q. First, does Mr. Parcell offer any specific criticisms of your DCF analysis?

A. No.

Q. Mr. Parcell relies on historical growth rates to apply the DCF model. Is this appropriate?

A. No. I do not believe that historical growth rates provide a meaningful guide to

[83] *Id.*

[84] *See*, Zacks Investment Research, Inc., which classifies Algonquin in its "Utility-Electric Power" industry group; Fidelity Investments, classifying Algonquin in the "Multi-Utilities" sector. Both of these industry classifications are identical to Avista.

investors' future expectations. As discussed in my direct testimony,[85] it is investors' future expectations—and not actual, historical results—that determine the current price they are willing to pay for common stocks. Historical growth rates can differ significantly from the forward-looking growth rate required by the DCF model. Moreover, to the extent historical trends for utilities are meaningful, they are already captured in projected growth rates, including those published by Value Line, IBES, and Zacks since securities analysts also routinely examine and assess the impact and continued relevance (if any) of historical trends.

Q. Is the downward bias inherent in historical growth rates for electric utilities evident in Mr. Parcell's DCF analysis?

A. Yes, it is. For example, consider the historical earnings per share ("EPS") growth measures displayed on page 3 of Exhibit DCP-9 to Mr. Parcell's testimony. As shown there, four of the ten historical EPS growth rates for the individual companies relied on by Mr. Parcell fall at or below 2.0 percent. Combining these companies' historical EPS growth rates with their adjusted dividend yields (Exhibit DCP-9 at 5) implies DCF ROEs in the range of 5.3 percent to 6.9 percent, which falls well below any credible estimate. As a result, these values provide no significant information regarding investors' expectations and requirements.

Q. Mr. Parcell asserts that investors have "A wide array of indicators . . . for estimating investors' growth expectations . . . all of which would be expected to have some impact on their decision-making process."[86] Do you agree?

A. No. As I discussed in my direct testimony, evidence indicates that investors

[85] McKenzie, Exh. AMM-3 at 10:19-11:16.
[86] Parcell, Exh. DCP-1T at 36:4-30.

rely primarily on EPS growth projections to form their expectations.[87] The continued success of investment services such as IBES, Value Line, and Zacks, and the fact that projected growth rates from such sources are widely referenced, provides strong evidence that investors give considerable weight to analysts' earnings projections in evaluating future growth. Future trends in EPS, which provide the source for dividends and ultimately support share prices, play a pivotal role in determining investors' long-term growth expectations. The importance of EPS in evaluating investors' expectations and requirements is well accepted in the investment community, and surveys of analytical techniques relied on by professional analysts indicate that earnings are far more influential than dividends per share ("DPS") or book value per share ("BVPS").[88]

The availability of projected EPS growth rates is also a key reason why investors favor this measure over DPS or BVPS. Apart from Value Line, investment advisory services do not generally publish comprehensive DPS or BVPS growth projections, and this lack of dividend or book value growth rates relative to the abundance of EPS forecasts attests to their relative influence. The fact that analyst EPS growth estimates are routinely referenced in the financial media and in investment advisory publications implies that investors use them as a primary basis for their expectations. As *New Regulatory Finance* observed:

> The sheer volume of earnings forecasts available from the investment community relative to the scarcity of dividend forecasts attests to their importance. The fact that these investment information providers focus on growth in earnings rather than growth in dividends indicates that the investment community regards earnings growth as a superior indicator of future long-term growth. Surveys of analytical techniques actually used by analysts reveal the dominance of earnings and conclude that earnings are

[87] McKenzie, Exh. AMM-3 at 10:19-11:16.

[88] Stanley B. Block, *A Study of Financial Analysts: Practice and Theory*, Financial Analysts Journal (July/August 1999).

considered far more important than dividends.[89]

While I did not rely solely on EPS projections in applying the DCF model,[90] my evaluation clearly supports greater reliance on EPS growth rate projections than other alternatives.

Q. Have other regulators recognized that analysts' EPS growth rate estimates are a more meaningful guide to investors' expectations when applying the DCF model?

A. Yes. For example, the Regulatory Commission of Alaska ("RCA") has previously determined that analysts' EPS growth rates provide a superior basis on which to estimate investors' expectations:

> We also find persuasive the testimony . . . that projected EPS returns are more indicative of investor expectations of dividend growth than historical growth data because persons making the forecasts already consider the historical numbers in their analyses.[79]

The RCA has concluded that arguments against exclusive reliance on analysts' EPS growth rates to apply the DCF model "are not convincing."[80]

Similarly, the Kentucky Public Service Commission has indicated its preference for relying on analysts' projections in establishing investors' expectations:

> KU's argument concerning the appropriateness of using investors' expectations in performing a DCF analysis is more persuasive than the AG's argument that analysts' projections should be rejected in favor of historical results. The Commission agrees that analysts' projections of growth will be relatively more compelling in forming investors' forward-looking expectations than relying on historical performance . . .[81]

Likewise, the Public Utility Regulatory Authority of Connecticut has also noted that

[89] *Id.* at 302-303.

[90] As discussed in my direct testimony, I also examined the "br+sv", sustainable growth rates for the companies in my proxy group.

"there is not growth in DPS without growth in EPS," and concluded that securities analysts' growth projections have a greater influence over investors' expectations and stock prices.[91]

Similarly, FERC has expressed a clear preference for projected EPS growth rates in applying the DCF model to estimate the cost of equity for both electric and natural gas pipeline utilities:

> Opinion No. 414-A held that the IBES five-year growth forecasts for each company in the proxy group are the best available evidence of the short-term growth rates expected by the investment community. It cited evidence that (1) those forecasts are provided to IBES by professional security analysts, (2) IBES reports the forecast for each firm as a service to investors, and (3) the IBES reports are well known in the investment community and used by investors. The Commission has also rejected the suggestion that the IBES analysts are biased and stated that "in fact the analysts have a significant incentive to make their analyses as accurate as possible to meet the needs of their clients since those investors will not utilize brokerage firms whose analysts repeatedly overstate the growth potential of companies."[92]

Q. Is there another shortcoming in Mr. Parcell's DCF analysis?

A. Yes. Another flaw in Mr. Parcell's DCF analyses is his decision to average all individual growth rates, and then compute a single DCF estimate for each growth rate average. Each individual growth rate represents a stand-alone estimate of investors' future expectations, and each value should be evaluated on its own merits. The fact that an average of several growth rates might produce a DCF estimate that could be considered reasonable does not absolve the need to evaluate each underlying growth rate separately.

For example, consider a utility with a dividend yield of 3.5 percent and three hypothetical growth estimates of 0.0 percent, 6.5 percent, and 14.0 percent. Under Mr. Parcell's method, the DCF estimate would be computed by adding the 6.8 percent average of

[91] *Decision*, Docket No. 13-02-20 (Sept. 24, 2013).

[92] *Kern River Gas Transmission Co.*, 126 FERC ¶ 61,034 at P 121 (2009) (footnote omitted).

the three individual growth rates to the dividend yield, resulting in a cost of equity estimate of 10.3 percent. The problem with this method is that it disguises the fact that two of the underlying growth rates—0.0 percent and 14.0 percent—do not provide a meaningful guide to investors' expectations. Rather than averaging the good with the bad, each implied cost of equity estimate (in this example, 3.5 percent, 10.0 percent, and 17.5 percent) should be evaluated on a stand-alone basis.[93] Mr. Parcell simply calculated the average of the individual growth rates with no consideration for the reasonableness of the underlying data. Because Mr. Parcell failed to perform this essential step, his DCF analysis included individual growth rates that do not reflect investors' expectations.

Q. Does Mr. Parcell implicitly recognize the need to evaluate the economic logic of individual growth rates and the resulting cost of equity estimates?

A. Yes. Mr. Parcell eliminated high and low First Call projected EPS growth rates for Portland General Electric and OGE Energy, respectively, from his calculation of average projected EPS growth rates,[94] and Mr. Parcell further notes on page 5 of Exhibit DCP-9 that, "negative values not used in calculations." A negative growth rate would imply a DCF cost of equity that falls below a utility's dividend yield and Mr. Parcell is fully justified to exclude such results. However, Mr. Parcell should have applied the same critical analysis to the remainder of his growth rate values, many of which imply cost of equity estimates that are similarly illogical.

[93] The implied cost of equity estimates are calculated as the sum of the dividend yield (3.5 percent) and the respective growth rates (0.0 percent, 6.5 percent, and 14.0 percent).
[94] Parcell, Exh. DCP-9 at 4.

Q. Can you show the downward bias in Mr. Parcell's constant growth analysis?

A. Yes. For example, Mr. Parcell reports a prospective retention growth rate of 0.0 percent for NorthWestern Corp.[95] A growth rate of 0.0 percent implies a cost of equity equal to the dividend yield—in this case 5.2 percent.[96] This falls below prevailing yields on Baa utility bonds and is clearly illogical. Similarly, Mr. Parcell averages 3.5 percent and 0.7 percent projected EPS growth rates for Black Hills Corp., but the lower of these two growth rates, when combined with an adjusted dividend yield of 4.8 percent, implies a DCF ROE of 5.5 percent. This again falls below the prevailing yield on less risky utility bonds. As a result, these and other illogical growth measures should have been removed from Mr. Parcell's constant growth DCF analysis.[97]

Q. Are Mr. Parcell's retention growth rates understated?

A. Yes. Mr. Parcell bases his calculations of the internal, "br" retention growth rate on data from Value Line. As I explained in my direct testimony,[98] if the rate of return, or "r" component of the internal growth rate, is based on end-of-year book values, such as those reported by Value Line, it will understate actual returns because of growth in common equity over the year.

Furthermore, Mr. Parcell uses the simplest form of the retention growth model, which defines growth as a function of internally generated funds only. In applying this method, Mr.

[95] *Id.* at 3.
[96] *Id.* at 1.
[97] *See e.g.*, a 1.5 percent BVPS historic growth rates for OGE Energy (Parcell, Exh. DCP-9 at 3), a retention growth rate of 1.8 percent for Avista (Parcell, Exh. DCP-9 at 2).
[98] McKenzie, Exh. AMM-3 at 12:18-13:6.

Parcell should have used the "br + sv" form of the model, which considers both growth from internally generated funds (the "br" term) and from issuances of equity at prices above book value (the "sv" term).[99] This is the form of the model that I use. Mr. Parcell's decision to omit the "sv" term leads to a further downward bias in his analysis.

Q. In arriving at his recommendation, Mr. Parcell narrows his DCF range to 9.0 percent to 10.0 percent.[100] What does this imply about his individual DCF results?

A. Mr. Parcell presents twelve mean and median values summarizing his DCF study results,[101] including a 10.6 percent value he categorizes as an "outlier."[102] These results are displayed in Figure AMM-R6, below:

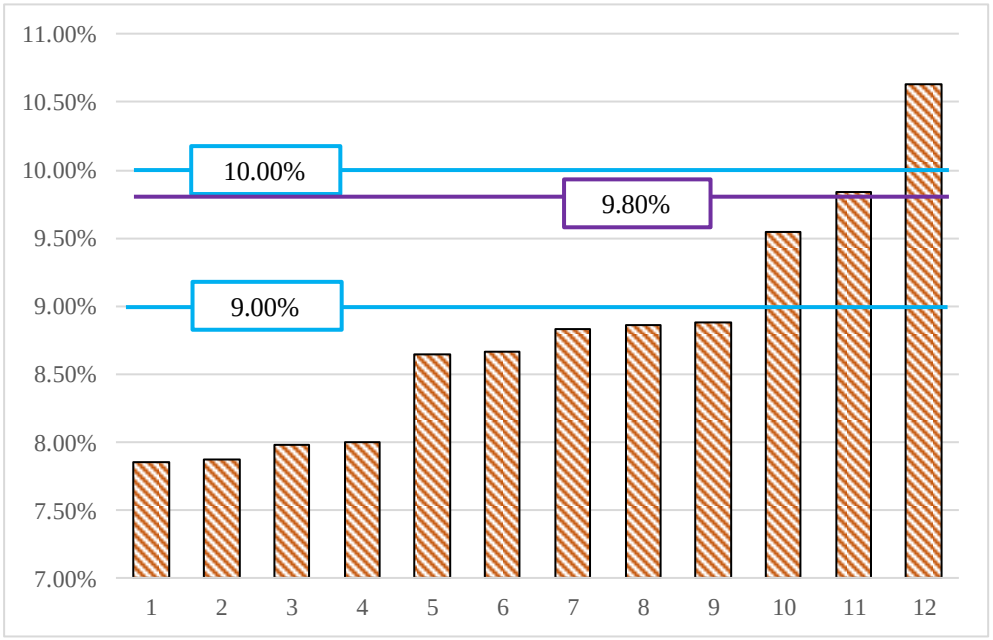
[99] The "sv" factor recognizes that when new stock is sold at a price above book value, existing shareholders experience equity accretion. In the case of equity accretion, the increment of proceeds above book value leads to higher growth because it increases the book value of the existing shareholders' equity.

[100] Parcell, Exh. DCP-1T at 38:5-6.

[101] Parcell, Exh. DCP-9 at 5.

[102] The 10.6 percent value is the only DCF result that Mr. Parcell regards as an "outlier." In other words, he does not consider DCF results in a range of 7.9 percent to 8.0 percent as outliers.

FIGURE AMM-R6
PARCELL DCF RESULTS



Interestingly, only two of the twelve results fall within his recommended DCF range of 9.0 percent to 10.0 percent. The average of Mr. Parcell's twelve DCF results is 8.80 percent, which falls 117 basis points below the average ROE of 9.80 percent authorized for vertically integrated electric utilities in 2023.[103] Mr. Parcell's focus on the highest of his remaining DCF estimates is a pragmatic accommodation that stems from the inherent downward bias and unreasonable nature of the majority of his study results.

Q. Is there any basis for Mr. Parcell's assertion that a 10.6 percent DCF result is an "outlier"?

A. No. In Mr. Parcell's judgement, a range of 9.0 percent to 10.0 percent fairly represents the reasonable outcome of his DCF analysis. The 10.6 percent value that he labels

[103] S&P Global Market Intelligence, *Major energy rate case decisions in the US—January-December 2023*, RRA Regulatory Focus (Feb. 6, 2024).

an "outlier" is closer to the top of this range (60 basis points) than the four lowest values are to the 9 percent bottom of his range (100 to 115 basis points). Thus, if any results are to be considered "outliers," it is his DCF values in the 7.85 percent to 8.00 percent range.

C. Capital Asset Pricing Model

Q. What is the fundamental problem associated with Mr. Parcell's CAPM analysis?

A. Like the DCF model, risk premium methods—including the CAPM—are *ex-ante*, or forward-looking models based on expectations of the future. As a result, in order to produce a meaningful estimate of investors' required rate of return, the CAPM must be applied using data that reflects the expectations of actual investors in the market. However, while Mr. Parcell recognized that "the [cost of capital] is an opportunity cost and is prospective looking,"[104] his application of the CAPM method is based entirely on *historical*—not projected—rates of return. The primacy of current expectations is recognized by Morningstar (subsequently Duff & Phelps, now Kroll), one of the sources relied on by Mr. Parcell to apply the CAPM:

> The cost of capital is always an expectational or forward-looking concept. While the past performance of an investment and other historical information can be good guides and are often used to estimate the required rate of return on capital, the expectations of future events are the only factors that actually determine cost of capital.[105]

Similarly, the Indiana Utility Regulatory Commission has previously concluded that:

> Relying on historic market returns introduces some highly questionable assumptions, which must be taken on faith. Specificlaly [sic], one must assume that marketplace returns experienced historically are what investors were expecting to receive and continue to guide investor expectations today. It also

[104] Parcell, Exh. DCP-1T at 9:13-14.

[105] Morningstar, *Ibbotson SBBI, 2013 Valuation Yearbook* at 21.

> assumes that asset relationships prevailing over the past 62 years continue today unchanged.[106]

By failing to look directly at the returns investors are currently requiring in the capital markets, as I did on Exhibits AMM-9 and AMM-10 to my direct testimony, Mr. Parcell's CAPM results significantly understate investors' required rate of return.

Q. Is there anything forward-looking about the CAPM data referenced by Mr. Parcell?

A. No. Mr. Parcell bases his CAPM estimates on three alternative values of the MRP. One value relies on data for the S&P 500 and 20-year U.S. Treasury bonds from the period 1978-2023, while the other two figures rely on data for the S&P 500 and long-term government bonds over the years 1926-2022.[107] In other words, instead of directly considering requirements in today's capital markets, Mr. Parcell is implicitly asserting that events and expectations for the time periods covered by these historical studies are more representative of what is likely to occur going forward.

The data that Mr. Parcell considers to inform his MRP run counter to his own testimony, in which he identified the factors that affect the cost of capital:

> 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.[108]

It is hard to imagine how data from the 1920s and 1930s, or even from the 1970s, can

[106] Indiana Utility Regulatory Commission, *Indiana Michigan Power Co.*, Cause No. 38728 (Aug. 24, 1990).
[107] Parcell, Exh. DCP-1T at 41:2-21.
[108] *Id.* at 10:2-8.

influence the current cost of capital, as outlined by Mr. Parcell in the passage above. Ignoring current expectations in favor of historical averages runs counter to the assumptions underlying the use of the CAPM, which is a purely forward-looking model, and it also violates Mr. Parcell's own stated understanding of the factors that influence the cost of capital.

Q. Mr. Parcell relies on a geometric mean historical risk premium of 4.9 percent to inform his final MRP estimate.[109] Does this value make sense?

A. No. Adding a 4.9 percent geometric mean risk premium to Mr. Parcell's risk-free rate of 4.65 percent implies a return for the market as a whole of 9.55 percent. This value is only 5 basis points higher than his ROE recommendation of 9.5 percent for Avista. This value makes no economic sense and only serves to bias Mr. Parcell's CAPM results downward.

Q. Is Mr. Parcell justified in relying on geometric mean returns when applying the historical CAPM?[110]

A. No. While both the arithmetic and geometric means are legitimate measures of average return, they provide different information. Each may be used correctly, or misused, depending upon the inferences being drawn from the numbers. The geometric mean of a series of returns measures the constant rate of return that would yield the same change in the value of an investment over time. The arithmetic mean measures what the expected return would have to be each period to achieve the realized change in value over time.

In estimating the cost of equity, the goal is to replicate what investors expect going forward, not to measure the average performance of an investment over an assumed holding

[109] *Id.* at 41:17-21.
[110] *Id.*

period. When referencing realized rates of return in the past, investors consider the realized returns in each year independently, with the arithmetic average of these annual results providing the best estimate of what investors might expect in future periods. *New Regulatory Finance* affirmed this principle:

> The best estimate of expected returns over a given future holding period is the arithmetic average. Only arithmetic means are correct for forecasting purposes and for estimating the cost of capital. There is no theoretical or empirical justification for the use of geometric mean rates of returns as a measure of the appropriate discount rate in computing the cost of capital or in computing present values.[111]

Similarly, Morningstar concluded that:

> For use as the expected equity risk premium in either the CAPM or the building block approach, the arithmetic mean or the simple difference of the arithmetic means of stock market returns and riskless rates is the relevant number. … The geometric average is more appropriate for reporting past performance, since it represents the compound average return.[112]

Q. What does this imply with respect to Mr. Parcell's CAPM analyses?

A. For a variable series, such as stock returns, the geometric average will always be less than the arithmetic average. This confirms the downward bias built in to Mr. Parcell's CAPM results.

Q. Are there other flaws that lead Mr. Parcell's CAPM results to understate the cost of equity?

A. Yes. For two of the three values that he relied on to compute his MRP, Mr. Parcell subtracted the average total return on long-term government bonds, which includes annual capital gains and losses, from the return on common stocks.[113] This is incorrect and

[111] Roger A. Morin, *New Regulatory Finance*, Pub. Util. Reports, Inc. (2006) at 116-117, (emphasis added).
[112] Morningstar, *Ibbotson SBBI 2013 Valuation Yearbook* at 56.
[113] Parcell, Exh. DCP-1T at 41:17-21.

inconsistent with the findings of his own sources.[114] As Duff & Phelps noted, "We measure the realized risk premium by comparing the stock market returns during the specified period to the *income return* on long-term U.S. government bonds."[115] As Ibbotson Associates explained:

> Price changes in bonds due to unanticipated changes in yields introduce price risk into the total return. Therefore, the total return on the bond series does not represent the riskless rate of return. The income return better represents the unbiased estimate of the purely riskless rate of return, since an investor can hold a bond to maturity and be entitled to the income return with no capital loss.[116]

In other words, using only the arithmetic mean *income* component of the long-term government bond return provides a more reliable estimate of the expected risk premium because investors do not anticipate capital losses for a risk-free security. Mr. Parcell, however, calculated his equity risk premium using the *total* return for Duff & Phelps' (now Kroll's) long-term government bond series. As a result, two of his three historical MRPs and the resulting CAPM cost of equity estimate are all understated.

Q. What MRP is reported by Kroll, the source that Mr. Parcell cites as support for his historical returns?

A. In contrast to the 6.4 percent and 4.9 percent values that Mr. Parcell attributes to this source,[117] as of December 31, 2023, Kroll reports a long-horizon equity risk premium of 7.17 percent.[118]

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[114] Mr. Parcell cites Duff & Phelps and Ibbotson Associates as former publishers of his data series at Exh. DCP-1T, footnote 48.
[115] Duff & Phelps, *2018 Valuation Handbook – U.S. Guide to Cost of Capital* at 39 (emphasis original).
[116] Morningstar, *Ibbotson SBBI 2008 Valuation Yearbook* at 77.
[117] Parcell, Exh. DCP-1T at 41:19-21.
[118] Kroll, *Cost of Capital Navigator*.

Q. What cost of equity estimate results from Mr. Parcell's analysis when the MRP actually reported by his own source is used?

A. Averaging Mr. Parcell's 7.82 percent MRP from Parcell, Exhibit DCP-10 with the 7.17 percent long-horizon historical MRP reported by Kroll results in an average of 7.5 percent. Substituting this average MRP into Mr. Parcell's CAPM study results in an average cost of equity for his proxy group of 11.7 percent.

Q. Mr. Parcell objects to your calculation of the MRP, which is used within the CAPM and ECAPM analyses.[119] How do you respond?

A. Within my MRP computation, I use a DCF approach that relies on analysts' EPS growth projections to estimate the market return. Mr. Parcell's singular objection to my MRP is that "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."[120] Beyond that, Mr. Parcell doesn't find any flaws in my approach to estimating the MRP. But as indicated above, the correct historical equity risk premium reported by Kroll is 7.17 percent, not the 4.9 percent and 6.4 percent values cited by Mr. Parcell. Meanwhile Mr. Parcell also fails to note that my MRP is lower than his remaining value of 7.8 percent.[121] And in any event, it is investors' expectations of the future that matter in ROE estimation. Whether or not such projections exceed historical MRPs is not the issue, as long as they reflect widely held expectations.

[119] Parcell, Exh. DCP-1T at 44:21-45:4.
[120] *Id.* at 45:1-3.
[121] *Id.* at 42:2.

Q. Has the forward-looking CAPM approach presented in your direct testimony been relied on by regulators and in the financial literature?

A. Yes. I based my CAPM approach on the methods used by the Staff at the Illinois Commerce Commission, whose witnesses have routinely relied on forward-looking market rate of return estimates to apply the CAPM. For example, one staff witness described an approach analogous to that used in my direct testimony.

> Q. How was the expected rate of return on the market portfolio estimated?
>
> A. The expected rate of return on the market was estimated by conducting a DCF analysis on the firms composing the S&P 500 Index ('S&P 500'). … Firms not paying a dividend as of July 1, 2010, or for which neither Zacks nor Reuters growth rates were available were eliminated from the analysis. The resulting company-specific estimates of the expected rate of return on common equity were then weighted using market value data from Zacks on July 2, 2010. The estimated weighted averaged expected rate of return for the remaining 367 firms composing 80.21% of the market capitalization of the S&P 500, equals 12.74 percent.[122]

FERC has also adopted a forward-looking CAPM approach directly comparable to the methodology applied in my direct testimony.[123] Similarly, studies reported in the financial literature have relied on a similar DCF approach to estimate a forward-looking rate of return for the S&P 500.[124]

[122] *Direct Testimony of Michael McNally*, Illinois Commerce Commission, Docket No. 10-0467, filed October 26, 2010, at 27-29. The Illinois Commerce Commission relied on this CAPM approach in arriving at the authorized ROE in this proceeding. Illinois Commerce Commission, Docket No. 10-0467, Order (May 24, 2011) at 153.

[123] *Ass'n of Bus. Advocating Tariff Equity v. Midcontinent Indep. Sys. Operator, Inc.*, Opinion No. 569-A, 171 FERC ¶ 61,154 (2020) (Opinion No. 569-A) at P 260, *vacated & remanded sub nom. MISO Transmission Owners v. FERC*, No. 16-1325 (D.C. Cir. 2022).

[124] R.S. Harris, and F.C. Marston, *Estimating Shareholder Risk Premia Using Analysts' Growth Forecasts*, Financial Management (Summer 1992).

Q. Are there other shortcomings associated with Mr. Parcell's application of the CAPM?

A. Yes. Mr. Parcell failed to adjust for the impact of firm size. According to the CAPM, the expected return on a security should consist of the riskless rate, plus a premium to compensate for the systematic risk of the particular security. The degree of systematic risk is represented by the beta coefficient. The size adjustment is needed because differences in investors' required rates of return that are related to firm size are not fully captured by beta. To account for this, Kroll (formerly Ibbotson Associates, then Duff and Phelps), which is the same source relied on by Mr. Parcell,[125] has developed size premiums that need to be added to the CAPM cost of equity estimates to account for the level of a firm's market capitalization. Accordingly, Mr. Parcell should have incorporated an adjustment to recognize the impact of size distinctions between his proxy companies, as measured by the average market capitalization.

Q. Does Mr. Parcell object to the size adjustment within your CAPM and ECAPM models?

A. Yes. Mr. Parcell states:

> … 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.[126]

[125] Parcell, Exh. DCP-1T at footnote 48.
[126] *Id.* at 45:16-22.

Q. Is there any merit to Mr. Parcell's contention that a size adjustment should not be applied to utilities?

A. No. Of course there are any number of specific factors that distinguish a utility's risks from other firms in the non-regulated sector, just as there are important distinctions between the circumstances faced by airlines and drug manufacturers. But under the assumptions of modern capital market theory on which the CAPM rests, these considerations are reduced to a single risk measure—beta—which captures stock price volatility relative to the market. Within the CAPM paradigm, the degree of regulation, the nature of competition in the industry, the competence of management, and every other firm-specific consideration is boiled down to a single question; namely, how much does the stock's price fluctuate in relation to the market as a whole? Beta is the measure of that variability, and research demonstrates that beta does not fully account for the impact of firm size.

Mr. Parcell speculates that smaller companies "tend to be engaged in riskier businesses,"[127] but as Duff & Phelps noted, published size premia "are 'beta-adjusted,' meaning that they have been adjusted to remove the portion of excess return that is attributable to beta, leaving only the size effect's contribution to excess return."[128] In other words, to the extent that certain companies may be involved in riskier businesses, the beta coefficient within the CAPM model already controls for that risk. The Kroll size premiums that I utilize adjust the CAPM results for my proxy companies to account for the effects of company size beyond individual company risk, as measured by beta.

[127] *Id.* at 45:20-21.

[128] Duff & Phelps, *Valuation Handbook 2017, U.S. Guide to Cost of Capital*, John Wiley & Son's, at 2-10 (2017).

Q. Mr. Parcell compares risk measures for utilities across four categories based on relative size.[129] Is this comparison at all relevant?

A. No. Mr. Parcell's example does not refute the evidence cited by Kroll, or more broadly in the financial research. Contrary to the assumption underlying Mr. Parcell's comparison, the size adjustment required in applying the CAPM and ECAPM is not based on a presumed relationship between size and beta or any of the other risk indicators referenced by Mr. Parcell. Rather, it is based on the finding that *after controlling for risk differences reflected in beta*, the CAPM overstates returns to companies with larger market capitalizations and understates returns for relatively smaller firms.

Furthermore, Mr. Parcell's comparisons are limited to utility companies. Avista is competing for funds in the capital markets alongside firms from all segments of the economy. Limiting the comparison to utility companies does not constitute a rigorous test of the CAPM or paint a complete picture of the market conditions faced by the Company. In contrast to Mr. Parcell's narrow comparisons, published research by Kroll documents a very clear, consistent relationship between size and equity risk premiums, as illustrated in Table AMM-R4 below:

[129] Parcell, Exh. DCP-1T at 46:16-47:6.

TABLE AMM-R4
DUFF & PHELPS SIZE PREMIUMS

CRSP Deciles Size Study - Data as of 12/31/2023

Companies Ranked by	Market Value of Common Equity		
Decile	Low End Breakpoint ($M)	High End Breakpoint ($M)	Size Premium
Mid Cap	3,011.22	14,820.05	0.66%
Low Cap	555.88	3,010.81	1.24%
Micro Cap	1.58	554.52	2.91%
Breakdown of CRSP Deciles 1 - 10			
1	36,942.98	2,662,326.05	-0.06%
2	14,910.72	36,391.11	0.46%
3	7,493.61	14,820.05	0.61%
4	4,622.26	7,461.28	0.64%
5	3,011.22	4,621.79	0.95%
6	1,864.29	3,010.81	1.21%
7	1,050.08	1,862.49	1.39%
8	555.88	1,046.04	1.14%
9	213.04	554.52	1.99%
10	1.58	212.64	4.70%
Breakdown of CRSP 10th Decile			
10A	97.46	212.64	3.29%
10B	1.58	97.40	7.64%
10W	153.80	212.64	2.38%
10X	97.46	153.67	4.43%
10Y	57.82	97.40	6.22%
10Z	1.58	57.45	10.73%

The size adjustments shown in the righthand column range from a premium of 10.73 percent for the smallest firms in the 10th decile to a negative adjustment of 0.66 percent for the largest firms in the 1st decile. Confirming the findings of Kroll, *New Regulatory Finance* observed that "small market-cap stocks experience higher returns than large market-cap stocks with equivalent betas," and concluded that "the CAPM understates the risk of smaller utilities, and a cost of equity based purely on a CAPM beta will therefore produce too low an estimate."[130]

[130] Roger A. Morin, *New Regulatory Finance*, Pub. Utils. Reports, Inc. (2006) at 187.

Q. Mr. Parcell also places a significant weight on a 1993 study by Annie Wong.[131] Does this article refute the need for a size adjustment in applying the CAPM to a utility?

A. No. A closer examination of this research reveals that it is largely inconclusive, and inconsistent with the CAPM. In fact, her results demonstrate no material difference between utilities and industrial firms with respect to size premiums, and her study finds no significant relationship between beta and returns, which contradicts modern portfolio theory and the CAPM. A more recent *Quarterly Review of Economics and Finance* study by Thomas Zepp, reconsiders Wong's evidence and concludes that "new information . . . indicates there is a small firm effect in the utility sector."[132]

Q. Is the size adjustment incorporated in your analysis consistent with how FERC applies the CAPM?

A. Yes. FERC has observed that "[t]his type of size adjustment is a generally accepted approach to CAPM analyses,"[133] and includes the size adjustment in the CAPM under its ROE methodology for electric utilities and natural gas and oil pipelines.[134] More recently, FERC affirmed its practice of including a size adjustment, concluding that "the size adjustment is necessary to correct for the CAPM's inability to fully account for the impact of

[131] Parcell, Exh. DCP-1T at 46:1-13.

[132] Thomas M. Zepp, *Utility stocks and the size effect—revisited*, Quarterly Review of Economics and Finance, 43 (2003) 578-582.

[133] *Coakley v. Bangor-Hydro-Elec. Co.*, Opinion No. 531-B, 150 FERC ¶ 61,165 at P 117 (2015).

[134] *Ass'n of Bus. Advocating Tariff Equity v. Midcontinent Indep. Sys. Operator, Inc.*, Opinion No. 569-A, 171 FERC ¶ 61,154 (2020); *Policy Statement on Determining Return on Equity for Natural Gas and Oil Pipelines*, 171 FERC ¶ 61,155 (2020).

firm size when determining the cost of equity."[135]

Q. Mr. Parcell says that his CAPM ROE of 10.7 percent "is currently an outlier due to Federal Reserve policy,"[136] and ultimately ignores this result. How do you respond?

A. Mr. Parcell offered this explanation for his decision to exclude his CAPM results:

> Over the past two years, the Federal Reserve has reversed this monetary policy strategy, primarily in response to the increase in inflation rates, 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.[137]

I disagree with Mr. Parcell's contention that Treasury bond yields are "biased" or reflect "non-market" factors. In fact, the Federal Reserve's monetary policies are a key consideration impacting investors' return requirements and expectations; not just for Treasury bonds, but for utility bonds and common stocks as well. Mr. Parcell is effectively asserting that the CAPM approach should not be used to estimate the cost of equity unless Federal Reserve policies remain neutral and no changes to interest rates can be foreseen. Apart from speculating that bond yields might fall in the future,[138] Mr. Parcell has provided no support for this view.

Meanwhile, as discussed earlier, there is no support for Mr. Parcell's suggestion that investors anticipate significant declines in Treasury bond yields, with the recent long-term

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[135] *Ass'n of Bus. Advocating Tariff Equity v. Midcontinent Indep. Sys. Operator, Inc.*, Opinion No. 569-B, 173 FERC ¶ 61,159 at P 100 (2020).
[136] Parcell, Exh. DCP-1T at 5:21-22.
[137] *Id.* at 43:4-8.
[138] *Id.*

forecasts of leading economists reflecting stable yields through at least 2030. As Mr. Parcell has stated previously, "Because the current yield is known and measurable, it reflects investors' collective assessment of all capital market conditions."[139] These "conditions" include their assessment of Federal Reserve monetary policies.

Q. Is there anything particularly remarkable about the 20-year Treasury bond yield used as the risk-free rate in Mr. Parcell's CAPM study?

A. No. A review of monthly averages from April 1953 reported by the Federal Reserve Bank of St. Louis indicates that the 20-year Treasury bond yield was equal to or greater than the 4.65 percent risk-free rate used by Mr. Parcell over 50 percent of the time. The last time 20-year Treasury bond yields were approximately 4.65 percent was in the period May-July 2008. Coincidentally, as a result of settlement conferences in August and September 2008, a multiparty settlement was reached in Docket UE-080416 adjusting Avista's ROE to 10.2 percent.[140] During the third quarter of 2008, when Treasury bond yields were slightly lower than Mr. Parcell's 4.65 percent risk-free rate,[141] the average allowed ROEs for electric and gas utilities were 10.47 percent and 10.49 percent respectively.[142] These benchmarks provide further confirmation that Mr. Parcell's 9.5 percent ROE recommendation is downward biased and insufficient.

[139] Washington Utilities and Transportation Commission, Dockets UE-200900, et al., Parcell, Exh. DCP-1T (Apr. 21, 2021) at 52.
[140] Washington Utilities and Transportation Commission, Dockets UE-080416 and UG-080417, *Multiparty Settlement Stipulation* (Sep. 15, 2008).
[141] The average 20-year Treasury bond yield for the third quarter of 2008 was 4.49 percent, versus Mr. Parcell's 4.65 percent, which suggests that the ROE would be slightly higher under todays' capital market conditions.
[142] Regulatory Research Associates, *Major Rate Case Decisions—January 2007-December 2008 Supplemental Study*, Regulatory Focus (Jan. 12, 2009).

Q. Is Mr. Parcell's 10.7 percent CAPM result an "outlier" when compared to the results of his other methods?

A. No. Mr. Parcell's unfiltered DCF results range as high as 10.6 percent and he considers risk premium results in a range of 9.8 percent to 10.8 percent as meaningful in evaluating his ROE recommendation.[143] Mr. Parcell's 10.7 percent CAPM is consistent with these results.

Q. Mr. Parcell says that, "Over the past several years, I have not given the CAPM results weight in my final ROE recommendations."[144] Is this accurate?

A. No. In testimony filed with the Regulatory Commission of Alaska in April 2023, Mr. Parcell included his CAPM results in his final recommendation. As Mr. Parcell explained:

> Based upon these findings … I conclude that the ROE for AEL&P is within a range of 9.6 percent to 10.0 percent (9.8 percent mid-point). This range incorporates the respective upper ends of the discounted cash flow ("DCF"), Capital Asset Pricing Model ("CAPM") and comparable earnings ("CE") analyses.[145]

Mr. Parcell should have remained consistent with his testimony from April 2023 and included his CAPM result in arriving at his final ROE recommendation. Mr. Parcell's unjustified exclusion of his CAPM result biases his ROE recommendation for Avista downward.

In addition, Mr. Parcell's claim to have disavowed low CAPM results in Docket UE-200900 is not entirely accurate, given his conclusion that "they should be considered as one factor in determining where, within the recommended range, the cost of equity for Avista

[143] Parcell, Exh. DCP-9 at 2; Parcell, Exh. DCP-1T at 59:27-28.
[144] Parcell, Exh. DCP-1T at 42:19-20.
[145] Regulatory Commission of Alaska, U-22-078 AEL&P , *Prefiled Testimony of David C. Parcell on behalf of Regulatory Affairs & Public Advocacy* (Apr. 6, 2023) at 8.

should fall."[146] At the very least, this would suggest an ROE at the upper end of Mr. Parcell's range.

D. Comparable Earnings Approach

Q. What are the results of Mr. Parcell's CE analysis?

A. Mr. Parcell applies his CE analysis by examining realized ROEs for groups of proxy utilities, as well as unregulated companies. He also considers prospective returns for his proxy utilities, but not for the unregulated companies. He determines an ROE range from his CE analysis of 9.0 percent to 9.5 percent, with a midpoint of 9.25 percent.[147]

Q. Are there similarities between Mr. Parcell's CE approach and your expected earnings and Non-Utility DCF approaches?

A. Yes. Mr. Parcell applies his CE methodology to two proxy groups of utility companies, as well as to the firms in the S&P 500, which he says "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."[148] In a like manner, I apply my expected earnings approach to my proxy group of utility companies and consider investors' requirements for a reference group of low-risk companies in the non-utility sector of the economy through my Non-Utility DCF approach.

We agree that rates of return available from alternative investments of comparable risk (including unregulated firms) can provide an important benchmark in assessing the return necessary to assure confidence in the financial integrity of the utility and its ability to attract

[146] Washington Utilities and Transportation Commission, Dockets UE-200900 & UG-200901 (Consolidated), Parcell, Exh. DCP-1T at 56:19-21.
[147] Parcell, Exh. DCP-1T at 51:16-52:8.
[148] *Id.* at 50:27-29.

capital. As I discuss in my direct testimony, this approach is consistent with the economic underpinnings for a fair rate of return, as reflected in the comparable earnings test established by the Supreme Court in *Hope* and *Bluefield.*

Q. What issues do you have with Mr. Parcell's CE approach?

A. I have three primary issues with Mr. Parcell's CE approach: 1) he largely relies on historical rates of return in his analysis; 2) his suggestion that M/B ratios provide a guide to the reasonableness of returns is misguided, and 3) he omits the mid-year adjustment factor necessary to convert Value Line's end-of-year data to average annual returns. As I detailed earlier in my discussion of Mr. Parcell's DCF and CAPM analyses, setting Avista's ROE is a forward-looking process, and Mr. Parcell's over-reliance on historical data is a flaw in his methodologies. This same criticism applies to his CE analysis, which examines past data from the period 2002-2023.[149] Estimating investors' required return depends on their future expectations, not on data over an arbitrary 22-year historical period. The operating and financial environment faced by utilities, like Avista, is significantly different now than it was in 2002. Reliance on such data weakens Mr. Parcell's CE analysis.

Q. Is Mr. Parcell's description of his CE model at odds with his use of historic data?

A. Yes. Mr. Parcell describes the basis of his CE methodology as follows:

> 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.[150]

[149] *Id.* at 49:10-11.
[150] *Id.* at 48:1-4.

Mr. Parcell's description of the ROE as an opportunity cost is correct, but his focus on expected returns above is directly at odds with his use of 22 years of historic data within his CE model. It is simply implausible that earned returns from, say, 2002 or 2006 could inform what investors are expecting in today's capital markets.

Q. Mr. Parcell says that his "CE analysis also uses prospective returns and thus is not backward looking."[151] How do you respond?

A. One look at Exhibit DCP-13 disproves the contention that Mr. Parcell's CE analysis is not backward looking. On the first page of that exhibit, Mr. Parcell identifies earned rates of return for ten unique utilities, including 207 data points based on historic ROEs, and only 30 prospective values. The claim that Mr. Parcell's CE analysis "is not backward looking" is plainly incorrect.

Q. What are your comments on Mr. Parcell's consideration of M/B ratios in the context of his CE application?

A. Mr. Parcell uses the M/B ratio as a type of indicator as to the reasonableness of the returns developed through his CE analysis. For instance, he says that since recent ROEs of 9.3 percent to 9.4 percent have been accompanied by M/B ratios of 1.45 and over, and current and prospective ROEs of 8.8 percent to 9.7 percent have been accompanied by M/B ratios over 1.40, "it is apparent that authorized returns below this level would continue to result in M/Bs of well above 100 percent."[152] He adds, "the fact that 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

[151] *Id.* at 49:6-7.
[152] *Id.* at 51:20-21.

companies."[153]

I strongly disagree with Mr. Parcell's suggestion that M/B ratios are a valid consideration in setting the allowed rates of return for utilities. With M/B ratios for most utilities above 1.0, Mr. Parcell is suggesting that, unless book value grows rapidly, regulators should establish equity returns that will cause share prices to fall. Given the regulatory imperative of preserving a utility's ability to attract capital, this would be a nonsensical result. *New Regulatory Finance* concludes that, "This is certainly not a realistic or accurate view of regulation,"[154] and notes:

> M/B ratios are determined by the marketplace, and utilities cannot be expected to compete for and attract capital in an environment where industrials are commanding M/B ratios well in excess of 1.0 while regulation reduces their M/B ratios toward 1.0. Moreover, if regulators were to currently set rates so as to produce an M/B of 1.0 . . . the inevitable consequence would be to inflict severe capital losses on shareholders. Investors have not committed capital to utilities with the expectation of incurring capital losses from a misguided regulatory process.
>
> ***
>
> It is obvious that regulators, through their rate case decisions, and investors do not subscribe to the notion that utilities that have market prices above book value are over-earning. . . .
>
> ***
>
> In short, economic principles do not support the notion that the market value of utility shares should necessarily equal book value. A basic economic principle holds that, in the long-run, market value should equal asset replacement cost in a given industry. In the presence of inflation and absent significant technological advances, replacement cost exceeds original cost book value of assets. Consequently, it is quite reasonable for the market value of utility shares to exceed their book value and there is no reason to conclude that market value should equal book value when one recognizes that regulation is intended to emulate competition.[155]

The M/B ratio is determined by investors in the stock market, and a utility would be

[153] *Id.* at 51:21-52:3.
[154] Roger A. Morin, *New Regulatory Finance*, Pub. Utils. Reports, Inc. (2006) at 376.
[155] *Id.* at 377-78.

foreclosed from attracting capital if regulators were to push the M/B ratio to 1.0 while other firms command prices well in excess of 1.0 times book value.

Q. Is the simplistic view that regulation should result in an M/B ratio of 1.0 for utilities contradicted by other authoritative sources?

A. Yes. In a 1988 publication, James C. Bonbright noted that focus on M/B ratios was unwarranted and outside the purview of regulators:

> In the first place, commissioners cannot forecast, except within wide limits, the effect their rate orders will have on the market prices of the stocks of the companies they regulate. In the second place, whatever the initial market prices may be, they are sure to change not only with the changing prospects for earnings, but with the changing outlook of an inherently volatile stock market. In short, market prices are beyond the control, though not beyond the influence, of rate regulation. Moreover, even if a commission did possess the power of control, any attempt to exercise it . . . would result in harmful, uneconomic shifts in public utility rate levels.[156]

The well-known financial researcher Stewart C. Myers also observed the disconnect between regulation and resulting M/B ratios:

> [A] straightforward application of the cost of capital to a book value rate base does not automatically imply that the market and book values will be equal. This is an obvious but important point. If straightforward approaches did imply equality of market and book values, then there would be no need to estimate the cost of capital.[157]

Similarly, Charles F. Phillips also recognized the divergence between the implications of theoretical models and real-world considerations:

> Many question the assumption that market price should equal book value, believing that the earnings of utilities should be sufficiently high to achieve market-to-book ratios which are consistent with those prevailing for stocks of

[156] James C. Bonbright, Albert L. Danielsen, and David R. Kamerschen, *Principles of Public Utility Rates* 334 (Pub. Utils. Reports, Inc., 1988).
[157] Stewart C. Myers, *The Application of Finance Theory to Public Utility Rate Cases*, Bell J. Econ. & Mgmt. Science 58-59 (Spring 1972).

unregulated companies.[158]

Q. Are adjustments based on M/B ratios a common feature in determining allowed ROEs for utilities?

A. No. While arguments regarding the implications of a M/B ratio greater than 1.0 are not uncommon, I am not aware of a single instance in recent history where a state regulator has relied on M/B ratios as the basis to evaluate a fair ROE. Meanwhile, the fallacy of relying on M/B ratios in evaluating cost of equity estimates has been explicitly recognized and characterized by FERC as "academic rhetoric."[159] FERC concluded that "[i]f, all else being equal, the regulator sets a utility's ROE so that the utility does not have the opportunity to earn a return on its book value comparable to the amount that investors expect that other utilities of comparable risk will earn on their book equity, the utility will not be able to provide investors the return they require to invest in that utility."[160]

Q. Earlier, in your discussion of retention growth, you criticized Mr. Parcell for making a computational error. Does he make the same mistake in his CE analysis?

A. Yes. In his calculations of the internal "br" retention growth rate, Mr. Parcell relied on end-of-year data from Value Line. I criticized Mr. Parcell for not converting this end-of-year information to average annual amounts, which account for growth in common equity over the year. The same principle applies to his CE analysis. Mr. Parcell neglected to convert his CE results, based on Value Line data, from end-of-year values to average annual amounts. This flaw leads to further downward bias in Mr. Parcell's results.

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[158] Charles F. Phillips, *The Regulation of Public Utilities-Theory and Practice* 395 (Pub. Util. Reports, Inc., 1993) (internal quotes omitted).
[159] *See, e.g., Orange & Rockland Utils., Inc.*, 40 FERC ¶ 63,053 (1987) (Initial Decision).
[160] *Coakley v. Bangor-Hydro-Elec. Co.*, Opinion No. 531-B, 150 FERC ¶ 61,165 at P 129 (2015).

E. Risk Premium Approach

Q. What are the results of Mr. Parcell's risk premium approach?

A. Mr. Parcell applies his risk premium analysis by examining awarded ROEs for electric utilities and the average yield on A-rated utility bonds from 2002 to 2023.[161] From this, he concludes that the utility risk premium is in a range of 4.84 percent to 5.10 percent.[162] Mr. Parcell adjusts his utility risk premiums downward to account for current utility bond yields being higher than average yields during his date ranges.[163] He determines an ROE range from his risk premium analysis of 9.8 percent to 10.8 percent, with a midpoint of 10.3 percent.[164]

Q. Are there any issues with Mr. Parcell's implementation of the risk premium approach?

A. Yes. Mr. Parcell subjectively chooses to truncate the data available to apply his risk premium approach by ignoring all observations prior to 2012.[165] By choosing a truncated period for his risk premium study, Mr. Parcell unnecessarily introduces a subjective bias that undermines the credibility of his analysis. Ibbotson Associates noted the pitfalls of such a subjective approach:

> Some analysts estimate the expected risk premium using a shorter, more recent time period on the basis that recent events are more likely to be repeated in the near future … This view is suspect …[166]

Mr. Parcell's arbitrary exclusion of available data seriously undermines his analysis.

[161] Parcell, Exh. DCP-1T at 57:6-21.
[162] *Id.*
[163] *Id.* at 58:216 and Parcell, Exh. DCP-16 at 1.
[164] Parcell, Exh. DCP-1T at 59:27-28.
[165] Parcell, Exh. DCP-16.
[166] Ibbotson Associates, *2005 Yearbook, Valuation Edition* at 80.

Q. Mr. Parcell criticizes your risk premium approach.[167] Are his criticisms valid?

A. No. First, he suggests that data over the period 2011-2022 may be distorted. And second, he claims that certain data from my risk premium study is not acceptable because, "Current ROEs reflect a suite of favorable regulatory mechanisms that greatly enhance utilities' ability to recover costs, which is risk-reducing and thus warrants low ROEs."[168]

Neither of these points are persuasive. As shown on page 3 of Exhibit AMM-11 to my direct testimony, the "R Square" of the data in my risk premium study, which measures the relationship between interest rate levels and equity risk premiums, is about 0.89. This indicates that about 89 percent of the variation in risk premiums over the years covered by my study period is explained by variation in utility bond yields.[169] In this case, it is a "negative" or inverse relationship. That is, for every 100 basis point decrease in interest rates, the equity risk premium increases by about 43 basis points (and vice versa). It is entirely consistent with these results that the highest risk premium would exist over the 2011-2022 period because this period coincides with the lowest bond yields. According to the strong inverse correlation indicated by the statistics discussed above, this is exactly the relationship that would be expected.

I also disagree with Mr. Parcell's second allegation—that the risk premium study is not valid because regulatory conditions are not exactly the same as they were 30-40 years ago. Regulatory mechanisms are only one consideration is evaluating a utility's risks. It is also

[167] Parcell, Exh. DCP-1T at 54:14-55:2.
[168] *Id.* at 54:20-55:2.
[169] In addition to the relatively high R Square value, my regression's F Statistic indicates that my overall regression model is statistically significant beyond a 99 percent confidence level.

likely that utilities today face greater risk exposure related to cyber and physical threats, the imperative to maintain reliability in response to a surge in new technologies and devices, customer demand for more flexible and customized products, and the need to address environmental concerns and the impact of more extreme weather events, including wildfires. In fact, credit ratings for firms in the electric utility industry have generally declined over the time period covered by my risk premium study, indicating greater, not lower risks overall. For example, even as late as 2001, S&P reported the majority of firms in the electric utility industry were rated single-A and above, with over 20 firms having double-A ratings.[170] A blanket statement, with no supporting analysis, that the current climate faced by utilities is less risky than at any time in the past, is potentially false and misleading.[171] Moreover, it is contradictory to Mr. Parcell's observation that risk premiums implied for utilities have increased and it ignores the fact that my risk premium analysis incorporates current capital market data.

F. Other ROE Issues

Q. Do you agree with Mr. Parcell's criticisms of your expected earnings approach?[172]

A. No. His primary concern with my expected earnings approach appears to be that I did not consider M/B ratios as part of my analysis. I addressed this issue earlier in this

[170] Standard & Poor's Corporation, *Downgrades Dominate U.S. Utility Ratings in First Half; Negative Trend Likely to Continue*, RatingsDirect (Jul. 10, 2001). Currently, the average credit rating is triple-B and there are no publicly traded electric utilities with credit ratings above single-A.

[171] Mr. Parcell presents no evidence of his own to document his supposition that changes in "factors other than interest rates" have a material effect on the behavior of equity risk premiums implied from authorized ROEs, and he adopted my regression results in his own risk premium study..

[172] Parcell, Exh. DCP-1T at 52:21-53:23.

rebuttal testimony.

Q. Mr. Parcell notes that expected ROEs for the proxy group companies are higher than authorized ROEs.[173] Does this undermine your expected earnings analysis?

A. No. My ROE methods utilize forward-looking inputs wherever possible, and my expected earnings analysis is no exception. The fact that the expected return on common equity as sourced from Value Line is higher, on average, for my proxy group companies as compared to their currently allowed ROEs simply indicates that investors are likely expecting returns that exceed currently allowed returns. There is no dictate in finance that says future expected returns must be equal to present or past earned or allowed returns, as Mr. Parcell's criticism of my expected earnings method seems to suggest. The fact that expected earnings results exceed authorized returns says nothing about the validity of my expected earnings ROE estimate.

Q. Mr. Parcell rejects your use of the ECAPM because he says it "ignores" each proxy company's actual beta and instead "assigns hypothetical betas to them."[174] What is your response?

A. As I stated in my direct testimony,[175] the ECAPM is simply a variant of the traditional CAPM approach that is designed to correct for an observed bias in the CAPM result. The ECAPM reflects a refinement to adjust for a systematic tendency of low beta portfolios to over-earn and high beta portfolios to under-earn relative to the predictions of the CAPM capital market line. As one research study concluded:

[173] *Id.* at 53:16-18.
[174] *Id.* at 47:12-13.
[175] McKenzie, Exh. AMM-3 at 20:5-22:2.

> The assertion that equity risk premiums are proportional to NYSE betas is shown to result in a downward (upward) biased prediction of the cost of equity capital for a public utility having an NYSE beta that is less (greater) than unity.[176]

The ECAPM addresses this observed bias.

Q. Mr. Parcell objects to your recognition of flotation costs.[177] How do you respond?

A. Mr. Parcell argues against the inclusion of flotation costs because, "There has been no demonstration that Avista has or plans a public offering of common stock."[178] In fact, Avista has filed a prospectus with the Securities and Exchange Commission concerning an ongoing "at-the-market" offering of common stock.[179] This is consistent with investors' expectations, as reflected in Value Line's projection that Avista will increase its common shares outstanding in every year of its forecast horizon.[180]

In my direct testimony, I explained why an adjustment for flotation costs associated with past equity issues is appropriate, even when the utility is not contemplating any new sales of common stock.[181] A flotation cost adjustment in all future years is required to keep shareholders whole, and the flotation cost adjustment must consider total equity, including retained earnings. As noted in *Modern Regulatory Finance*:

> The simple fact of the matter is that common equity capital is not free. Flotation costs associated with common stock issues are very similar to the flotation costs associated with bonds and preferred stocks. Flotation costs are

[176] Robert Litzenberger, Krishna Ramaswamy, and Howard Sosin, *On the CAPM Approach to the Estimation of A Public Utility's Cost of Equity Capital*, Journal of Finance, Vol. 35, No. 2 (May 1980).
[177] Parcell, Exh. DCP-1T at 63:17-64:4.
[178] *Id.* at 63:17-18.
[179] https://www.sec.gov/Archives/edgar/data/104918/000119312524133197/d825260d424b5.htm (last visited Aug. 11, 2024).
[180] The Value Line Investment Survey, *Avista Corp.* (Jul. 19, 2024).
[181] McKenzie, Exh. AMM-1T at 50-52.

> incurred, and if they are not expensed at the time of issue, they must be recovered through a rate of return adjustment.[182]

In other words, the flotation cost adjustment cannot be strictly forward-looking unless all past flotation costs associated with past issues have been recovered.

Mr. Parcell also asserts that flotation costs, "to the extent that they occur, are known to investors and thus are reflected in the stock prices of companies," and therefore in DCF model results. This is akin to arguing that regulators could exclude a portion of a utility's reasonable and necessary operating and maintenance expense from revenue requirements because such actions would ultimately be "accounted for" in the stock price. Any regulatory policy, however unreasonable or irrational, could by "justified" under Mr. Parcell's flawed reasoning. Flotation costs are legitimate expenses and unless a discreet adjustment is made to recognize them, they will not be recovered in the rate setting process.

Finally, Mr. Parcell's observation that sales of stock at prices above book value result in accretion for existing shareholders is true, but completely unrelated to the recovery of flotation costs. As discussed earlier, stockholders regard the potential for accretion as one component of potential growth, not as a substitute for the recovery of legitimate expenses that the utility must incur to obtain equity capital. I would also note that, in contrast to the past proceedings referenced by Mr. Parcell, my flotation cost adjustment was based on the level of costs actually incurred by Avista, and not on information derived from other utilities.

[182] Roger A. Morin, *Modern Regulatory Finance*, PUR Books LLC (2021) at 329.

III. RESPONSE TO MR. GARRETT

Q. How does Mr. Garrett arrive at his 8.5 percent recommended ROE for Avista?

A. Mr. Garrett provides DCF analyses that support an ROE range of 8.0 percent to 8.2 percent and CAPM analyses that support cost of equity estimates ranging from 9.2 percent to 9.6 percent.[183] Mr. Garrett excludes his 9.6 percent CAPM result, and averages the three remaining ROEs to arrive at an ROE recommendation of 8.5 percent for Avista.[184]

Q. Does reference to Mr. Garrett's prior testimony illustrate that his ROE recommendation is illogical?

A. Yes. The table below compares Mr. Garrett's 2019 ROE recommendation for Southwestern Electric Power Company ("SWEPCO") and his 2023 ROE recommendation for Public Service Company of Oklahoma ("PSO") with his recommendation for Avista in this case.

[183] Garrett, Exh. DJG-1T at 3:9-10, Figure 1.
[184] *Id.* at 3:12-4:8.

TABLE AMM-R5
COMPARISON OF GARRETT ROE RECOMMENDATIONS

		Credit Rating		Recommended	Baa
Date	**Company**	**Moody's**	**S&P**	**ROE**	**Utility Yield**
Jul-19	SWEPCO	Baa2	A-	9.00%	4.31%
Jul-24	Avista	Baa2	BBB	8.50%	5.83%
	Change			-0.50%	1.52%
Mar-23	PS Oklahoma	Baa1	A-	8.60%	5.54%
Jul-24	Avista	Baa2	BBB	8.50%	5.83%
	Change			-0.10%	0.29%

Source
Arkansas Public Service Commission, Docket No. 19-008-U, *Direct Testimony of David J. Garrett* (July 16, 2019); Corporation Commission of the State of Oklahoma, Cause No. PUD 2022-000093, *Responsive Testimony of David J. Garrett* (Mar. 7, 023); Moody's average yield for month preceeding filing date.

As shown above, in July 2019 Mr. Garrett recommended a 9.00 percent ROE for SWEPCO when the average yield on Baa utility bonds was 4.31 percent. Despite the fact that bond yields have *increased* more than 150 basis points, Mr. Garrett's ROE recommendation for Avista is 50 basis points *lower* at 8.50 percent. Similarly, Mr. Garrett recommended an 8.60 percent ROE for PSO in March 2023 when the Baa utility bond yields averaged 5.54 percent. Since then, bond yields have increased almost 30 basis points and Avista is an objectively riskier utility than PSO, but Mr. Garrett is recommending a *lower* ROE for Avista. These outcomes violate basic principles of economic logic and provide further evidence that Mr. Garrett's ROE recommendation should be rejected.

A. Conceptual Flaws

Q. Mr. Garrett dismisses firm-specific risk factors in the ROE estimation process, stating that, "Market risk is the only type of risk that is rewarded by the market

and is thus the primary type of risk the Commission should consider when determining the allowed return."[185] Do you agree?

A. Absolutely not. Mr. Garrett discussed two primary types of risk that affect equity investors: firm-specific risk and market risk.[186] He defines firm-specific risk as those factors that affect individual companies, rather than the entire market. He lists financial risks (due to differences in debt and equity levels) and business risks (all other operating and managerial factors that may result in investors realizing more or less than their expected return in that particular company) as examples of firm-specific risk. He describes market risk as those factors that affect all firms in the market to some extent, such as interest rate risk, inflation risk, the risk of major socio-economic events. I do not disagree with Mr. Garrett's risk definitions.

Mr. Garrett goes on to say that investors can eliminate firm-specific risk through diversification, and for this reason, it is not part of their investment decision. Since market risk cannot be eliminated through diversification, it is the only type of risk that bears on the investment decision. Based on these assumptions, Mr. Garrett maintains that market risk is the primary type of risk the Commission should consider in setting the allowed return.

The problem with Mr. Garrett's risk discussion is that he is mixing apples (portfolio theory) and oranges (the regulatory process). The goal of the regulatory process is not to build a diversified portfolio, it is to estimate the ROE of a specific firm. To set a firm-specific ROE, firm-specific risks must be considered. The landmark *Bluefield* case cited by Mr. Garrett as setting forth the standards by which public utilities are allowed to earn a return on capital

[185] *Id.* at 14:1-3.
[186] *Id.* at 10:10-14:4.

investments states it clearly:

> By that standard the return to the equity owner should be commensurate with returns on investments in other enterprises having corresponding risks.[187]

Consider a utility with a service area that is highly concentrated and geographically isolated. This utility faces the potential for uncertain and extreme weather, including exposure to avalanches. It has one hydro-based generating facility and relies on a single transmission path. It lacks a broad suite of regulatory recovery mechanisms and due to its reduced economies of scale, it faces greater exposure to cash flow pressures associated with unforeseen events, including the loss of key customers or changes in regulations. Under Mr. Garrett's approach, these firm-specific risks would not be considered in the ROE estimation process. In reality, the described risks conform closely to those faced by Alaska Electric Light & Power Company and its firm-specific risks are explicitly considered by the RCA in setting its allowed equity return. In fact, the RCA typically considers the implications of firm-specific risks in setting its ROE.[188] Mr. Garrett's risk philosophies are misapplied in this case and should be rejected.

Q. Do you consider the issues you have just discussed to constitute fatal flaws in Mr. Garrett's approach?

A. Yes. These fundamental misconceptions underlying Mr. Garrett's ROE evaluation render it virtually meaningless and his 8.50 percent cost of equity estimate for Avista is not credible and should be dismissed. An authorized ROE of 8.50 percent for the Company would be extreme and punitive. Notwithstanding the fact that bond yields remain

[187] *Id.* at 5:8-10.

[188] In AEL&P's last litigated case concerning ROE, the RCA approved an ROE of 12.875 percent. U-10-29, Order No. 15 (Sep. 2, 2011) at p. 37.

elevated,[189] his recommendation is 130 basis points below the average allowed ROE for other vertically integrated electric utilities in 2023 reported by RRA.[190] Such an outcome would fall well below the returns available from comparable-risk investments and undermine the financial integrity of the Company, conditions that violate the *Hope* and *Bluefield* regulatory standards.

B. Discounted Cash Flow Model

Q. What major technical flaws do you find in Mr. Garrett's DCF analyses?

A. Mr. Garrett implements two DCF models. In one version, he combines Value Line's projected growth rate in DPS with his estimate of dividend yield to produce an "analyst growth" DCF cost of equity of 8.2 percent.[191] As discussed earlier in response to Mr. Parcell and also in my direct testimony,[192] evidence supports the contention that investors rely primarily on EPS growth projections in forming their expectations.

The importance of earnings in evaluating investors' expectations and requirements is well accepted in the investment community, and surveys of analytical techniques relied on by professional analysts indicate that growth in EPS is far more influential than trends in other measures.[193] As explained in *New Regulatory Finance*:

> Because of the dominance of institutional investors and their influence on individual investors, analysts' forecasts of long-run growth rates provide a sound basis for estimating required returns. Financial analysts exert a strong influence on the expectations of many investors who do not possess the

[189] Baa utility bond yields averaged 5.84 percent in 2023 and 5.85 percent in the first six months of 2024.
[190] S&P Global Market Intelligence, *Major energy rate case decisions in the US—January-December 2023*, RRA Regulatory Focus (Feb. 6, 2024).
[191] Garrett, Exh. DJG-7.
[192] McKenzie, Exh. AMM-3 at 10-11.
[193] Stanley B. Block, *A Study of Financial Analysts: Practice and Theory*, Financial Analysts Journal (July/August 1999).

resources to make their own forecasts, that is, they are a cause of *g* [growth].[194]

If Mr. Garrett wanted to produce DCF results that incorporate forward-looking analyst growth projections, he should have used EPS growth estimates from Value Line and other sources, as I did in my direct testimony.

In the other more problematic version of the DCF model, Mr. Garrett combines a generic estimate of growth in GDP with his estimate of dividend yield to produce a "sustainable growth" DCF cost of equity of 8.0 percent.[195] In other words, Mr. Garrett's approach assumes that all his proxy utilities will immediately revert to the same long-term rate of 3.8 percent in perpetuity.[196] This is clearly a nonsensical assumption. A cursory review of individual company growth rate estimates from my Exhibit AMM-7 (page 2) shows that securities analysts expect growth rates well in excess of 3.8 percent for most of the utilities in the proxy group. Indeed, 47 of the 61 reported analyst growth rate projections in this exhibit exceed 3.8 percent. Mr. Garrett ignores this evidence in his "sustainable growth" DCF formulation.

Q. Are GDP growth rates relevant in applying the DCF model?

A. No. There are several reasons why GDP growth is not relevant in applying the DCF model:

- Practical application of the DCF model does not require a long-term growth estimate over a horizon of 25 years and beyond—it requires a growth estimate that matches investors' expectations.

- Evidence supports the conclusion that investors do not reference long-term GDP growth in evaluating expectations for individual common stocks,

[194] Roger A. Morin, *New Regulatory Finance*, Pub. Utils. Reports, Inc. (2006) at 298.
[195] Garrett, Exh. DJG-7.
[196] *Id.*

including those in the electric utility industry.

- The theoretical proposition that growth rates for all firms converge to overall growth in the economy over the very long horizon does not guide investors' views, and growth rates for individual stocks can and do exceed GDP growth.

In short, there is no evidence that investors assume all electric utilities will immediately revert to a long-term GDP growth rate in forming their expectations for common stocks. Mr. Garrett's "sustainable growth" DCF model is the most extreme example of incorporating long-term growth into the DCF model and his resulting 8.0 percent estimate from this approach should be given no weight.

Q. The DCF model assumes an infinite stream of cash flows. Why wouldn't a transition to GDP growth make sense?

A. This view confuses the theory underlying the DCF model with the practicalities of its application in the real world. While the notion of long-term growth should presumably relate to the specific firm at issue, or at the very least to a particular industry, there are no long-term growth projections available for the companies in electric utility industry, or the broader market. By applying the DCF model in a way that is inconsistent with the information that is available to investors and how they use it, the use of GDP growth places the theoretical assumptions of a financial model ahead of investor behavior. The only relevant growth rate is the growth rate used by investors. Investors do not have clarity to see far into the future, and there is little to no evidence to suggest that investors share the view that growth in GDP must be considered a limit on earnings growth over the long-term.

Q. Are long-term GDP growth rates commonly referenced as a direct guide to future expectations for specific firms?

A. No. Certainly, investors consider broad secular trends in economic activity as one foundation for their expectations for a particular industry or firm. But there is no evidence to support the idea that investment advisory services view GDP growth as a direct guide to long-term expectations for a particular firm—much less for every firm in an entire industry.

On the contrary, the financial media typically refers to three-to-five year EPS growth forecasts for individual companies and rarely mentions long-term GDP forecasts. For example, Value Line reports are routinely relied on as a reliable source of investment data and analysis.[197] But despite Mr. Garrett's suggestion that GDP has a fundamental role in shaping investors' expectations, Value Line does not even mention trends in GDP in its evaluation growth rates for individual firms. Value Line's purpose is to inform investors of the pertinent factors that could affect future expectations specific to each of the common stocks it covers. If the long-term trajectory of GDP growth was relevant in investors' evaluation of common stocks, Value Line and other securities analysts would highlight this in their analyses.

Q. How much confidence would investors be likely to have on long-term GDP projections?

A. Very little. There are well-understood complexities and inherent inaccuracies involved in forecasting, and that such uncertainties are significantly compounded for a long-term time horizon. Consider the example of the Congressional Budget Office ("CBO"), which

[197] As noted in *New Regulatory Finance*, "Value Line is the largest and most widely circulated independent investment advisory service, and influences the expectations of a large number of institutional and individual investors." Roger A. Morin, *New Regulatory Finance*, Pub. Util. Reports, Inc. (2006) at 71.

is the source of Mr. Garrett's long-term growth rate.[198] While the CBO publishes GDP projections for the U.S. economy out to 2034, their forecast simply holds projected growth constant after a five-year horizon.

Q. Are there academic studies that recognize the shortcomings of adopting a generic long-term growth rate, such as GDP growth?

A. Yes. Professor Myron J. Gordon, who pioneered the application of the DCF approach, concluded that reference to a generic long-term growth rate, such as Mr. Garrett advocates, was unsupported.[199] More specifically, Dr. Gordon concluded that any assumption of a single time horizon for a transition to a generic long-term growth rate was highly questionable and failed to reduce error in DCF estimates.

Instead, Dr. Gordon specifically recognized that, "it is the growth that investors expect that should be used" in applying the DCF model, and he concluded: "A number of considerations suggest that investors may, in fact, use earnings growth as a measure of expected future growth."[200] Similarly, a subsequent paper co-authored by Professor Gordon concluded that:

> Analysts do not predict earnings beyond five years, which suggests that any consensus of opinion among investors probably deteriorates quickly after five years.[201]

Dr. Gordon further concluded that "the consensus among investors is that the future has a finite horizon of approximately seven years."[202] Meanwhile, a study reported in the

[198] Garrett, Exh. DJG-1T at 23:16-18.
[199] Myron J. Gordon, *The Cost of Capital to a Public Utility*, MSU Public Utilities Studies (1974) at 100-01.
[200] *Id.* at 89.
[201] Joseph R. Gordon and Myron T. Gordon, *The Finite Horizon Expected Return Model*, Financial Analysts Journal (May-Jun. 1997) at 52-61.
[202] *Id.*

Journal of Investing determined that there is no correlation between stock market returns or earnings growth and GDP, suggesting that investors' expectations built into observable share prices are driven by valuation measures, and not expected economic growth.[203] In other words, reference to long-term forecasts of GDP growth in applying the DCF model is inconsistent with investor behavior.

Q. Are there other recognized reference sources that dispute the view that investors anticipate growth for utilities to equal GDP?

A. Yes. Professor Roger Morin, the author of a recognized treatise on regulatory finance, notes that, "I am not aware of any financial literature supporting the notion that that [sic] utility earnings per share are expected to grow at the average growth of the economy; or GDP."[204] This reference source goes on to observe that "[t]he investment community does not look to GDP growth over the next several decades when evaluating an investment in utility stocks."[205] Instead, *Modern Regulatory Finance* states that "the use of GDP growth as a proxy for expected growth in earnings is highly questionable as an input in a DCF analysis,"[206] and concludes that "current earnings growth forecasts are the appropriate growth rates to use in a DCF analysis."[207] This is consistent with my testimony.

Q. Is there evidence that long-term GDP growth rates understate investors' expectations for electric utilities?

A. Yes. Actual historical growth rates for individual firms in the utility industry

[203] Joachim Klement, *What's Growth Got to Do with It? Equity Returns and Economic Growth*, Journal of Investing, Vol. 24, No. 2 (Summer 2015): 74:78.
[204] *Id.* at 486.
[205] *Id.*
[206] *Id.* at 488.
[207] *Id.* at 486.

refute the view that long-term growth is constrained by GDP. For example, half of the companies included in Value Line's electric utility industry groups achieved earnings growth over the last 10 years that exceeded Mr. Garrett's 3.80 percent GDP growth rate.[208]

Q. Do expectations for the utility industry support a reversion to GDP growth?

A. No. Growth rates for electric utilities are not expected to collapse into long-term growth. At least in part, growth in the electric utility industry is created by additional infrastructure investment. Contrary to the assumption that growth trends will somehow mirror GDP, investors recognize that the electric utility industry has entered a cycle of significant capital spending on utility infrastructure.

Q. What underlying fundamentals support investors' conclusion that electric utilities are embarking on a period of growth that will outpace the economy as a whole?

A. The need for additional infrastructure investment in the utility industry is being driven in large part by fundamental changes in generation mix and mandated transitions to renewable resources, with FERC noting that, "These shifts create a need for more transmission infrastructure to bring generation to load."[209] Consistent with these observations, the Edison Electric Institute has stated that its members commit more than $150 billion annually to electric utility infrastructure investment.[210]

[208] The Value Line Investment Survey (May 10, Jun. 7 and Jul. 19, 2024).
[209] *Electric Transmission Incentives Policy Under Section 219 of the Federal Power Act*, Notice of Proposed Rulemaking, 170 FERC ¶ 61,204, at P 27 (2020).
[210] Edison Electric Institute, Issues & Policy: *Finance & Tax,* https://www.eei.org/issuesandpolicy/Pages/FinanceAndTax.aspx (last visited Jul. 17, 2024).

Similarly, the investment community also understands that utilities are facing the prospect of a long-term commitment to infrastructure investment. For example, S&P estimated that industry capex during 2024 and 2025 will total approximately $173 billion and $177 billion, which amounts to an increase of more than 20% over 2022 levels.[211] As S&P concluded:

> Multiple drivers are expected to impel elevated spending over the next several years, such as pent-up demand to replace and modernize aging infrastructure and the impact from the significant number of states having renewable portfolio standards that incorporate large expansions in low-carbon generation. Also, federal infrastructure investment plans to shift the nation's power generation network to zero-carbon sources by 2035 will come to fruition. . . . The nation's electric and gas utilities are investing in updating aging transmission and distribution, or T&D, systems; building new gas, solar and wind generation; and implementing new technologies, such as those associated with smart meter deployment, smart grid systems, cybersecurity measures and battery storage.[212]

The report further concluded that, "These considerable levels of spending are expected to serve as the basis for solid profit expansion in the sector *for the foreseeable future*."[213]

Q. Is Mr. Garrett's dependence on GDP growth rates consistent with his own description of the electric utility industry?

A. No. Mr. Garrett distinguishes between utilities and "high-growth" firms, noting that, "For mature, low-growth firms such as utilities … estimating the sustainable growth rate is more transparent."[214] In other words, because utilities "are already in their 'sustainable,' low growth stage,"[215] near-term growth rates—such as the securities analysts'

[211] S&P Global Market Intelligence, Seismic shift in capex plans reported by utilities for 2023 through 2025, Financial Focus (Mar. 16, 2023).
[212] *Id.*
[213] *Id*. (emphasis added).
[214] Garrett, Exh. DJG-1T at 20:6-7.
[215] *Id.* at 21:21.

growth rates considered in my DCF application—provide a reasonable guide to investors' expectations.

Q. What other information indicates that the long-term GDP forecast referenced in Mr. Garrett's "sustainable growth" DCF model is unlikely to equate with investors' growth expectations for common stocks?

A. As noted earlier, Mr. Garrett bases his DCF growth rate for every electric utility on the long-term GDP projections of the CBO). But the purpose of the CBO is not to serve as a resource for investors and its published projections are not likely to represent a realistic proxy for investors' expectations. Rather, the CBO's role is to conduct independent analyses of budgetary and economic issues to support the Congressional budget process and its mission is to help Congress make effective budget and economic policy. In performing these specific duties, the CBO's projections are based on the assumptions that current laws governing taxes and spending will generally remain unchanged.

While assuming a continuation of prevailing fiscal policies may provide a useful baseline for legislators, this assumption is divorced from the realities faced by the investment community in assessing future expectations. For example, the June 2023 CBO source relied on by Mr. Garrett notes that it reflects economic developments through March 30, 2023, which "do not reflect the economic effects of administrative actions, regulatory changes, legislation, or economic developments after December 6, 2022, when that economic forecast was finalized."[216] As the CBO makes clear:

> Budgetary outcomes are hard to predict, particularly over the long run. Even if federal laws remained unchanged, CBO's budget projections would be subject

[216] Congressional Budget Office, *The 2023 Long-Term Budget Outlook* (Jun. 28, 2023), at 13 https://www.cbo.gov/system/files/2023-06/59014-LTBO.pdf.

> to considerable uncertainty. If developments in the economy, demographics, or other factors that affect revenues and outlays diverged from the agency's projections, budgetary outcomes would diverge as well. That uncertainty increases over time because changes in factors that affect the budget are difficult to anticipate over long time horizons.[217]
>
> ***
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> CBO's long-term budget projections give lawmakers a point of comparison from which to measure the effects of policy options or proposed legislation; they are not predictions of budgetary outcomes. Moreover, the budget projections are uncertain because they depend on the agency's economic and demographic projections, which are themselves uncertain.[218]
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> ***
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> CBO's budget projections are intended to show what would happen to federal spending, revenues, deficits, and debt if current laws governing spending and taxes generally remained the same. But even if federal laws remained unchanged over the next three decades, actual budgetary outcomes would differ from CBO's projections because of unanticipated changes in economic conditions and in other factors that affect federal spending and revenues. Moreover, those outcomes will depend on future legislative action, which could increase or decrease budget deficits. The uncertainty in CBO's budget projections increases in later years of the projection period because changes in the economy, demographics, and a variety of other factors are more difficult to anticipate over longer time horizons.[219]
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> ***
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> CBO's economic projections are subject to a high degree of uncertainty. For instance, the possibility that growth in the labor force or in productivity could be faster or slower than expected makes CBO's projections of labor market conditions and economic output uncertain. Other key sources of uncertainty are future monetary policy and the path of interest rates. For example, uncertainty about the path of interest rates contributes to uncertainty about the impact that higher deficits and debt would have on the economy. And geopolitical events, such as the war in Ukraine, add to the uncertainty of the economic outlook.[220]

Forecasts are inherently uncertain and the longer the forecast horizon the greater the doubt as to the meaningfulness of the data. Mr. Garrett presents no evidence to support the assumption that investors' anticipated growth for his proxy companies will be equal to long-

[217] *Id.* at 5.
[218] *Id.* at 10.
[219] *Id.*
[220] *Id.*

term growth of the overall economy, but in any event, reliance on highly uncertain estimates as to the state of the U.S. economy in 2053 must be discounted accordingly. Reliance on CBO's forecasts undermines the relevance of Mr. Garrett's "sustainable growth" DCF model, and his results from this application should be given no weight.

Q. Mr. Garrett submitted testimony on behalf of PC in Avista's most recent rate proceeding in Washington.[221] What were the Commission's conclusions regarding his ROE analyses?

A. The Commission rejected Mr. Garrett's ROE analyses, including his reference to a long-term GDP growth estimate from the CBO. In a December 12, 2022, final order, the WUTC stated:

> Avista witness McKenzie, on behalf of the Settling Parties, critiques Public Counsel's analyses, arguing that they misapply risk philosophies and are undermined by methodological flaws. We agree and note, first, flaws with Public Counsel's over reliance on long-term forecast of Gross Domestic Product (GDP) from the Congressional Budget Office (CBO) due to CBO's own characterization of its projections as "very uncertain" and exacerbated by the unknown effects of the pandemic, and, second, Public Counsel's reliance on a market risk premium based upon the assumption that a long term growth rate would equal the then-current yield on United States' Treasury bonds. During these consolidated proceedings, the CIP inflation increased to over 9 percent. In part due to changing economic conditions since its filed testimony, Public Counsel's proposals based upon assumptions of a 3.8 percent nominal growth rate are simply too tenuous to be persuasive.[222]

In the same order, the Commission concluded that Mr. Garrett's recommendation "would be a shock to Avista's financial integrity and impact its ability to attract capital on reasonable terms," and that, "Ultimately, we find Public Counsel's analyses and

[221] Washington Utilities and Transportation Commission, Docket Nos. UE-220053, UG-220054, and UE-210854 (*Consolidated*), *Response Testimony of David J. Garrett* (Jul 29, 2022).
[222] Washington Utilities and Transportation Commission, Docket Nos. UE-220053, UG-220054, and UE-210854 (*Consolidated*), Final Order 10/04 (Dec. 12, 2022) at P 161.

recommendations unconvincing and unpersuasive because they are too speculative and unreliable."[223] Nothing has changed that would warrant a departure from these findings.

Q. Mr. Garrett considers Avista's historical load growth and customer growth to support his contention that "the long-term growth rate input in a sustainable growth DCF Model should not exceed GDP."[224] What is your response?

A. First, I note that Mr. Garrett's estimate of 3.8 percent long-term GDP growth is not the *ceiling* growth rate in his "sustainable growth" version of the DCF model, it is the *only* growth rate. Second, Avista's historical load growth and customer growth have nothing to do with investors' forward-looking expectations for earnings growth in today's capital markets. If Mr. Garrett thought that annual historical growth rates of -0.5 percent, 2.4 percent and 1.3 percent were relevant to Avista's cost of equity, he could have used these values to implement the DCF model, but he did not. Citation to these figures is nothing more than a misguided attempt to justify the extreme 3.8 percent growth assumption within Mr. Garrett's "sustainable growth" DCF model.

Q. Can you illustrate the folly inherent in Mr. Garrett's 3.8 percent "sustainable growth" assumption?

A. Yes. Of the firms included in Mr. Garrett's proxy group, Otter Tail Corp. has the lowest dividend yield (2.1 percent) and the highest projected DPS growth rate (7.0 percent).[225] Because Mr. Garrett's "sustainable growth" DCF approach assigns the same 3.8 percent growth rate to every firm in the industry, the implied cost of equity for Otter Tail

[223] *Id.* at P 163.
[224] Garrett, Exh. DJG-1T at 24:7-14.
[225] Garrett, Exh. DJG-7.

Corp. (6.0 percent) is the lowest estimate. In other words, the practical impact of Mr. Garrett's approach is that differences in ROE are explained only by differences in dividend yield.

This outcome violates basic tenets of securities valuation and the DCF model. Expectations are presumed to be a major determinant of stock prices, with investors bidding up the prices of firms with greater growth potential in anticipation of higher future cash flows. In turn, higher stock prices result in lower dividend yields. But under the flawed paradigm of Mr. Garrett's "sustainable growth" approach, such distinctions are completely ignored. This is not realistic and highlights a severe weakness in Mr. Garrett's analysis.

Q. Please summarize your objection to Mr. Garrett's reference to GDP growth rates in applying the DCF model.

A. Mr. Garrett presents no meaningful information to suggest that earnings growth rates of utilities are limited to the growth rate in GDP. There is no link between Mr. Garrett's growth rate ceiling and the actual expectations of investors in the capital markets, which are the determining factor in any analysis of a fair ROE.

Q. Does Mr. Garrett's decision to include illogically low DCF results bias his DCF cost of equity?

A. Yes. As I explained earlier and in my direct testimony, DCF estimates that are implausibly low or high should be eliminated when evaluating the results of this method, and such screens have been employed by regulators such as FERC.[226] In his final DCF results, Mr. Garrett includes DCF estimates as low as 5.7 percent, 6.0 percent, 6.2 percent (twice), 6.6 percent and 6.7 percent.[227] Clearly, these values are far below any reasonable estimate of the

[226] McKenzie, Exh. AMM-1T at 46.
[227] Garrett, Exh. DJG-7.

cost of capital for Avista in today's capital markets, especially in light of the fact that Baa utility bond yields averaged 5.83 percent in June 2024.

C. Capital Asset Pricing Model

Q. How does Mr. Garrett arrive at his CAPM ROE recommendation?

A. Mr. Garrett conducts a traditional CAPM analysis, which produces an ROE of 9.6 percent. He also conducts a "Hamada" variation of the CAPM model, which results in an ROE of 9.2 percent.[228]

Q. Does Mr. Garrett rely on the result of his traditional CAPM in formulating his ultimate ROE recommendation of 8.5 percent for Avista?

A. No. Mr. Garrett says that "the unadjusted CAPM result of 9.6 percent is not accurate without further adjustment" because Avista's equity ratio is higher than that of his proxy group, and hence he claims that "Avista has less financial risk."[229] Accordingly, Mr. Garrett excludes his 9.6 percent traditional CAPM result in arriving at his final recommendation for Avista.[230] I discuss why Mr. Garrett's exclusion of his traditional CAPM result is wrong in further detail below in the section pertaining to capital structure.

Q. What is the fundamental problem underlying both of Mr. Garrett's applications of the CAPM?

A. Like Mr. Parcell, Mr. Garrett did not look directly at an equity risk premium based on current expectations, which is what is required in order to properly apply the CAPM. Rather, he subjectively selects three dated sources culled from the internet, giving

[228] Mr. Garrett reports an adjusted CAPM result of 8.9 percent at page 36 of Garrett, Exh. DJG-1T, but this conflicts with the 9.2 percent value reported at page 56 and on Garrett, Exh. DJG-13 and DJG-16.
[229] Garrett, Exh. DJG-1T at 3:4-4:8.
[230] *Id.*

them primary (75 percent) weight in his MRP estimation. Mr. Garrett based the MRP used to apply the CAPM on a selected survey from the IESE Business School, a number cited in a Kroll (formerly Duff & Phelps) report, a number selected from the website of a NYU finance professor, as well as his own calculation.[231]

While there are many potential definitions of the MRP, the only relevant issue for application of the CAPM in a regulatory context is what return investors currently expect to earn on money invested today. In contrast to Mr. Garrett, my approach represents a straightforward and direct approach to answer this question.

Q. What are the shortcomings with the IESE, Damodaran and Kroll sources cited by Mr. Garrett?

A. Mr. Garrett cites a 5.5 percent MRP sourced from *Market Risk Premium and Risk-Free Rate used for 96 countries in 2024* (IESE Bus. School 2024).[232] This survey is the result of a mass solicitation to more than 14,000 email addresses, out of which approximately 1,600 responses were received.[233] While many of the responses were undoubtedly from informed professionals, there is no ability to verify the experience or familiarity of the respondents with the subject matter. In addition, the wording of the surveys is imprecise and open to interpretation. For example, the survey relied on by Mr. Garrett simply asks, "The Market Risk Premium that I am using in 2024 for USA is _____%,"[234] which is entirely

[231] Garrett, Exh. DJG-1T at 35:13-14, Figure 5 and Garrett, Exh. DJG-11 (citing 5.5 percent CAPM equity risk premium from IESE Business School Survey, 5.5 percent CAPM equity risk premium from Kroll (formerly Duff & Phelps) Report, 4.5 percent from Dr. Aswath Damodaran, and 5.1 percent from his own calculation).
[232] Pablo Fernandez, et al., *Survey: Market Risk Premium and Risk-Free Rate used for 96 countries in 2024* (IESE Bus. School 2024), copy available at: https://papers.ssrn.com/sol3/Delivery.cfm/SSRN_ID4754347_code12696.pdf?abstractid=4754347&mirid=1.
[233] *Id.* at 2.
[234] *Id.* at 13.

unclear. The respondent has no idea whether he or she is being queried for a risk premium during 2024, or over some other time period; nor is the basis on which the risk premium is calculated even specified.

While Mr. Garrett characterizes the *IESE Business School* publication as an "expert survey,"[235] published comments of respondents cast significant doubt on their credibility and the reliability of the results. For example:

> I do not use a MRP or a RF rate for three reasons: 1) I am retired. 2) I do not accept their validity. 3) The "new normal" makes no economic or financial sense.
>
> "The subject how is truly loyal to the Chief Magistrate will neither advise nor submit to arbitrary measures." Junius
>
> Interest rates are artificially well below historic levels. Thus, bonds and equities values are artificially inflated.
>
> One hint: It might make sense to ask more precisely about the premium before/after personal income tax. For Germany the premium would differ and I am not sure how people would interpret the question.[236]

These responses undermine any confidence in the veracity of the IESE survey and its usefulness in this case.

Meanwhile, the Kroll publication relied on by Mr. Garrett does not provide any specific guidance as to the basis of the 5.5 percent MRP it reports, but prior editions have cited "financial literature and various empirical studies,"[237] as well as listing "Historical Real GDP Growth" and "Damodaran Implied ERP Model" as two of the factors it considered in its

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[235] Garrett, Exh. DJG-1T at 32:12.

[236] Pablo Fernandez, et al., *Survey: Market Risk Premium and Risk-Free Rate used for 96 countries in 2024* (IESE Bus. School 2024), copy available at: https://papers.ssrn.com/sol3/Delivery.cfm/SSRN_ID4754347_code12696.pdf?abstractid=4754347&mirid= 1.

[237] Duff & Phelps, *Duff & Phelps Decreases U.S. Equity Risk Premium Recommendation to 5.0%, Effective February 28, 2013*, Client Alert (Mar. 20, 2013).

risk premium recommendation.[238] This Kroll source is essentially a "black box", which offers no transparent indication as to how the MRP is calculated.

Meanwhile, the approach used to derive the 4.5 percent MRP from the Damodaran source cited by Mr. Garrett assumes that the return on the market as a whole is 8.48 percent,[239] which is significantly less than the allowed ROE on electric utility stocks. Given that utilities are considered to be less risky than the market as a whole, this assumption makes no economic sense. In addition, Damodaran forces the growth rate for every firm in the S&P 500 to a constant long-term rate after five years.[240] In addition, Damodaran inexplicably assumes that this long term rate of growth will equal the current yield on Treasury bonds, or 3.88 percent in the most recent rendition.[241] This is significantly lower than the current 4.65 percent Treasury bond rate that Mr. Garrett cites in his own testimony,[242] and lower than his "sustainable" growth rate of 4.2 percent. There is no logical link between investors' long-term growth expectations for common stocks and the 3.88 percent Treasury bond yield underlying the 4.5 percent MRP cited by Mr. Garrett, and I know of no credible source of investment guidance that is expecting growth for all companies in the economy to collapse to less than 4.0 percent over the next five years.

[238] Duff & Phelps, *Duff & Phelps U.S. Equity Risk Premium Recommendation Decreased from 5.5% to 5.0%, Effective September 5, 2017*, Client Alert (Oct. 30, 2017).
[239] Aswath Damodaran, *Equity Risk Premiums (ERP): Determinants, Estimation, and Implications—The 2024 Edition* (Mar. 5, 2024) at 101, https://papers.ssrn.com/sol3/Delivery.cfm/SSRN_ID4751941_code20838.pdf?abstractid=4751941&mirid=1 (last visited Jul. 28, 2024).
[240] *Id.*
[241] *Id.*
[242] Garrett, Exh. DJG-1T at 28:19.

Q. Mr. Garrett also develops his own implied MRP using a derivation of the DCF model.[243] What is the primary difference between this analysis and the approach you used?

A. The fundamental difference is that my analysis looks to the future return expectations of investors in the capital markets, while Mr. Garrett's "implied equity risk premium" methodology is based on historical data. As Mr. Garrett explained, the inputs to his calculations are based on data "for the S&P 500 over the past six years."[244] In other words, the actual return on the market is completely backward-looking.

As a result, Mr. Garrett's methodology is inconsistent with the assumptions of the CAPM, which is predicated on investors' forward-looking expectations. As Mr. Garrett granted, "what matters in the CAPM model is the current and forward-looking risk premium."[245]

Q. Are you aware of any reputable sources that suggest a much higher market rate of return than those selected by Mr. Garrett?

A. Yes. Morningstar, which is a widely recognized source of current investment information, reports a current dividend yield of 1.43 percent for the S&P 500, with an expected long-term EPS growth rate of 11.82 percent.[246] This implies an expected rate of return for the S&P 500 of 13.25 percent, versus the 9.85 percent used in Mr. Garrett's application of the CAPM model.[247]

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[243] *Id.* at 32:18-35:10.
[244] *Id.* at 34:13.
[245] *Id.* at 31:2-3.
[246] Morningstar, *S&P 500 PR*, https://www.morningstar.com/indexes/spi/spx/portfolio (last visited Jul. 16, 2024).
[247] 4.65 percent risk-free rate + 5.20 percent MRP = 9.85 percent.

Q. Mr. Garrett takes issue with the MRP component of your CAPM analysis.[248] Can you characterize the nature of his argument?

A. Mr. Garrett presents no argument as to why my MRP calculation is theoretically unsound. He merely contends that my estimates are "far out of line with other reasonable, objective estimates for the ERP,"[249] where "reasonable, objective estimates" are the three risk premiums he cites plus his own calculation, ranging from 4.5 percent to 5.5 percent, and averaging 5.2 percent.[250] I have already discussed the problems associated with each of Mr. Garrett's risk premiums. Beyond asserting that my equity risk premiums are "clearly not within the range of reasonableness,"[251] Mr. Garrett does not provide any further explanation as to why my equity risk premiums should be disregarded.

Q. Is the method you use to compute the CAPM equity risk premium supported by academic research?

A. Yes. As I noted earlier in response to Mr. Parcell, regulators and recognized research studies reported in the financial literature support and adopt the exact same methodology to estimate the market rate of return underlying my CAPM result. For instance, *Harris and Marston* notes that "a 'market' required rate of return is calculated using each dividend paying stock in the S&P 500 index for which data are available."[252] In describing this process, the authors state:

> This expectational approach employs the dividend growth model (hereafter referred to as the discounted cash flow or DCF model) in which a consensus

[248] Garrett, Exh. DJG-1T at 37:11-39:7.
[249] *Id.* at 39:1-2.
[250] *Id.* at 35:13-14, Figure 5.
[251] *Id.* at 39:6-7.
[252] Robert S. Harris and Felicia C. Marston, *Estimating Shareholder Risk Premia Using Analysts' Growth Forecasts*, Fin. Mgmt. (Summer 1992) ("*Harris and Marston*").

> measure of financial analysts' forecasts (FAF) of earnings is used as a proxy for investor expectations.
>
> ***
>
> For each month, a "market" required rate of return is calculated using each dividend paying stock in the S&P 500 index for which data are available. The DCF model in Equation (2) is applied to each stock and the results weighted by market value of equity to produce the market required return.[253]

Consistent with my CAPM approach, a 1993 study published in the *Financial Review* noted that, "[f]ollowing prior research," the authors evaluated the expected market rate of return by applying the same constant growth DCF approach supporting my CAPM results.

Q. Are there other deficiencies associated with Mr. Garrett's CAPM analyses?

A. Yes. Like Mr. Parcell, Mr. Garrett ignores the need to adjust for the implications of firm size in applying the CAPM. The result of this key deficiency is a CAPM estimate that is too low.

Q. Mr. Garrett claims a CAPM size adjustment is unwarranted because "the size premium is a dead phenomenon."[254] Is he correct?

A. No. Mr. Garrett cites the book *Triumph of the Optimists* from 2002, which suggested that the size effect is not present in each and every year. The seminal study by Banz (1981) found a size effect over a forty-year period. It may be true that the size effect was not present for several years, but this observation does not negate the fact that the investment community still seriously considers the size effect within the CAPM model.

A 2018 article published in *Business Valuation Review* refuted similar criticisms raised

[253] *Id.*

[254] Garrett, Exh. DJG-1T at 41:2-3.

by Mr. Garrett and concluded that "the size premium critique . . . is not warranted."[255] In contrast to Mr. Garrett's assertions, the *Grabowski* article noted that "none of the academic papers throughout the last three decades have qualified the [size premium] as a statistical error," and a 2019 publication available from the National Association of Certified Valuators and Analysts documented the continued relevance of the size adjustment in applying the CAPM:

> [A] beta-adjusted size premium is also an indication of the relative market performance of small-cap versus large-cap stocks, but is typically used for a very specific purpose: as a "size" adjustment within the context of the capital asset pricing model (CAPM) when developing cost of equity capital estimates. A size adjustment is typically applied to the CAPM to make up for the fact that the betas of smaller companies do not fully explain their observed returns. Because the CAPM already includes a beta input in its textbook specification, the size premium is then "beta adjusted" to remove the portion of realized excess return that is attributable to beta, thereby isolating the size effect's contribution to realized excess return and avoiding double counting the impact of each factor.
>
> ***
>
> Another way of saying this is that within the context of the CAPM, the betas of small-cap companies do not fully account for (or explain) their actual returns. Because the amount of this difference (what actually happened versus what CAPM predicted) varies with "size" (in this case, as measured by market capitalization) we call it a "size premium".[256]

This article went on to conclude that "valuation professionals typically add a 'size premium' to the base CAPM equation. . ."[257]

And while Mr. Garrett cites the *Ibbotson SBBI Classic Yearbook* from 2015 for the

[255] Roger A. Grabowski, *The Size Effect Continues To Be Relevant When Estimating the Cost of Capital*, Business Valuation Review (Fall 2018) at 93-109.
[256] *Using a Non-Beta-Adjusted Size Premium in the Context of the CAPM Will Likely Overstate Risk and Understate Value* (Jan. 30, 2019), http://quickreadbuzz.com/2019/01/30/business-valuation-grabowski-harringtonsing-a-non-beta-adjusted-size-premium/ (last visited Feb. 23, 2023).
[257] *Id.*

proposition that realized returns for large-cap stocks can exceed those of small-cap stocks,[258] this same publication includes empirical results that quantify the continued validity of the CAPM size adjustment.[259] As this study noted, "The capital asset pricing model, or CAPM, does not fully account for the higher returns of small-cap stocks," concluding that, "This size-related phenomenon has prompted a revision to the CAPM, which includes a size premium."[260] Kroll (formerly Duff & Phelps) continues to publish the study of realized returns first compiled by Ibbotson, and its most recent study for 2023 continues to show that returns for smaller firms are higher than those estimated by the CAPM. Mr. Garrett's claim that the size effect has disappeared is without merit.

Q. Mr. Garrett disagrees with your ECAPM results.[261] How do you respond?

A. First, Mr. Garrett asserts that using Value Line betas accounts for any tendency of the CAPM to underestimate the cost of equity for low-beta stocks. But as I noted in my direct testimony,[262] the ECAPM is simply a variant of the traditional CAPM approach that is designed to correct for an observed bias in the CAPM result. The modification reflected in the ECAPM is distinct from the Value Line adjustment of estimated betas for the demonstrated tendency to regress toward the mean. The ECAPM reflects a refinement to adjust for a systematic tendency of low beta portfolios to over-earn and high beta portfolios to under-earn relative to the predictions of the CAPM capital market line. In other words, even if a firm's beta value is estimated with perfect precision, the CAPM would still understate the return for

[258] Garrett, Exh. DJG-1T at 40, footnote 62.
[259] Morningstar, *2015 Ibbotson SBBI Classic Yearbook*, Morningstar, at 109.
[260] *Id.* at 108.
[261] Garrett, Exh. DJG-1T at 43:6-22.
[262] McKenzie, Exh. AMM-3 at 20-22.

low-beta stocks and overstate the return for high-beta stocks.[263] The ECAPM and the use of adjusted betas represent two separate and distinct issues in estimating returns, and both are useful for improving the traditional CAPM results.

Second, Mr. Garrett suggests that the method Value Line uses to adjust beta for regression to the mean may lead to overstated results for low-beta industries.[264] In fact, however, the "Blume" adjustment adopted by Value Line is the predominant approach that has been adopted by other recognized sources of beta values, such as Bloomberg. As one recognized researcher has noted:

> The most important difference of these services is the adjustment method used in the calculation of beta. Most services utilize the Blume methodology outlined earlier in this chapter.[265]

Value Line is recognized as being the most widely available source of investment information to investors, and there are many citations to textbooks and other sources supporting its usefulness as a guide to investors' expectations.[266] Coupled with the administrative benefits associated with reliance on beta values from Value Line, including a consistent methodology by an independent third-party and immunity to selective changes in assumptions, my evidence supports continued reference to Value Line's published beta values

[263] Furthermore, there is academic support for the use of adjusted betas in alternative versions of the CAPM. For example, *On the CAPM Approach to the Estimation of A Public Utility's Cost of Equity Capital* noted that "[t]he assertion that risk premiums are proportional to NYSE betas is shown to result in downward (upwards) biased predictions of the cost of equity for a public utility having a NYSE beta that is less (greater) than unity," and concluded that adjusted betas, such as those published by Value Line, are "better predictors than are unadjusted betas." Robert Litzenberger, Krishna Ramaswamy, and Howard Sosin, *On the CAPM Approach to the Estimation of A Public Utility's Cost of Equity Capital*, 369-393 Journal of Finance (May 1980).

[264] Garrett, Exh. DJG-1T at 43:13-15.

[265] Ibbotson Associates, *2005 Yearbook, Valuation Edition* at 25.

[266] *See, e.g.,* Roger A. Morin, *New Regulatory Finance*, Pub. Utils. Reports, Inc. (2006) at 71 ("Value Line is the largest and most widely circulated independent investment advisory service, and influences the expectations of a large number of institutional and individual investors.").

in applying the CAPM approach.

Finally, Mr. Garrett also contends that my ECAPM analysis "suffers from the same overestimated risk-free rate and ERP inputs"[267] as my CAPM model. As discussed earlier, there is no merit to Mr. Garrett's contention regarding my equity risk premium. As for my risk-free rate, Mr. Garrett did not previously take any issue with it, so it is unclear what he is referring to here.

D. Other ROE Issues

Q. Mr. Garrett rejects your risk premium analysis, claiming that an additional risk premium analysis is "unnecessary" in lieu of the CAPM, which he characterizes as "a real risk premium model."[268] How do you respond?

A. Mr. Garrett is correct that the CAPM and the risk premium model are two different types of a very broad category of risk premium models. However, each model measures risk differently, each has its strengths and weaknesses, and neither is inherently superior to the other. As I explain in my direct testimony,[269] risk premium models like the one I employ are widely utilized for estimating the cost of equity, and they are routinely referenced by the investment community and in academia and regulatory proceedings. In fact, Mr. Parcell sponsors ROE estimates ranging from 9.8 percent to 10.8 percent from a risk premium model that is akin to mine.[270]

[267] Garrett, Exh. DJG-1T at 43:19-20.
[268] *Id.* at 42:9.
[269] McKenzie, Exh. AMM-3 at 22-23.
[270] Parcell , Exh. DCP-1T at 5:17.

Q. Does Mr. Garrett recognize the importance of using multiple models in ROE analysis?

A. Yes. Mr. Garrett says:

> It is preferable to use multiple models because the results of any one model may contain a degree of imprecision, especially depending on the reliability of the inputs used at the time of conducting the model. By using multiple models, the analyst can compare the results of the models and look for outlying results and inconsistencies. Likewise, if multiple models produce a similar result, it may indicate a narrower range for the cost of equity estimate.[271]

My reference to the risk premium approach is consistent with this guidance.

Q. Mr. Garrett claims that your risk premium model "is used to justify a cost of equity that is much higher than one that would be dictated by market forces."[272] Is this a legitimate criticism of your risk premium method?

A. No. His claim that my risk premium approach is not market-based is incorrect. In my approach, the cost of equity is estimated by first determining the additional return investors require to forgo the relative safety of bonds and to bear the greater risks associated with common stock, adjusting this risk premium to reflect current capital market conditions, and then adding this equity risk premium to the current yield on bonds. By accounting for the impact of current bond yields, my risk premium results are directly linked to market-based data.

In fact, the risk premium method offers certain advantages to DCF and CAPM techniques. Unlike DCF models, which indirectly impute the cost of equity, risk premium methods directly estimate investors' required rate of return by adding an equity risk premium

[271] Garrett, Exh. DJG-1T at 8:16-22.
[272] *Id.* at 42:21-22.

to observable bond yields. Compared to the CAPM, the risk premium approach is simpler and less reliant on restrictive assumptions. For example, in describing the CAPM, Mr. Garrett lists eight key requirements underpinning this model, including 1) investors have identical time horizons, 2) there are no taxes, and 3) investors can borrow and lend unlimited amounts at the risk-free rate.[273] None of these assumptions are met in the real world. So while DCF and CAPM methods are valuable tools, the risk premium method is also helpful. It is tied directly to observable capital market conditions and free from restrictive and unrealistic assumptions.

I should also note that authorized returns, such as those analyzed within my and Mr. Parcell's risk premium approaches, are typically based on expert witnesses' estimates of investor-required returns at time periods contemporaneous to these various rate proceedings. In other words, *they incorporate substantial market data*. Mr. Garrett's view that my risk premium approach is not market-based is misplaced and should be ignored.

Contradicting Mr. Garrett's conclusion that risk premium methods "create an inappropriate link between market-based factors … with awarded returns on equity,"[274] FERC has concluded that "investors expect to earn a return on a stock investment that reflects a premium above the return they expect to earn on a bond investment, and that the Risk Premium model is a method of estimating the premium over bond yields that investors require to invest in electric utility equities."[275]

[273] *Id.* at Appendix B, page 1.
[274] *Id.* at 42:19-21.
[275] *Ass'n. of Bus. Advocating Tariff Equity, et al.*, Opinion No. 569-B, 173 FERC ¶ 61,159 at P 122 (2020).

Q. Mr. Garret claims that "Unlike the CAPM, which is found in almost every comprehensive financial textbook, the types of risk premium models used by Mr. McKenzie in this case are almost exclusively found in the texts and testimonies of utilities witnesses."[276] Do you agree?

A. No. Broadly speaking, risk premium models like the ones that Mr. Parcell and I employ are sometimes referenced as "build-up" methods, whereby the cost of equity is built up from a risk-free rate by adding relevant risk premiums to arrive at a risk-adjusted cost of equity specific to a particular business. Build-up methods for estimating the cost of equity are widely referenced in finance and valuation texts, and are not the exclusive domain of utility witnesses. For example, the seminal textbook *Valuing a Business* by Shannon P. Pratt references the build-up method,[277] as do well-regarded finance textbooks.[278] Mr. Garrett's claim that risk premium models are rare outside regulatory proceedings is unfounded.

Q. Mr. Garrett contends that the expected earnings analysis you use is not a reasonable method for estimating a fair ROE for Avista.[279] Do you agree?

A. No. As I discuss earlier and in my direct testimony,[280] expected earned rates of return for other utilities provide another useful benchmark of reasonableness. Indeed, Mr. Parcell explains the basis of the comparable earnings (CE) methodology, on which my

[276] Garrett, Exh. DJG-1T at 42:17-19.

[277] Shannon P. Pratt and ASA Educational Foundation, *Valuing a Business: The Analysis and Appraisal of Closely Held Companies*, 6e, New York: McGraw Hill (2022). *See also*, Shannon P. Pratt, *Cost of Capital: Estimation and Applications*, New York: John Wiley & Sons (1998).

[278] *See, e.g.*, Eugene F. Brigham, Louis C. Gapenski, and Michael C. Ehrhardt, *Financial Management, Theory and Practice*, 9e, The Dryden Press at 131 (Describing the nominal interest rate as being composed of a risk-free rate of interest, plus several additional premiums that reflect risk, inflation, and liquidity).

[279] Garrett, Exh. DJG-1T at 46:8-47:7.

[280] McKenzie, Exh. AMM-3 at 26-28.

expected earnings analysis is based:

> 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 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.[281]

Q. Mr. Garrett objects to your non-utility DCF analysis.[282] How do you respond?

A. Mr. Garrett suggests that non-utility DCF analysis is not informative because "Non-utility companies are relatively incomparable to Avista."[283] The simple observation that a firm operates in non-utility businesses says nothing at all about the overall investment risks perceived by investors, which is the basis for a fair ROE. As shown in Table 3 to my direct testimony, objective credit ratings and Value Line risk measures indicate lower risk for my non-utility group than for either my proxy group or for Avista. This objective evidence directly refutes Mr. Garrett's concern that "The risk profiles of competitive firms will tend to be higher than those of low-risk firms."[284]

E. Capital Structure

Q. What is Mr. Garrett's position with respect to Avista's capital structure?

A. While Mr. Garrett does not recommend any adjustment to Avista's requested capital structure, he proposes an adjustment to his CAPM results for the Company in order to

[281] Parcell, Exh. DCP-1T at 47:20-48:6.
[282] Garrett, Exh. DJG-1T at 26:6-19.
[283] *Id.* at 26:8-9.
[284] *Id.* at 26:11-12.

"align Avista's capital structure to the proxy group's capital structure."[285] Mr. Garrett suggests this can be accomplished with a "Hamada Model."[286]

Q. Does Avista's requested capital structure distinguish the Company's overall risks from others in the utility industry?

A. No. As documented in my direct testimony,[287] the Company's proposed 48.5 percent common equity ratio is within the rate of 40.1 percent to 80.4 percent maintained by comparable utility operating companies, and below the average of 50.6 percent. I note that 28 of these 45 operating companies have equity ratios equal to or greater than the 48.5 percent common equity ratio requested by Avista.[288] Avista's common equity ratio falls well within the 33.0 percent to 63.5 percent range of common equity ratios for my Utility Group, as well as within the 27.0 percent to 59.5 percent range of common equity ratios projected by Value Line for these same companies.

Q. Is this conclusion confirmed by reference to recent findings in other regulatory proceedings?

A. Yes. The table below presents the common equity ratios approved for electric and gas utilities over the past eight quarters, as reported by RRA Regulatory Focus:

[285] *Id.* at 54:13.
[286] *Id.* at 54:16-56:4.
[287] McKenzie, Exh. AMM-1T at 38.
[288] McKenzie, Exh. AMM-6, pages 2-3.

TABLE AMM-R6
ELECTRIC AND GAS UTILITY ALLOWED COMMON EQUITY RATIOS

	Electric				Gas			
	Low		**High**	**Average**	**Low**		**High**	**Average**
Q2-22	44.54%	--	52.00%	50.04%	48.00%	--	60.59%	52.77%
Q3-22	48.29%	--	53.37%	51.19%	47.00%	--	52.20%	50.52%
Q4-22	45.07%	--	58.22%	51.45%	45.00%	--	58.22%	51.75%
Q1-23	42.50%	--	52.50%	50.90%	45.16%	--	59.74%	53.89%
Q2-23	49.00%	--	52.50%	51.69%	50.00%	--	62.20%	56.18%
Q3-23	48.00%	--	60.70%	51.89%	48.00%	--	59.63%	52.88%
Q4-23	48.00%	--	56.06%	51.55%	48.00%	--	56.06%	51.27%
Q1-24	41.25%	--	53.72%	50.14%	51.00%	--	59.07%	53.86%
Average	**46.49%**	**--**	**55.05%**	**51.24%**	**47.31%**	**--**	**58.38%**	**52.75%**

Source: S&P Global Market Intelligence, *Major Rate Case Decisions*, RRA Regulatory Focus (Feb. 2023; Feb. 6 and Apr. 19, 2024). Excludes capital structures that include cost-free items.

As demonstrated in table above, the 48.5 percent common equity ratio requested by Avista falls below the average equity ratios approved for electric and gas utilities in the last eight quarters.

Q. Mr. Garrett supports his CAPM model adjustment on the basis that the Company's equity ratio is higher than the average for the proxy group. What is the fundamental flaw in this argument?

A. Focusing exclusively on capital structure, and the relative risk associated with debt leverage, ignores the fact that this is only one facet of a company's overall investment risk. The fair ROE is not evaluated in a vacuum; it is predicated on analyses for a group of comparable risk utilities, with the relative reliance on equity financing being only one factor considered in this overall assessment. As a result, there is simply no basis for Mr. Garrett's proposed CAPM adjustment based only on variations in equity ratios between individual

utilities.

Q. Is capital structure already considered by the credit rating agencies in their evaluation?

A. Absolutely. The ratings assigned to a utility are the result of a comprehensive evaluation of the utility's overall business and financial risks. The evaluation of financial risk involves an examination of financial data concerning earnings protection, capital structure, cash flow adequacy, and financial flexibility. The degree of financial leverage is one component that impacts investors' risk perceptions, with investors' current assessment of the Company's risks—as embodied in Avista's credit ratings—being contingent on its actual capitalization. Nevertheless, Mr. Garrett is operating under the misguided assumption that the Company could somehow reduce its equity ratio significantly from present levels without any ill effects on its credit standing or investors' risk perceptions.

Q. Is there any logical connection between this position and what takes place in real-world capital markets?

A. No. This line of reasoning is totally disconnected from the financial realities faced by utilities. Prudent management practices attempt to ameliorate higher business risk with offsetting lower financial risk. It is illogical to presume that the Company's equity ratio is "excessive" to maintain current credit ratings. If the financial parameters for Avista exceeded those necessary for its present credit ratings, then the rating agencies would have already upgraded the Company. In fact, S&P maintains a "Negative" outlook on Avista, warning investors of the potential for a downgrade in the Company's credit rating, citing

"weak credit metrics," which are expected to "fall below our downgrade thresholds."[289] Similarly, Moody's has noted that "weak credit metrics provide little cushion at the Baa2 rating level.[290] Any suggestion that the Company's equity ratio can be further reduced without regard to credit standing is simply not credible.

Q. Mr. Garrett offers a comparison of debt ratios for other industries in support of his insinuation that Avista's requested capital structure contains too much common equity.[291] Is this comparison probative?

A. No. Once again, Mr. Garrett's singular focus on the debt ratio ignores key considerations that influence a firm's use of debt leverage and investors' overall risk perceptions, which are paramount. There are many considerations in the capital structure decision. In general, the goal is to employ the mix of capital that minimizes the weighted average cost of capital, while ensuring the financial integrity of the firm and continuous access to capital, even during times of unfavorable market conditions.

Given the interplay between costs of debt and equity, the impact of taxes, bankruptcy costs, and the level of business risks (operating leverage), determining a firm's optimal capital structure is an imprecise exercise. In practice, capital structure decisions must be made by considering managements' judgment, numerical analysis, and investors' risk perceptions specific to each enterprise or industry. The fact that some industries may employ greater debt leverage than Avista while others use less is hardly surprising. As one recognized textbook in finance recognized, "As might be expected, wide variations in the use of financial leverage

[289] S&P Global Ratings, *Avista Corp.*, Ratings Score Snapshot (Dec. 8, 2023).
[290] Moody's Investors Service, *Avista Corp.*, Credit Opinion (Aug. 16, 2023).
[291] Garrett, Exh. DJG-1T at 53, Figure 9.

occur both across industries and among individual firms in each industry."[292] For example, debt ratios in the financial services industry reflect the fact that banks borrow large amounts of money to facilitate loans, which has no relevant comparison to electric utilities. Moreover, Mr. Garrett's Figure 9 does not provide the Commission with a complete picture of debt ratios associated with other sectors of the economy. A review of his underlying data source reveals that approximately one half of the industries covered have average book value debt ratios that fall *below* the 51.5 percent requested by Avista in this case.[293]

Finally, while book value has particular significance for regulated utilities, in the competitive world the focus is on market value capital structures. Indeed, regulated utilities have always been an exception to the general rule of financial theory and practice, in which market values are the appropriate indicia of capital structure. To be able to raise capital, competitive firms must pay returns that are competitive at the current market price of their securities, not the embedded book value of the mix of stock and bonds. S&P highlighted the problems associated with relying on book accounting data to assess financial leverage:

> The popular total-debt-to-capital ratio has the inherent weakness of measuring a firm's "going concern" equity value based on historical accounting. Basing the denominator on a market measure, as the supplemental ratio does, helps to correct some of this distortion.[294]

In *Cost of Capital, Estimation and Applications*, Shannon Pratt affirmed that market values are the only correct basis for the cost of capital:

> The critical point is that the relative weightings of debt and equity or other capital components are based on the market values of each component, not on

[292] Eugene F. Brigham and Louis C. Gapenski, *Financial Management Theory and Practice*, Dryden Press, Ninth ed. (1999) at 647.
[293] https://www.stern.nyu.edu/~adamodar/pc/datasets/dbtfund.xls.
[294] Standard & Poor's, *CreditStats: Adjusted Key U.S. Industrial Financial Ratios*, RatingsDirect, p. 5 (Aug. 13, 2002).

the book values.[295]

Reference to Mr. Garrett's source indicates that on a market value basis, the debt ratios for the represented industry groups averaged 27.4 percent, implying a common equity ratio of 72.6 percent.[296]

Q. What other failings are associated with Mr. Garrett's comparative analysis?

A. Mr. Garrett's simplistic comparison completely ignores the implications of higher debt ratios on overall investment risk. Many of the firms included in the industry groups surveyed by Mr. Garrett have credit ratings that fall well below investment grade.[297] There is a fundamental disconnect between the equity layer that is required to support Avista's existing credit standing and those that are associated with firms characterized by high-risk, speculative grade debt ratings. The Commission should reject Mr. Garrett's baseless industry comparison, as well as his CAPM capital structure adjustment, which substitutes his personal judgement in place of the experienced professionals who raise and invest capital for utility companies, the requirements of investors, and standard regulatory practice.

[295] Shannon P. Pratt, *Cost of Capital, Estimation and Applications*, John Wiley & Sons, Inc. (1998) at 45 (emphasis in original).

[296] https://www.stern.nyu.edu/~adamodar/pc/datasets/dbtfund.xls.

[297] For example, within Value Line's Air Transport industry group, Air Transport Services Group Inc. (BB+), Alaska Air Group (BB), Allegiant Travel (B+), American Airlines Inc. (B+), Delta Air Lines Inc. (BB+), JetBlue Airways Corp. (B), Spirit Airlines (CCC) and United Airlines Inc. (BB-) are all rated by S&P in the speculative grade category. Oil/Gas Distribution firms EnLink Midstream LLC (BB+) and Kinetik Holdings Inc. (BB+), as well as insurance firms Genworth Financial Inc. (BB-) and NMI Holdings Inc. (BB+) also fall in the junk bond category. Similarly, Lamar Advertising Co. (BB), OUTFRONT Media (B+) and Thryv Holdings (B), which are included in Value Line's Advertising sector, are also rated far below investment grade.

Q. Setting aside these realities, does the "Hamada" formula provide a meaningful basis on which to adjust the results of the traditional CAPM model?

A. No. Mr. Garrett's "Hamada" formula is the product of a purely theoretical exercise that has little basis in reality. For example, the theory underlying his deleveraging adjustment to beta is based on the market value capital structure. But Mr. Garrett ignores market value capitalization entirely and applies the adjustment using book values. In addition, the direct link between common equity ratios and beta values underlying Mr. Garrett's theoretical computations is not evident in the data for his proxy group companies.[298] In fact, the correlation coefficient between the beta values and debt ratios for Mr. Garrett's proxy utilities results is weak and statistically insignificant,[299] which indicates that higher beta values cannot be associated with higher debt ratios. This contrary result reinforces my earlier point that a firm's investment risks are impacted by a myriad of factors other than its degree of financial leverage.

Q. What is your response to Mr. Garrett's capital structure comments?

A. I do not agree with his recommendation to adjust the results of his CAPM model in order to account for Avista's requested common equity ratio. As I stated in my direct testimony,[300] the 48.5 percent common equity ratio requested by Avista is consistent with the Company's need to maintain its credit standing and financial flexibility, with the range of capitalizations for other operating utilities, and with the importance of an adequate equity

[298] The Hamada formula assumes that a lower common equity ratio would lead to a lower observed beta value.
[299] The resulting correlation coefficient is 0.027, which is indicative of a weak, positive relationship between beta and the debt ratio. Indeed, further regression analysis reveals that the relationship between the debt ratios and observed beta values for the firms in Mr. Garrett's proxy group lacks any degree of statistical significance.
[300] McKenzie, Exh. AMM-1T at 38-41.

layer to accommodate the pressures of funding significant capital investments.

The importance of a healthy equity layer is even more critical in the face of the much lower ROE recommendations from the Other Witnesses. If the Company is to maintain a balanced risk position, increased operating risk (in this case, reflected in the reduced ROE recommendations of the Other Witnesses) must be offset with decreased financial risk (reflected in a higher common equity ratio). In other words, the ROE cannot be set in a vacuum; the impact on the overall risk profile of the Company must be considered. It is simply not reasonable to compound the harmful effects of a lower ROE with a lower equity level.

IV. RESPONSE TO DR. KAUFMAN

Q. How does Dr. Kaufman arrive at his 9.25 percent recommended ROE for Avista?

A. It is not entirely clear. Dr. Kaufman conducts a multi-stage DCF analysis that results in a range of 8.9 percent to 9.3 percent, as well as a constant growth DCF analysis that generates a range of 8.5 percent to 9.0 percent.[301] Dr. Kaufman further implements CAPM analyses supporting a range of 7.9 percent to 9.2 percent and ECAPM applications that produce an 8.3 percent to 9.8 percent ROE range.[302] Dr. Kaufman observes that, "When the low … and high … cost estimates are excluded, the remaining models estimate a cost of capital range from 8.3 percent to 9.3 percent,"[303] which constitutes his reasonable ROE range. But later in his testimony, Dr. Kaufman references his "cost of capital range of 8.5 percent to 9.5

[301] Kaufman, Exh.LDK-1T at 22:7-8, Table 12.
[302] *Id.*
[303] *Id.* at 22:9-11.

percent."[304] In any case, Dr. Kaufman concludes by stating "I recommend Avista's Cost of Capital be reduced from the current authorized amount of 9.4 to 9.25 percent."[305]

Q. As a threshold matter, does Dr. Kaufman's recommendation to reduce Avista's ROE from 9.40 percent to 9.25 percent make economic sense?

A. No. As I documented earlier in my rebuttal testimony, trends in bond yields provide objective evidence that investors' required rate of return has increased significantly since Avista's current 9.40 percent ROE was established. The fact that Dr. Kaufman is proposing to decrease Avista's ROE when capital costs have demonstrably increased shows that his recommendation is divorced from fundamental financial principles and should be given no weight.

Q. Dr. Kaufman says his ROE analysis represents a "conservative approach" that includes "numerous conservative assumptions," as evidenced by a claim that his "range exceeds investor expectations for the market as a whole."[306] Does this make sense?

A. Not at all. Dr. Kaufman supports his reasoning with a claim that, "Investors currently expect the U.S. equity market to have total annual returns of 4 to 8 percent."[307] It makes no economic sense that investors could expect a 4 percent return on the market as a whole, when they can invest in risk-free, 30-year Treasury bonds and earn a return of 4.4 percent. Similarly, an 8 percent expected return on the market is nonsensical in light of the fact that allowed ROEs for electric and gas utilities, which are less risky than the market as a

[304] *Id.* at 56:18.
[305] *Id.* at 21:4-5.
[306] *Id.* at 21:9-10.
[307] *Id.*

whole, significantly exceed this threshold. Beyond that, Dr. Kaufman's own CAPM and ECAPM applications assume a total market return in a range of 9.4 percent to 11.3 percent.[308] Dr. Kaufman's 4 percent to 8 percent market return range is meaningless, and it cannot be used to make the case that his ROE recommendation for Avista is conservative in any way.

Later in his testimony, Dr. Kaufman claims that, "My recommended ROE of 9.25 percent is based on many conservative assumptions, such as the use of Avista's equity risk premium rather than Kroll's recommended cost of capital, and the use of Avista's size premium adjustments."[309] But Table 12 to Dr. Kaufman's testimony, which summarizes the results of his analyses, does not consistently include the size-adjusted CAPM and ECAPM results; nor does Dr. Kaufman use my 7.3 percent equity risk premium anywhere in his ROE analysis.

A. Discounted Cash Flow Model

Q. Can you please summarize Dr. Kaufman's three-stage DCF approach?

A. Dr. Kaufman's three-stage DCF model adopts the analysts' growth projections of Value Line, IBES, and Zacks for the first five years, followed by a 25-year transition to a constant growth rate of 4.0 percent. Dr. Kaufman calculates expected annual cash flows under these assumed growth rates for a horizon of 200 years, and solves for the internal rate of return that equates this series of cash flows to the current stock price for each of the utilities in the proxy group.

[308] Kaufman, Exh.LDK-5 at 9-12.
[309] Kaufman, Exh.LDK-1T at 56:14-16.

Q. Dr. Kaufman asserts that his three-stage DCF model is "more reliable" than a constant growth DCF model.[310] Does he provide any support for this statement, as it relates to evaluating investors' expectations for utilities?

A. No. Dr. Kaufman's only "support" is a general observation that a three-stage DCF model "allows earnings growth to vary over time."[311] But as I discussed in detail earlier in response to Mr. Garrett, there is no basis to assume that investors are currently expecting a distinct transition in growth rates for utilities; much less the specific pattern adopted in Dr. Kaufman's three-stage DCF approach.

Q. Dr. Kaufman cites the treatise, *New Regulatory Finance*, by Roger A. Morin, in support of his chosen transition to long-term GDP growth.[312] Does Professor Morin also point out the pitfalls associated with assuming a transition to long-term growth in GDP?

A. Yes. In his most recent textbook on regulatory finance, Professor Morin presents a lengthy critique of multi-stage DCF approaches, such as that relied on by Dr. Kaufman.[313] His most recent treatise notes that, "I am not aware of any financial literature supporting the notion that that [sic] utility earnings per share are expected to grow at the average growth of the economy; or GDP."[314] Dr. Morin goes on to observe that:

> Multi-stage DCF applications appear somewhat disconnected from the assumptions of the method and the consensus expectations of investors. The investment community does not look to GDP growth over the next several decades when evaluating an investment in utility stocks, nor does it anticipate a series of discrete multi-stage decennial stages. I am not aware of any

[310] *Id.* at 30:21-22.
[311] *Id.* at 30:23
[312] *Id.* at 30:11-13.
[313] Roger A. Morin, *Modern Regulatory Finance*, PUR Books LLC (2021) at 486-488.
[314] *Id.* at 486.

evidence that investors evaluate the future based on the assumptions and data sources required to apply the two-stage or three-stage DCF model.[315]

Instead, Dr. Morin cites "the wealth of empirical and academic literature that supports the superiority of analysts' forecasts as measures of investor expectations" and concludes that "current earnings growth forecasts are the appropriate growth rates to use in a DCF analysis."[316] This is consistent with my testimony and refutes Dr. Kaufman's position on this issue.

Q. Dr. Kaufman suggests that "it is mathematically impossible for firms to grow faster than GDP indefinitely."[317] Does this theoretical proposition overcome your criticism of multi-stage DCF models?

A. No. Dr. Kaufman highlights an obvious fact that no company can grow forever at a rate greater than the economy. True enough, companies cannot grow forever, just as trees do not grow to the stratosphere. But this broad axiom does not justify the use of his three-stage DCF model. The objective of using the DCF model in an ROE analysis is to infer what investors must have required as a rate of return to part with their money to buy a common stock at the current market price. The theory of the DCF model is that investors calculate their expected return from a common stock investment as the discounted stream of cash flows they expect to receive by holding the stock, *i.e.*, the discounted value of dividends plus any capital gain (or loss) at the end of their holding period. By making certain strict assumptions, the DCF model can be reduced to the familiar constant growth formula, which represents the cost of equity as the sum of the dividend yield expected in the coming year and the growth

[315] *Id.*
[316] *Id.*
[317] Kaufman, Exh.LDK-1T at 29:23-30:1

rate expected during the foreseeable future.[318]

Just as companies do not grow forever, investors do not hold stocks forever and cannot see into the far distant future. In fact, investors realize that projections become increasingly tenuous as the forecast horizon expands. To estimate the growth rate investors must have had in mind when they agreed to purchase a common stock, we must look to information that investors use to make their decisions. The only relevant growth rate in applying the DCF model is what investors assumed when they purchased the stock at the prevailing market price.

To the extent that professional security analysts feel that trends in GDP affect a company's growth expectations in the time frame relevant to investors, it is already incorporated into their published EPS growth forecasts. In addition, companies differ in the degree to which growth is impacted by the national economy. Utilities vary in their exposure as some service territories are more sensitive to national economic conditions than others. These inherent differences are obviously reflected in security analysts' growth projections for individual companies, which are indicative of the expectations that underlie stock prices.

Moreover, the time necessary for any company to grow to the magnitude of the entire economy is so long that few if any investors would include this horizon in their decision to buy stock today. The present value of any cash flows so far in the future would also be so miniscule that it would not move the needle in stock valuation. For example, consider the 4.9 percent average Value Line EPS growth rate for the Utility Group, which has a total market capitalization of approximately $460 billion. In 2023 GDP was $27,360 billion.[319] Assuming

[318] The various assumptions behind the DCF model are presented at McKenzie, Exh. AMM-1T, footnote 38.
[319] https://www.bea.gov/news/2024/gross-domestic-product-fourth-quarter-and-year-2023-second-estimate (last visited Jul. 29, 2024).

Dr. Kaufman's GDP growth rate of 4.0 percent, the firms in the proxy group would not collectively overtake the value of the economy until the year 2499—over 475 years after the Value Line growth forecasts were published. The fact that such a time horizon is so far beyond the plausible consideration of investors' expectations provides another illustration of the wide gulf between the theoretical precepts underlying Dr. Kaufman's three-stage DCF analysis and practical application.

Q. Apart from the fact that the assumptions of Dr. Kaufman's multi-stage DCF model are arbitrary and unsupported, are there also computational inaccuracies that bias the cost of equity estimates downward?

A. Yes. Under his multi-stage DCF approach Dr. Kaufman predicted the cash flows that would accrue to investors over the next 200 years.[320] To arrive at his estimated cost of equity, Dr. Kaufman used the internal rate of return ("XIRR") function available in Microsoft's Excel spreadsheet program to determine the discount rate (*i.e.*, investors' required rate of return) that would equate these cash flows with the current market price of the stock. This XIRR calculation, however, assumes that annual cash flows are received at the end of each year, which is inconsistent with the periodic dividend payments that investors receive over the course of the year and results in a downward bias in the implied cost of equity.

Q. Does Dr. Kaufman's "constant growth" DCF model differ materially from his three-stage approach?

A. No. While Dr. Kaufman's constant growth DCF approach abandons the

[320] Kaufman-WP-Exh. LDK-5.xlsx at '3SDCF Vline' tab.

discreet pattern of growth underlying his three-stage model, as he notes it "is based on the same growth rate assumptions" used in his three-stage DCF application.[321] In other words, the average 30-year growth rate underlying his constant growth DCF study is based on the same misguided notion that investors expect growth for all utilities to converge to the CBO's forecast of GDP growth. The same criticisms discussed earlier in response to Dr. Kaufman's three-stage DCF model apply equally to his constant growth application.

B. Capital Asset Pricing Model

Q. How does Dr. Kaufman apply the CAPM and ECAPM models?

A. Dr. Kaufman utilizes two different MRP values—5.0 percent and 6.9 percent—along with a risk-free rate of 4.4 percent and his own calculated beta values to produce CAPM ROEs for each of the utilities in the proxy group. After adjusting for impact of firm size, Dr. Kaufman's average CAPM ROEs are 8.3 percent and 9.7 percent.[322] Dr. Kaufman also applies the ECAPM with these same inputs, which generates average ROEs of 8.7 percent and 10.2 percent after accounting for size.[323]

Q. What is the primary flaw within Dr. Kaufman's CAPM and ECAPM applications?

A. Instead of utilizing Value Line betas used in my testimony and accepted by Mr. Parcell and Mr. Garrett, Dr. Kaufman constructs his own betas. Contrary to Value Line's methodology, Dr. Kaufman calculates his own raw betas, and then adjusts them toward the "industry average," where the "industry" is defined as his proxy group.[324]

[321] Kaufman, Exh.LDK-1T at 31:13.
[322] Kaufman, Exh.LDK-5 at 9, 11.
[323] *Id.* at 10, 12.
[324] Kaufman, Exh.LDK-1T at 45:7-8, Kaufman-WP-Exh. LDK-5 at 'beta_estimates' tab.

Q. What is basis for Dr. Kaufman's decision to use his own betas in his CAPM calculations?

A. Dr. Kaufman laments that "Avista uses betas that are overly influenced by anomalous COVID stock market behavior and that have been adjusted closer to 1 using the Bloom [sic] adjustment."[325]

Q. Is there any merit to Dr. Kaufman's claim Value Line's current five-year beta values has "are biased and grossly misrepresent reasonable forecasts for utility stock betas"?[326]

A. No. Dr. Kaufman's subjective and unsupported arguments on this issue are incorrect and should be given no weight. The relative price behavior of utility stocks versus the broader market reflects the actual valuation decisions of investors and there is no reason to ignore the implications of this data in applying the CAPM. Value Line believes that weekly price movements over a five year lookback period is appropriate to capture investors' current evaluation of risk vis-à-vis the beta coefficient, and all of the weekly price changes over the five-year period referenced by Value Line are given equal weight in the regression analysis that is used to calculate published beta values. Value Line's five-year beta value calculations implicitly acknowledge that the capital market events of March 2020 are still recent enough that they should inform investors' current risk perceptions within the CAPM model, and there is no basis for Dr. Kaufman's contention that the use of these current five-year betas "overinflates utility cost of capital."[327]

[325] *Id.* at 32:10-11.
[326] *Id.* at 31:17-18.
[327] *Id.* at 41:17-18.

Similarly, the fact that the COVID-19 pandemic was not predicted or might not occur frequently is irrelevant in the context of the CAPM. Setting aside the very real possibility that investors might reasonably anticipate a recurrence of a similar health crisis, the relevance of Value Line's published beta values is not dependent on the assumption that risks affecting common stocks are predictable or commonplace. Rather, it is how investors incorporate information into their valuation decisions and ultimately, stock prices that determines risk in the context of modern capital market theory. Aswath Damodaran, a source cited by Dr. Kaufman in applying the CAPM,[328] noted that:

> When investing in equities, there is always the potential for catastrophic risk, i.e. events that occur infrequently but can cause dramatic drops in wealth. . . . While the possibility of catastrophic events may be low, they cannot be ruled out and the equity risk premium has to reflect this risk.[329]

Contrary to Dr. Kaufman's claim that price movements in response to the coronavirus pandemic somehow fall outside the paradigm of the CAPM or represent "outliers,"[330] they form the very foundation of this approach. The relative volatility of utility stock prices in response to the catastrophic events precipitated by a world health crisis directly reflect the actions of investors and there is no basis to ignore these price movements when estimating the forward-looking risk perceptions reflected in beta.

Dr. Kaufman's judgement that investors' recent actions looking back over five years can be ignored in favor of arbitrary time periods, selectively excluded data, or arbitrarily substituting monthly returns for the weekly returns used by Value Line is equally misguided.

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[328] *Id.* at 32, footnote 40; 50, footnote 59; 52:3-54:1.

[329] Aswath Damodaran, *Equity Risk Premiums (ERP): Determinants, Estimation and Implications—The 2020 Edition* (Updated: March 2020) at 16-17. https://papers.ssrn.com/sol3/Delivery.cfm/SSRN_ID3550293_code20838.pdf?abstractid=3550293&mirid=1.

[330] Kaufman, Exh.LDK-1T at 33:11; 36:7.

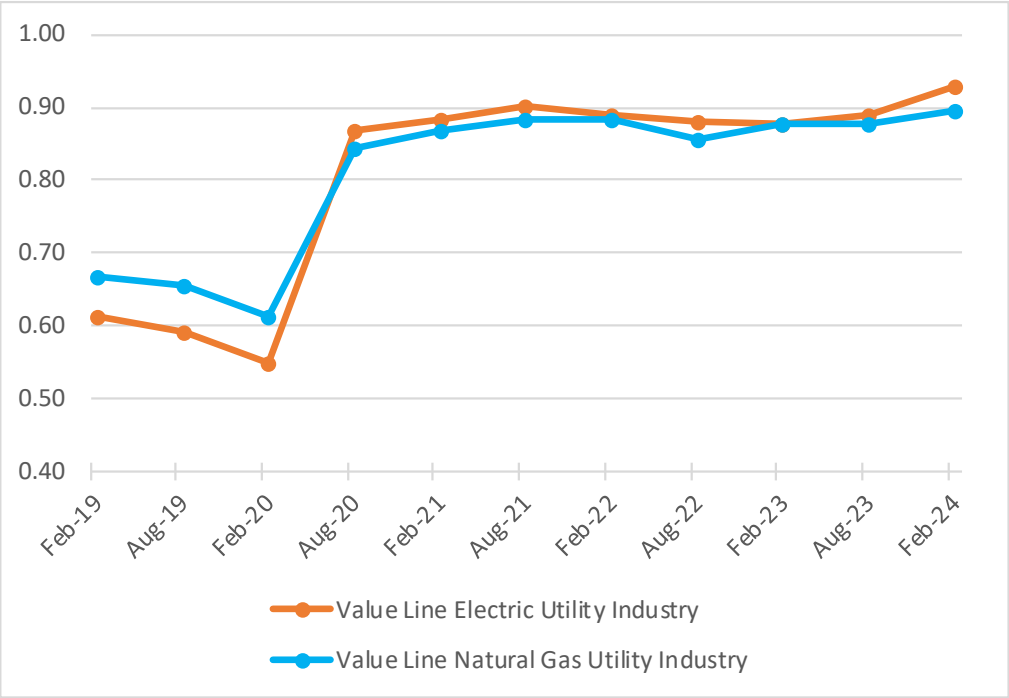
Ultimately, such suggestions devolve into highly subjective arguments regarding what period might be considered "atypical" and what might be more representative. The reality is that the "true," forward-looking beta is unobservable, and it is impossible to ascertain how investors will react to future information when valuing utility common stocks. That said, recent price movements leading to an increase in utility beta values reflect actual valuation decisions in the market and there is no reason to conclude that this information would not be considered by investors when forming their future expectations.

It Is also worth emphasizing that Value Line has made a purposeful decision to use five years of historical weekly stock returns to estimate beta. This choice confirms Value Line's belief that events within this window provide sound guidance as to investors' current risk perceptions. Certainly the impact of a significant event (*e.g.*, COVID-19) should not be ignored by relying on arbitrary beta values that are not publicly available to investors. To substitute Value Line's current beta values is to say that Dr. Kaufman knows better than Value Line what specific events influence investors' current risk perceptions.

Q. Is there any indication that beta values for electric and gas utilities have begun to decline to pre-pandemic levels since the onset of the COVID-19 pandemic?

A. No. In fact, electric and gas utility betas have remained elevated. The figure below illustrates the trajectory of the average beta for the firms in Value Line's electric utility and natural gas utility industry groups from February 2019 through February 2024:

FIGURE AMM-R7
ELECTRIC AND GAS UTILITY INDUSTRY BETAS



As shown above, the average beta value corresponding to these utility industry groups has remained elevated since March 2020. The fact that these average beta values for Value Line's electric and natural gas utility industry groups have remained elevated for four and a half years since March 2020 undermines Dr. Kaufman's unsupported assertion that current beta values are a skewed representation of investors' future expectations. Rising beta values are also consistent with higher structural risks, as evidenced by S&P's decision to place a "negative" outlook on the utility industry, citing declining credit ratings and ongoing potential for further downgrades.[331]

[331] S&P Global Ratings, *Rising Risks: Outlook For North American Investor-Owned Regulated Utilities Weakens*, Comments (Feb. 14, 2024).

Q. Do Dr. Kaufman's betas calculations confirm that the electric utilities in his proxy group are currently experiencing heightened risk, even after March 2020?

A. Yes. For example, Dr. Kaufman's various "Raw," "Adjust to Market" and "Adjust to Industry" beta calculations show average beta values for his proxy group in a range of approximately 0.70 to 0.80, after the exclusion of "Covid months" and "outliers."[332] While I do not support the use of his calculated betas in a CAPM analysis, Dr. Kaufman's analysis confirms that electric and gas utilities are still experiencing heightened risk, as compared to the five year period preceding the pandemic, when the average Blume-adjusted beta for the proxy group stood at approximately 0.57.[333]

Q. What does Dr. Kaufman's ultimate reliance on his own calculated betas in this case indicate regarding his subjective judgement about how investors perceive risk within the CAPM model?

A. As I have just discussed, Dr. Kaufman's own calculated betas demonstrate heightened risk as compared to pre-pandemic levels. Dr. Kaufman apparently feels that *some* recognition of higher risk is appropriate in the CAPM model, but that the level of risk that would be conveyed by five-year Value Line betas is "biased" and inappropriate according to his current judgement.

Q. Dr. Kaufman disagrees with Value Line's practice of adjusting betas towards the market average.[334] What is your response?

A. Dr. Kaufman makes a number of far-reaching and dubious conclusions in this

[332] Kaufman, Exh.LDK-5 at 6-8.
[333] The Value Line Investment Survey, *Summary & Index* (Feb. 14, 2020).
[334] Kaufman, Exh.LDK-1T at 36:9-42:8.

regard. For example, Dr. Kaufman argues that Value Line betas are "systematically higher than actual betas."[335] Given that the "actual" beta reflects investors' forward-looking expectations and cannot be observed, this statement is incorrect. Likewise, Dr. Kaufman concludes that unadjusted betas provide "a very reasonable approximation of near-term future beta,"[336] but again, near-term future betas are not measurable. In fact, Mr. Kaufman's examination of trends in his calculations of beta values for a small sample of utility stocks over a 10-year historical time period provide no meaningful information regarding investors' current expectations of the future price behavior of utility stocks relative to the market.

Dr. Kaufman suggests that a superior alternative to the Blume adjustment used by Value Line would be to adjust beta towards the industry average.[337] In fact, adjustment towards the industry average, which is generally referred to as the Vasicek method, is primarily designed to account for unreliability in individual beta estimates by increasing the adjustment in proportion to the standard error of the raw beta value. Adjusting raw beta values with high standard errors towards an industry average does not account for the observed tendency of beta to revert to the market average of 1.0. Meanwhile, the Blume adjustment used by Value Line is also used by other leading sources of beta values, such as Bloomberg. As one recognized researcher has noted:

> The most important difference of these services is the adjustment method used in the calculation of beta. Most services utilize the Blume methodology outlined earlier in this chapter.[338]

Value Line is recognized as being the most widely available source of investment

[335] *Id.* at 41:4.
[336] *Id.* at 40:12.
[337] *Id.* at 41:6-7.
[338] Ibbotson Associates, *2005 Yearbook, Valuation Edition* at 25.

information to investors, and citations in many textbooks and other sources support its usefulness as a guide to investors' expectations.is widely relied upon by investors. As noted in *New Regulatory Finance*:

> Value Line is the largest and most widely circulated independent investment advisory service, and influences the expectations of a large number of institutional and individual investors . . . Value Line betas are computed on a theoretically sound basis using a broadly based market index, and they are adjusted for the regression tendency of betas to converge to 1.00.[339]

In contrast to Dr. Kaufman's beta values, which are the product of his personal views, beta values reported by Value Line are relied on by investors in evaluating expected returns for utility common stocks. The administrative benefits associated with reliance on beta values from Value Line, including a consistent methodology by an independent third-party and immunity to selective changes in assumptions, support continued reference to Value Line betas in applying the CAPM approach.

Q. Do you agree with the MRPs Dr. Kaufman uses to apply the CAPM and ECAPM?

A. No. Dr. Kaufmann uses two MRPs—a 5.0 percent value sourced from Kroll and a 6.9 percent MRP that Dr. Kaufman calculated by modifying the forward-looking approach used in my direct testimony. I previously discussed the problems with the MRP from Kroll in my response to Mr. Garrett.

Q. How did Dr. Kaufman arrive at his 6.9 percent MRP?

A. As described in my direct testimony, the MRP used in my application of the CAPM was based on a forward-looking market return estimated by applying the DCF model

[339] Roger A. Morin, *New Regulatory Finance*, Pub. Utils. Reports, Inc. (2006) at 71.

to the dividend-paying firms in the S&P 500.[340] In arriving at the weighted average growth rate for the S&P 500, I eliminated growth rates that were negative or greater than 20 percent. Dr. Kaufman essentially replicates my market DCF approach, but instead of removing growth rates that were negative or greater than 20 percent, Dr. Kaufman argues to retain growth rates between -20 percent and 20 percent.

Q. Dr. Kaufman describes your elimination of negative growth rates and values above 20 percent as "biased" and "asymmetric."[341] How do you respond?

A. I disagree with Dr. Kaufman's assertion. My analysis adopts the same growth rate screening criteria specified by FERC to develop a forward-looking market risk premium for purposes of applying the CAPM. Based on proposals made by FERC's Trial Staff, FERC found that excluding negative growth rates or values above 20 percent "is consistent with the elimination of outliers elsewhere in our ROE methodology," and noted that, "Evidence indicates that the use of this growth rate screen is appropriate in the CAPM analysis."[342]

Q. Is there any basis for Dr. Kaufman's suggestion that a more reasonable screening criteria for growth rates would be "symmetric around zero"?[343]

A. No. Dr. Kaufman's suggestion that a growth rate of zero should be the starting point for an evaluation of plausible growth rates for the firms in the S&P 500 makes no sense. In the context of the DCF model, a negative growth rate implies a cost of equity below the

[340] McKenzie, Exh. AMM-3 at 17.

[341] Kaufman, Exh.LDK-1T at 46:17-47:1.

[342] *Ass'n of Bus. Advocating Tariff Equity v. Midcontinent Indep. Sys. Operator, Inc.*, Opinion No. 569, 169 FERC ¶ 61,129 (2019) at P 267-268, *vacated & remanded sub nom. MISO Transmission Owners v. FERC*, No. 16-1325 (D.C. Cir. 2022); *Ass'n of Bus. Advocating Tariff Equity v. Midcontinent Indep. Sys. Operator, Inc.*, Opinion No. 569-A, 171 FERC ¶ 61,154 (2020) at P 77, *vacated & remanded sub nom. MISO Transmission Owners v. FERC*, No. 16-1325 (D.C. Cir. 2022).

[343] Kaufman, Exh. LDK-1T at 46:20.

company's dividend yield, which is a nonsensical result and Dr. Kaufman's contention that including negative growth rates would correct for potential "bias" is incorrect.

Q. Given the illogical nature of Dr. Kaufman's proposal, what else could be done to address his concern that FERC's growth rate limits are "arbitrary"?

A. While the growth rate screens adopted by FERC offer an accepted basis on which to evaluate potentially illogical growth rates, a more defensible approach to address Dr. Kaufman's concerns over potential "bias" would be to remove the screens altogether. Underlying FERC's practice of excluding growth rates that are negative or greater than 20 percent is the misguided notion that use of the DCF model to estimate the market return implies an assumption that growth rates for each firm in the S&P 500 will be constant. This is not correct.

Contrary to Dr. Kaufman's contention,[344] applying the DCF model to the S&P 500 does not involve calculating the cost of equity for each individual firm under the assumption that the current growth rate will be constant for perpetuity. This same understanding was expressed in a widely-recognized financial research study, which noted that:

> Importantly, however, the approach is applied to portfolios of stocks rather than to individual securities, since future growth patterns may be expected to have drastic changes for some specific securities.[345]

In other words, while growth rates for individual companies can be expected to change over time (even dramatically), it is reasonable to expect that the weighted average of these individual projections is representative of investors' expectations for the entire portfolio of

[344] *Id.* at 49:4-9.

[345] Robert S. Harris, *Using Analysts' Growth Forecasts to Estimate Shareholder Required Rates of Return*, Fin. Mgmt. (Spring 1986).

dividend-paying firms in the S&P 500. In the CAPM, that index serves as a proxy for investors' current expectations regarding the required rate of return for the market in common stock as a whole.

The growth rate underlying the market cost of equity represents a weighted average of the expectations for the dividend paying firms in the S&P 500. Within this large group of firms, growth expectations for some firms may be extremely anemic, while projections for other firms are considerably more optimistic. In addition, growth rates for one company may moderate over time, while for others they may increase. Finally, the composition of the S&P 500 is not static. As a result, formerly successful firms are supplanted by new firms with potential for high growth (*e.g.*, Sears is supplanted by Amazon, or Blockbuster is supplanted by Netflix). On balance, however, the weighted growth rates of the individual firms in the S&P 500 are representative of the consensus expectations for the dividend paying firms in the S&P 500 Index as a whole.

Q. What market risk premium results when FERC's growth rate screens are removed?

A. Removing FERC's growth rate screens would result in an MRP of 9.7 percent, which is considerably higher than the 7.3 percent value that I adopted in my direct testimony.

Q. Dr. Kaufman cites to a number of investor and finance professional surveys.[346] Do the MRPs in these surveys provide useful guidance?

A. No. Dr. Kaufman says that, "Market surveys show that the average risk premium required by investors is materially lower than the forecast produced by Avista."[347]

[346] Kaufman, Exh.LDK-1T at 50:13, Table 17.
[347] *Id.* at 50:9-10.

But a closer look at the 12 survey-based MRPs presented by Dr. Kaufman shows that these surveys date back to February 2007, with the most recent one conducted in 2022.[348] There is nothing current about the surveys Dr. Kaufman cites, and the information contained within them cannot reasonably be used to impugn my forward-looking MRP estimate. As Dr. Kaufman says, "historic risk premiums are not forward looking."[349]

Q. Dr. Kaufman also cites to a number of "recent" equity risk premium estimates.[350] Do these equity risk premiums capture investors' current expectations?

A. No. The only forward-looking MRP estimates contained in Dr. Kaufman's exhibit are my own 7.3 percent MRP estimate and Dr. Kaufman's variation of my calculation.[351] The remaining risk premiums are a mish-mash of stale historic and survey-based results that do not capture the expectations of investors in today's capital markets. For example, the MRPs listed in Dr. Kaufman's Table 16 include results from surveys in 2018 and 2020 as well as historical estimates dating back to 1900 and 1928. References to historical, backward-looking inputs like the most of the MRPs in Dr. Kaufman's Table 16 and Table 17 are inconsistent with the forward-looking CAPM model. As I explain in my direct testimony, to produce a meaningful estimate of investors' required rate of return, the CAPM must be applied using estimates that reflect the expectations of actual investors in the market, not with backward-looking, historical data.[352]

[348] The average age of the surveys that Dr. Kaufman cites to is over ten years.
[349] Kaufman, Exh.LDK-1T at 52:4.
[350] *Id.* at 48:1, Table 16.
[351] Oddly, Dr. Kaufman reports that his "Corrected PAC Method" produces an MRP of 7.1 percent in his Table 16, but he uses 6.9 percent in his CAPM and ECAPM calculations.
[352] McKenzie, Exh. AMM-3 at 16.

Q. Compared to your 7.3 percent MRP value, Dr. Kaufman says that "Nearly all third-party estimates of the equity risk premium indicate it is between 3 and 6 percent."[353] Does this comparison indicate that your 7.3 percent estimate is inflated?

A. No. Earlier I discussed the fact that most of the values in Dr. Kaufman's Table 16 and Table 17 are stale, or otherwise tainted by historical back-ward looking data. But in any case, a range of 3.0 percent to 6.0 percent does not make economic sense. This can be illustrated by considering that the 4.5 percent midpoint of this range, when combined with Dr. Kaufman's 4.4 percent risk-free rate, would result in a cost of equity for the market as a whole of 8.9 percent. This implied cost of equity for the broader market is 35 basis points *below* the ROE that Dr. Kaufman is recommending for Avista, and 50 basis points *below* Avista's currently allowed ROE.

Q. Dr. Kaufman takes issue with your size premium. How do you respond?

A. I addressed criticisms of the size adjustment earlier in response to Mr. Parcell and Mr. Garrett. Additionally, I would note that Dr. Kaufman's suggestion that the size adjustment "is the same measure used to justify the ECAPM model" is incorrect.[354] The size adjustment is based on an ongoing demonstration that beta values do not fully reflect the impact of risks related to firm size. Meanwhile, the ECAPM does not involve any adjustment to beta or otherwise account for differences between predicted and actual returns that are related to size.

[353] Kaufman, Exh.LDK-1T at 46:13-14.
[354] *Id.* at 54:9-10.

C. Other ROE Issues

Q. Dr. Kaufman rejects your flotation cost adjustment. What is your response?

A. I addressed the necessity of allowing for recovery of flotation costs earlier in response to Mr. Parcell. Dr. Kaufman does not take issue with the reality that Avista incurred flotation costs in order to raise common equity capital; rather, he suggests that Avista could have reduced the amount of equity issuance costs by paying lower dividends. While Dr. Kaufman is correct that retaining earnings within the firm is one way to increase common equity, this simplistic argument ignores other important facets of a utility's financial policies. Relatively high and steadily growing dividend payments are a key feature of utility stocks that underly their attractiveness to investors, and Avista's dividend policies properly reflect these realities. In addition, Dr. Kaufman's suggestion that Avista could reduce flotation costs through share buybacks is nonsensical.[355] Share buybacks involve the Company's purchase of its own common stock in the market, which would divert financial resources that could otherwise be used to support Avista's utility operations.

Q. Dr. Kaufman recommends the Commission give no weight to your Risk Premium and Expected Earnings models.[356] How do you respond?

A. Dr. Kaufman claims that these two approaches are "not consistent with financial theory and are not grounded in market outcomes."[357] I address the financial and regulatory underpinnings of the expected earnings approach earlier.

[355] *Id.* at 56:7-11.
[356] *Id.* at 23:4-7.
[357] *Id.*

The Risk Premium approach is based on the fundamental risk-return principle that is central to finance. This method is routinely referenced by the investment community, by academics, and in regulatory proceedings, and provides an important tool in estimating a fair ROE. In the recognized treatise Principles of Public Utility Rates, Bonbright noted that "[t]he risk premium approach is probably the second most popular approach to estimating the cost of equity."[358] Similarly, the Risk Premium approach is cited as one of the preeminent cost of capital methodologies by the primary reference text prepared for the Society of Utility and Regulatory Financial Analysts,[359] as well as by *New Regulatory Finance*.[360] My application of the risk premium approach also considers "market outcomes," because objective market data is considered by regulators in evaluating the allowed ROEs on which my study was based.

V. RESPONSE TO WALMART WITNESS PERRY

Q. Does Ms. Perry conduct an independent evaluation of a fair ROE for Avista?

A. No. Ms. Perry does not conduct any analyses of the cost of equity. Her testimony is limited to a presentation of selected data concerning previously authorized ROEs, and she also presents various calculations concerning a hypothetical customer impact and revenue requirement. Based on this limited review, Ms. Perry expresses her concern about

[358] James C. Bonbright, Albert L. Danielsen, and David R. Kamerschen, *Principles of Public Utility Rates*, Pub. Utils. Reports, Inc. (1988) at 322.
[359] David C. Parcell, *The Cost of Capital – A Practitioner's Guide*, Society of Utility and Regulatory Financial Analysts (2010) at 164.
[360] Roger A. Morin, *New Regulatory Finance*, Pub. Utils. Reports, Inc. (2006) at 28, 107-130. FERC cited Professor Eugene Brigham, who also recognized that the Risk Premium method is typically used when estimating a company's cost of equity. *Ass'n of Bus. Advocating Tariff Equity v. Midcontinent Indep. Sys. Operator, Inc.*, Opinion No. 569, 169 FERC ¶ 61,129 (2019) at P 218, *vacated & remanded sub nom. MISO Transmission Owners v. FERC*, No. 16-1325 (D.C. Cir. 2022).

the reasonableness of the Company's proposed ROE.[361]

Q. Do you agree with Ms. Perry that allowed ROEs provide one benchmark worthy of consideration in the commission's evaluation?

A. Yes, I do. Importantly, however, such comparisons of allowed ROEs are only one consideration. While this data can be useful in the Commission's deliberations, it is not a substitute for the detailed analyses presented in my direct testimony. Moreover, as discussed earlier, historical average ROEs do not reflect current capital market conditions. In fact, once adjusted for the recent increase in interest rates, ROEs approved by the Commission since 2021 imply a current cost of equity of 10.43 percent.[362] Absent the adjustments quantified in my rebuttal testimony, these values do not provide a sound basis on which to assess a fair ROE for Avista in this case.

Q. From your position as an expert regulatory financial analyst, what do you make of Ms. Perry's admonition[363] to consider customer impacts when establishing a fair ROE?

A. First, it is important to note that the determination of the ROE is made by investors in the capital markets and is not predicated on any notion of costs or savings to customers. The Supreme Court's regulatory standards embodied in the *Hope* and *Bluefield* decisions represent a balance between the interests of customers and investors, by setting forth the guidelines as to a fair ROE. Meanwhile, Ms. Perry wrongly suggests that a lower ROE is *per se* to customers' benefit. This is not the case. While a downward-biased ROE may

[361] Perry, Exh. LVP-1T at 4-5.
[362] McKenzie, Exh. AMM-16..
[363] Perry, Exh. LVP-1T at 12, 16, 17-18.

provide the illusion of "savings" in the form of a lower revenue requirement in the short-term, the long-term impact of an inadequate ROE can work to the disadvantage of customers.

As discussed earlier, there is a very real connection between the ROE and the availability of capital, and Ms. Perry ignores the negative impact that an inadequate ROE would have on investment. The ROE is the primary signal to investors, not only with respect to attracting new capital investment, but also in supporting existing utility operations. If the utility is unable to offer a competitive ROE, existing shareholders will suffer a capital loss as investors take advantage of other, more favorable opportunities, and the utility's stock price would fall. Moreover, as investors' confidence is undermined, the ability of utilities to access equity capital markets and expand investment will suffer. While the Company would undoubtedly continue to meet its service obligations to customers, a downward-biased ROE would send an unmistakable signal to the investment community as they consider whether to commit capital in Washington, and at what cost.

Q. Does this conclude your rebuttal testimony?

A. Yes.