Exh. DCP-1T Dockets UE-240004, UG-240005, UE-230810 Witness: David C. Parcell

BEFORE THE WASHINGTON UTILITIES AND TRANSPORTATION COMMISSION

WASHINGTON UTILITIES AND TRANSPORTATION COMMISSION,

DOCKETS UE-240004, UG-240005, UE-230810 (Consolidated)

Complainant,

v.

PUGET SOUND ENERGY,

Respondent.

TESTIMONY OF

DAVID C. PARCELL

ON BEHALF OF THE STAFF OF WASHINGTON UTILITIES AND TRANSPORTATION COMMISSION

Cost of Capital

August 6, 2024

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| 1 | | I. INTRODUCTION |
|----|----|------------------------------------------------------------------------------------------|
| 2 | | |
| 3 | Q. | Please state your name and address. |
| 4 | A. | My name is David C. Parcell. My address is 2218 Worchester Rd., Midlothian, VA |
| 5 | | 23113. |
| 6 | | |
| 7 | Q. | By whom are you employed and in what capacity? |
| 8 | A. | I am a Principal and Senior Economist of Technical Associates, Inc. |
| 9 | | |
| 10 | Q. | Please state your qualifications to provide testimony in this proceeding |
| 11 | A. | I hold B.A. (1969) and M.A. (1970) degrees in economics from Virginia Polytechnic |
| 12 | | Institute and State University (Virginia Tech) and an M.B.A. (1985) from Virginia |
| 13 | | Commonwealth University. I have been a consulting economist with Technical |
| 14 | | Associates since 1970. I have provided cost of capital testimony in public utility |
| 15 | | ratemaking proceedings dating back to 1972, and I have previously filed testimony and/or |
| 16 | | testified in over 625 utility proceedings before more than 50 regulatory agencies in the |
| 17 | | United States and Canada. |
| 18 | | |
| 19 | Q. | Have you testified previously before the Commission? |
| 20 | A. | Yes. I have previously filed testimony and testified on behalf of the Staff of the |
| 21 | | Washington Utilities and Transportation Commission (Commission) in several |
| 22 | | proceedings involving Avista Utilities, Cascade Natural Gas, and Pacific Power & Light |

| 1 | | Company, as well as Puget Sound Energy ("PSE"). Exh. DCP-2 provides a more |
|----|----|-------------------------------------------------------------------------------------------|
| 2 | | complete description of my education and relevant work experience. |
| 3 | | |
| 4 | Q. | What is the purpose of your testimony in this proceeding? |
| 5 | A. | I have been retained by the Commission Staff to evaluate the cost of capital ("COC") |
| 6 | | aspects of the current electric utility and natural gas distribution Multi-year Rate Plan |
| 7 | | ("MYRP") filings of PSE. I have performed independent studies and I am making |
| 8 | | recommendations of the current and prospective COCs for PSE. In my testimony, I |
| 9 | | derive COCs for the two periods (i.e., December 31, 2025, and December 31, 2026) of |
| 10 | | the Company's MYRP. In addition, since PSE is a wholly owned subsidiary of Puget |
| 11 | | Energy, Inc. ("PH"), I have also evaluated this entity in my analyses. |
| 12 | | |
| 13 | Q. | Have you prepared an exhibit in support of your testimony? |
| 14 | A. | Yes. In addition to Exh. DCP-2, identified above, I have prepared Exh. DCP-3 through |
| 15 | | Exh. DCP-15, which provide much of the technical support for my analyses and related |
| 16 | | conclusions and recommendations. These exhibits were prepared by me. The |
| 17 | | information contained in these exhibits is correct to the best of my knowledge and belief |
| 18 | | In addition, Exh. DCP-16 and Exh. DCP-17 are Responses to Staff Data Requests in this |
| 19 | | case. |
| 20 | | |

3 Q. What are your COC recommendations in this proceeding?

- 4 A. My overall COC recommendations for PSE are shown in Exh. DCP-3 and are
- 5 summarized as follows:

| 6 | Item | Percent | Cost | Weighted Cost ¹ | |
|----|--------------------------------------|---------|-------|----------------------------|--|
| 7 | December 31, 2025 Short-Term Debt | 2.04% | 5.07% | 0.12% | |
| | Long-Term Debt | 49.46% | 5.27% | 2.63% | |
| 8 | Common Equity | 48.50% | 9.50% | 4.61% | |
| | Total | 100.00% | | | |
| 9 | | | | 7.36% | |
| 10 | <u>December 31, 2026</u> | | | | |
| 10 | Short-Term Debt | 1.18% | 4.08% | 0.06% | |
| | Long-Term Debt | 50.32% | 5.36% | 2.71% | |
| 11 | Common Equity | 48.50% | 9.50% | 4.61% | |
| | Total | 100.00% | • | _ | |
| 12 | | | | 7.37% | |

13 Q. How do your proposed COCs compare with the MYRP COCs proposed by PSE?

14 A. PSEs requested COCs for each year of its proposed MYRP are as follows:²

| 15 | Item | Percent | Cost | Weighted Cost |
|----|--------------------------|---------|--------|---------------|
| | December 31, 2025 | | | |
| 16 | Short-Term Debt | 1.81% | 5.07% | 0.11% |
| | Long-Term Debt | 48.19% | 5.27% | 2.56% |
| 17 | Common Equity | 50.00% | 9.95% | 4.98% |
| | Total | 100.0% | | |
| 18 | | | | 7.65% |
| 10 | <u>December 31, 2026</u> | | | |
| | Short-Term Debt | 1.19% | 4.08% | 0.06% |
| 19 | Long-Term Debt | 47.81% | 5.36% | 2.57% |
| | Common Equity | 51.00% | 10.50% | 5.36% |
| 20 | Total | 100.0% | | |
| | | | | 7.99% |

.

 $^{^1}$ Weighted costs include: cost rate plus 0.01% Commitment Fees and 0.01% Amortization of Short-Term Debt Issue Cost for short-term debt and 0.02% Amortization of Reacquired Debt for long-term debt for 2025; and 0.01% Commitment Fees for short-term debt and 0.01% Amortization of Reacquired Debt for 2026. .

² Peterman, Exh. CGP-6C and 7C.

| Q. | Please summarize the major differences between your COC recommendations and |
|----|-----------------------------------------------------------------------------|
| | those of PSE. |

The first major difference between my COC analyses and those of PSE is the appropriate capital structure to be used in calculating the COC for each year of the MYRP. PSE proposes use of a set of capital structures that incorporate 50.0 percent common equity in 2025 and 51.0 percent equity in 2026.³ These differ from the capital structures that were approved in the most recent litigated proceedings of PSE, where the Commission adopted a capital structure with 48.5 percent common equity and 51.5 percent debt.⁴ I use the 48.5 percent common equity ratio from the previously-adopted capital structures, which remains the proper capital structure for the Company. I also develop a capital structure for each year of the MYRP, with each year's capital structure containing 48.5 percent common equity.

The second major difference between my COC analyses and those of PSE lies in our respective recommendations on the return on equity ("ROE") for PSE. I recommend a 9.50 percent ROE for both years of the MYRP and PSE requests a 9.95 percent ROE for 2025 and 10.50 percent for 2026.⁵ I consider four recognized methodologies to estimate PSE's ROE, each of which I apply to a proxy group of electric and combination electric/gas utilities. These four methodologies and my findings are:

| 19 | Methodology | Range |
|----|--------------------------------------|--------------------------------|
| 20 | Discounted Cash Flow ("DCF") | 9.0%-10.0% (9.5% mid-point) |
| 20 | Capital Asset Pricing Model ("CAPM") | 10.7%-10.8% (10.75% mid-point) |
| 21 | Comparable Earnings ("CE") | 9.0%-9.5% (9.25% mid-point) |
| 21 | Risk Premium ("RP") | 9.4%-10.8% (10.1% mid-point) |

³ Peterman, Exh. CGP-1CT at 10, Table 3 and at 11, Table 4.

A.

⁴ Wash. Utils. Transp. Comm'n v. Puget Sound Energy, Docket UE-190529, Final Order 08/05/03, 29 ¶ 81 (July 8, 2020).

⁵ Peterman, Exh. CGP-1CT at 9: 1-13.

Based upon these findings, I conclude that PSE's ROE is within a range of 9.5 percent to 10.0 percent. This range is supported collectively by the results of all the methodologies except CAPM, which is currently an outlier due to Federal Reserve monetary policy to contain the rate of inflation, which has raised the yields on US Treasury bonds (*i.e.*, the risk-free rate component in the CAPM formula) and thus artificially inflates the CAPM results. I further conclude that a reasonable ROE for PSE is 9.5 percent, the low end of the ROE range, in order to recognize the risk-reducing attributes of the MYRP in SB 5295, as well as the Commission's long-standing principle of gradualism. I recommend the same 9.5 percent ROE for both PSE's electric operations and its natural gas distribution operations, as well as for both years of the proposed MYRP.

III. ECONOMIC/LEGAL PRINCIPLES AND METHODOLOGIES

- Q. What are the primary economic and legal principles that establish the standards for determining a fair rate of return for a regulated utility?
- A. Public utility rates are normally established in a manner designed to allow the recovery of their costs, including capital costs. This is frequently referred to as "cost of service" ratemaking. Rates for regulated public utilities traditionally have been primarily established using the "rate base, rate of return" concept. Under this method, utilities are allowed to recover a level of operating expenses, taxes, and depreciation deemed reasonable for rate-setting purposes, and are granted an opportunity to earn a fair rate of return on the assets utilized (*i.e.*, rate base) in providing service to their customers.

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

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

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

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

Although I am not a lawyer and I do not offer a legal opinion, my testimony is based on my understanding that two United States Supreme Court decisions provide the controlling standards for a fair rate of return. The first decision is *Bluefield Water Works* and *Improvement Co. v. Public Serv. Comm'n of West Virginia*, 262 U.S. 679 (1923). In this decision, the Court stated:

1 The annual rate that will constitute just compensation depends upon many 2 circumstances and must be determined by the exercise of fair and 3 enlightened judgment, having regard to all relevant facts. A public utility 4 is entitled to such rates as will permit it to earn a return on the value of the 5 property which it employs for the convenience of the public equal to that 6 generally being made at the same time and in the same general part of the 7 country on investments in other business undertakings which are attended 8 by corresponding risks and uncertainties; but it has no constitutional right 9 to profits such as are realized or anticipated in highly profitable enterprises 10 or speculative ventures. The return should be reasonably sufficient to assure confidence in the financial soundness of the utility, and should be 11 12 adequate, under efficient and economical management, to maintain and 13 support its credit and enable it to raise the money necessary for the proper 14 discharge of its public duties. A rate of return may be reasonable at one time and become too high or too low by changes affecting opportunities 15 16 for investment, the money market, and business conditions generally. 17 It is generally understood that the *Bluefield* decision established the following 18 standards for a fair rate of return: comparable earnings, financial integrity, and capital 19 attraction. It also noted that required returns change over time, and there is an underlying 20 assumption that the utility be operated efficiently. 21 The second decision is Federal Power Comm'n v. Hope Natural Gas Co., 320 22 U.S. 591 (1942). In that decision, the Court stated: 23 The rate-making process under the [Natural Gas] Act, i.e., the fixing of 'just and reasonable' rates, involves a balancing of the investor and 24 25 consumer interests . . . From the investor or company point of view it is 26 important that there be enough revenue not only for operating expenses 27 but also for the capital costs of the business. These include service on the 28 debt and dividends on the stock. By this standard the return to the equity 29 owner should be commensurate with returns on investments in other 30 enterprises having corresponding risks. That return, moreover, should be 31 sufficient to assure confidence in the financial integrity of the enterprise, 32 so as to maintain its credit and to attract capital. 33 The three economic and financial parameters in the *Bluefield* and *Hope* decisions - comparable earnings, financial integrity, and capital attraction - reflect the economic 34 criteria encompassed in the "opportunity cost" principle of economics. The opportunity 35

cost principle provides that a utility and its investors should be afforded an opportunity

| 1 | | (not a guarantee) to earn a return commensurate with returns they could expect to achieve |
|----------|----|------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 2 | | on investments of similar risk. The opportunity cost principle is consistent with the |
| 3 | | fundamental premise on which regulation rests, namely, that it is intended to act as a |
| 4 | | surrogate for competition. |
| 5 | | |
| 6 | Q. | How can the Bluefield and Hope parameters be employed to estimate the COC for a |
| 7 | | utility? |
| 8 | A. | Neither the courts nor economic/financial theory has developed exact and mechanical |
| 9 | | procedures for precisely determining the COC. This is the case because the COC is an |
| 10 | | opportunity cost and is prospective looking, which dictates that it must be estimated. |
| 11 | | However, there are several useful models that can be employed to assist in estimating the |
| 12 | | ROE, which is the capital structure item that is the most difficult to determine. These |
| 13 | | include the DCF, CAPM, CE and RP methods. Each of these methodologies will be |
| 14 | | described in more detail later in my testimony. |
| 15 | | |
| 16 | | IV. GENERAL ECONOMIC CONDITIONS |
| 17 | | |
| 18 | Q. | Are economic and financial conditions important in determining the COC for a |
| 19 | | public utility? |
| 20 | A. | Yes. The COCs for both fixed-cost (e.g., debt) components and common equity are |
| 21 | | determined in part by current and prospective economic and financial conditions. At any |
| 22 | | given time, each of the following factors has an influence on the COC: |
| 23 24 | | The level of economic activity (growth rate of the economy); The stage of the business cycle (recession, expansion, or transition); |

| 1 2 3 | | The level and trend of inflation; The level and trend of interest rates; and Current and expected economic conditions. |
|--------|----|--------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 4 5 | | This position is consistent with the Bluefield decision, which noted "[a] rate of |
| 6 | | return may be reasonable at one time and become too high or too low by changes affecting |
| 7 | | opportunities for investment, the money market, and business conditions generally."6 |
| 8 | | |
| 9 | Q. | What indicators of economic and financial activity did you evaluate in your |
| 10 | | analyses? |
| 11 | A. | I examined several sets of economic and financial statistics from 1975 to the present. I |
| 12 | | chose this time period because it permits the evaluation of economic conditions over five |
| 13 | | full business cycles, allowing for an assessment of changes in long-term trends. |
| 14 | | Consideration of economic/financial conditions over a relatively long period of time |
| 15 | | permits an assessment of how such conditions have impacted the level and trends of the |
| 16 | | COC. This period also approximates the beginning and continuation of active rate case |
| 17 | | activities by public utilities that generally began in the mid-1970s. |
| 18 | | A business cycle is commonly defined as a complete period of expansion |
| 19 | | (recovery and growth) and contraction (recession). A full business cycle is a useful and |
| 20 | | convenient period over which to measure levels and trends in long-term capital costs |
| 21 | | because it incorporates the cyclical (i.e., stage of current business cycle), as well as cycle- |
| 22 | | to-cycle characteristics and, thus, permits an evaluation of structural (or long-term) |
| 23 | | trends. |
| 24 | | |

⁶ Bluefield, 262 U.S. at 693.

- Q. Please describe the time frames of the five prior business cycles and the beginning of
 the current cycle.
- 3 A. The five prior complete cycles and current cycle cover the following periods:

| 4 | Business Cycle | Expansion Period | Contraction Period |
|---|----------------|-------------------------|---------------------|
| | 1975-1982 | Mar. 1975-July 1981 | Aug. 1981-Oct. 1982 |
| 5 | 1982-1991 | Nov. 1982-July 1990 | Aug. 1990-Mar. 1991 |
| | 1991-2001 | Mar. 1991-Mar. 2001 | Apr. 2001-Nov. 2001 |
| 6 | 2001-2009 | Nov. 2001-Nov. 2007 | Dec. 2007-June 2009 |
| | 2009-2020 | July 2009-Feb. 2020 | Mar. 2020-Apr. 2020 |
| 7 | Current | May 2020 - | |

8 Source: The National Bureau of Economic Research, "U.S. Business Cycle Expansions and Contractions."⁷

9

- 10 Q. Please describe how you have examined recent and current economic and financial conditions and their impact on the COC.
- 12 A. Exh. DCP-4 shows several sets of relevant economic and financial statistics for the cited 13 time periods. Page 1 contains general macroeconomic statistics, page 2 shows interest 14 rates, and page 3 contains equity market statistics.

15

16

- Q. Do you have any general observations concerning the recent trends in economic conditions and their impact on capital costs over this broad period?
- 18 A. Yes, I do. From the early 1980s until the end of 2007, the U.S. economy enjoyed general 19 prosperity and stability. This period was characterized by longer economic expansions, 20 relatively tame contractions, low and declining inflation, and declining interest rates and 21 other capital costs.

⁷ Available at: http://www.nber.org/cycles/cyclesmain.html.

| | | | Real | | A-Rated | |
|--------------------|--------|--------|--------|------------------|------------|--|
| | No. of | Months | GDP | | Utilities | |
| Cycle ⁸ | Exp. | Rec. | Growth | CPI ⁹ | Bond Yield | |
| 1975-1982 | 77 | 15 | 2.1% | 8.3% | 11.62% | |
| 1983-1991 | 93 | 8 | 3.2% | 3.9% | 11.04% | |
| 1992-2001 | 121 | 8 | 3.6% | 2.5% | 7.85% | |
| 2002-2009 | 73 | 19 | 1.7% | 2.6% | 6.31% | |
| 2010-2020 | 127 | 2 | 1.9% | 1.7% | 4.22% | |

This indicates that the most recent business cycle, while having a longer-thannormal expansion period, experienced a lower average annual growth rate of Gross

Domestic Product ("GDP") in comparison to the prior cycles. This cycle also
experienced the shortest recession period. In addition, both the rate of inflation and
yields on utility bonds declined significantly over the most recent three business cycles.

This is further indicative of a declining cost of equity capital, as is reflected in declining
authorized ROEs for regulated electric and natural gas utilities:

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⁸ Annual periods corresponding to the respective business cycle periods.

⁹ Consumer Price Index ("CPI")

| 1 | | Authorized Returns on Equity ¹⁰ | | | |
|----|------|--------------------------------------------|--------|-------------|--------|
| | | Electric | | Natural Gas | |
| 2 | Year | Average | Median | Average | Median |
| | 2007 | 10.32% | 10.23% | 10.22% | 10.20% |
| 3 | 2008 | 10.37% | 10.30% | 10.39% | 10.45% |
| | 2009 | 10.52% | 10.50% | 10.22% | 10.26% |
| 4 | 2010 | 10.29% | 10.26% | 10.15% | 10.10% |
| | 2011 | 10.19% | 10.14% | 9.91% | 10.05% |
| 5 | 2012 | 10.02% | 10.00% | 9.93% | 10.00% |
| | 2013 | 9.82% | 9.82% | 9.68% | 9.72% |
| 6 | 2014 | 9.76% | 9.75% | 9.78% | 9.78% |
| | 2015 | 9.60% | 9.53% | 9.60% | 9.68% |
| 7 | 2016 | 9.60% | 9.60% | 9.53% | 9.50% |
| | 2017 | 9.68% | 9.60% | 9.73% | 9.60% |
| 8 | 2018 | 9.56% | 9.58% | 9.59% | 9.60% |
| | 2019 | 9.65% | 9.65% | 9.73% | 9.73% |
| 9 | 2020 | 9.39% | 9.48% | 9.47% | 9.44% |
| | 2021 | 9.39% | 9.50% | 9.56% | 9.60% |
| 10 | 2022 | 9.58% | 9.53% | 9.53% | 9.60% |
| | 2023 | 9.66% | 9.60% | 9.60% | 9.55% |
| 11 | | | | | |

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

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

¹⁰ See S&P Global, Market Intelligence: "Major Energy Rate Case Decisions in US." Data for electric and natural gas general rate cases.

Reserve") and other governmental actions to stimulate the economy. These actions included the Federal Reserve's maintenance of the "Fed Funds Rate" at a near-zero level and the purchase of longer-term U.S. Treasury securities 11 in an effort to stimulate the economy by increasing the money supply and lowering interest rates on federal debt.

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

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Page 13

¹¹ A process known as Quantitative Easing ("QE"). The Federal Reserve implemented three QDE programs following the financial crisis of 2007-2008 (QE 1 through QE 3) and one additional time (QE 4) during the COVID-19 pandemic/recession. *See. e.g.*, https://americandeposits.com.

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

| A. | It is evident that the "driving force" of economic and financial developments over the |
|----|------------------------------------------------------------------------------------------------|
| | past three years has been the rate of inflation. As noted previously, the rate of inflation |
| | (e.g., Consumer Price Index ("CPI")) had been relatively low by recent historic standards |
| | since the Great Recession and COVID-19 pandemic occurred. Between early 2021 and |
| | the middle of 2022, on the other hand, the inflation rate increased. Initially, it was |
| | generally believed that the increase in the inflation rate was related to the impacts of |
| | COVID-19 (e.g., "transition" and "supply chain" effects resulting from the economic |
| | effects of the COVID-19 pandemic), and the ongoing impact of the Russia-Ukraine |
| | conflict. 12 It appears that policymakers (e.g., Federal Reserve) initially believed the |
| | initial increase in inflation in 2021 was "transitory" and chose not to react to inflation but |
| | instead left existing monetary policy and fiscal stimulus in place to guard against the |
| | economic recovery becoming derailed by the ongoing threat of the pandemic. 13 As |
| | inflation became more widespread in 2021 and 2022, however, the Federal Reserve |
| | reversed this position and turned its attention to containing the rate of inflation. |
| | Beginning in 2022, the Federal Reserve increased the Fed Funds rate several times in an |
| | apparently successful effort to combat the rate of inflation. This had a somewhat |
| | significant impact on short-term interest rates and also impacted longer-term interest |
| | rates, as is shown on page 2 of Exhibit DCP-4. |

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

The rate of inflation peaked in mid-2022 (*e.g.*, the "year to year" CPI reached 9.1 percent in June of 2022). Since that time, the CPI has declined to a level of about 3 percent. ¹⁴ It is noteworthy that "consensus" forecasts of inflation as of mid-2022 were about 2.6 percent, indicating an expectation at that time that the 9 percent inflation would not prevail. ¹⁵ I also note that the more recent "consensus" forecasts of inflation are about 2.2 percent. ¹⁶

A.

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

Interest rates increased over the two-year period 2022-2023, largely as a result of the Federal Reserve's previously mentioned efforts to reign in the increase in the inflation rate. Beginning of 2022, the Federal Reserve increased the Fed Funds rate several times in an aggressive effort to tame the rate of inflation. The result of this was a somewhat significant increase in short-term interest rates, as shown on page 2 of Exh. DCP-4. Long-term interest rates have also increased, although not to the same extent as the increase in short-term rates.

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

¹⁴ See "Economic Indicators," Council of Economic Advisors, U.S. Government Printing Office., June 2022 and June 2024.

¹⁵ See Blue Chip Financial Forecasts, June 1, 2022.

¹⁶ See Blue Chip Financial Forecasts, April 1, 2024.

| 1 | | Reserve's increases in the Fed Funds rate is over. 17 The Federal Reserve has not |
|----|----|-----------------------------------------------------------------------------------------------|
| 2 | | increased the Fed Funds rate since mid-2023. |
| 3 | | |
| 4 | Q. | Do current capital market conditions reflect the impact of recent increases in the |
| 5 | | rate of inflation and certain interest rates? |
| 6 | A. | Yes, they do. Security markets (stock market prices) reflect the collective impact of |
| 7 | | investors' perceptions of all relevant information. 18 As a result, any perceived impacts of |
| 8 | | inflation and interest rates are already incorporated in stock and other security prices and, |
| 9 | | as a result, an analysis of the current COC (using market-based methodologies such as |
| 10 | | DCF, RP, and my version of CE) incorporates these factors. |
| 11 | | |
| 12 | | V. PUGET SOUND ENERGY'S OPERATIONS AND RISKS |
| 13 | | |
| 14 | Q. | Please summarize PSE and its operations. |
| 15 | A. | PSE is a regulated combination electric and natural gas utility that generates, transmits |
| 16 | | and distributes electricity to about 1.23 million customers and natural gas to 877,000 |
| 17 | | customers in the Puget Sound region of Western Washington. 19 |
| 18 | | |
| 19 | Q. | Please describe PSE's ownership structure. |
| 20 | A. | PSE is a subsidiary of Puget Energy, Inc. ("Puget Holdings" or "PH"), which was formed |
| 21 | | in 1997 by the merger of Puget Sound Power and Light Company and Washington |
| | | |
| | | |

TESTIMONY OF DAVID C. PARCELL DOCKETS UE-240004, UG-240005, UE-230810 Exh. DCP-1T Page 16

¹⁷ The Federal Reserve has indicated that its monetary policies will not result in any additional increases in interest rates and that some reductions may occur in 2024.

18 This is known as the Efficient Market Hypothesis ("EMH").

19 See, Puget Energy and Puget Sound Energy, 2023 Form 10-K, page 7.

| 1 | | Energy Company (parent of Washington Natural Gas Co.). PH existed as a publicly | | |
|----|----|---------------------------------------------------------------------------------------------------|--|--|
| 2 | | traded entity until 2009, when it was acquired by a group of private investors ²⁰ in a | | |
| 3 | | leveraged private equity buyout. PH is now a Washington-based holding company | | |
| 4 | | whose operations are conducted through PSE. | | |
| 5 | | | | |
| 6 | Q. | What are the current security ratings of PSE? | | |
| 7 | A. | The present debt ratings of PSE's debt are shown on Exh. DCP-5 and are as follows: | | |
| 8 | | Secured Corp./Issuer | | |
| 9 | | Moody's A2 Baa1 Standard & Poor's A- BBB | | |
| 10 | | | | |
| 11 | Q. | What have been the trends in PSE's bond ratings? | | |
| 12 | A. | This is also shown on Exh. DCP-5. As this indicates, PSE's current ratings by Moody's | | |
| 13 | | and Standard & Poor's have remained the same throughout the period 2016 to the | | |
| 14 | | present. | | |
| 15 | | | | |
| 16 | Q. | How do the bond ratings of PSE compare to other electric and combination | | |
| 17 | | gas/electric utilities? | | |
| 18 | A. | PSE's ratings are generally similar to most electric utilities in the U.S. This is evidenced | | |
| 19 | | by the relative Moody's and Standard & Poor's debt ratings, as shown on my Exh. DCP- | | |
| 20 | | 8 and which indicates that PSE's ratings are generally similar to those of the group of | | |
| 21 | | proxy electric utilities used to develop the ROE recommendations in my testimony. | | |

²⁰ Puget Holdings is currently owned by the following entities: Alberta Investment Management Corporation, British Columbia Investment Management Corp., Ontario Municipal Employee Retirement System, Macquarie Washington Clen Energy Investment, Ontario Teachers' Retirement System, and PGGM Vermongonsbeheer.

| 1 | | PSE's ratings are also generally similar to the ratings of the proxy group selected by |
|----|----|------------------------------------------------------------------------------------------|
| 2 | | Company witness Bulkley (also shown on Exh. DCP-8). |
| 3 | | |
| 4 | Q. | Please briefly describe the "recent legislation in Washington" and explain how this |
| 5 | | impacts the risks and costs of capital for PSE and other Washington utilities. |
| 6 | A. | In May of 2021, the Washington legislature passed SB 5295, ²¹ which: |
| 7 | | • Requires a gas or electric company (utilities) to pursue MYRPs that set rates and |
| 8 | | align cost recovery for several years at a time; |
| 9 | | • Allows the Commission to set performance measures to assess a utility under the |
| 10 | | MYRP; |
| 11 | | • Allows utilities to expand bill assistance programs and to invest in programs that |
| 12 | | achieve energy conservation and improve the energy efficiency of single-family |
| 13 | | and multifamily rental housing; and, |
| 14 | | • Allows utilities to provide financial assistance to organizations who represent |
| 15 | | highly impacted communities and vulnerable populations in regulatory |
| 16 | | proceedings. |
| 17 | | This legislation provides the impetus for the two-year MYRP that forms the basis |
| 18 | | for PSE's current applications. This is the second MYRP submitted by PSE; the first was |
| 19 | | submitted and approved by the Commission in 2022 for the rate years 2023 and 2024. |
| 20 | | SB 5295 is largely beneficial to Washington utilities, including PSE, as it |
| 21 | | provides a more stable regulatory and financial environment. In this regard, Moody's |
| 22 | | stated, after the passage of the legislation but before the implementation of any MYRPs: |

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²¹ The full title of SB 5295 is as follows: "An act relating for transforming the regulation of gas and electrical companies toward multiyear rate plans and performance-based rate making." Codified as RCW 80.28.425.

1 On 3 May 2021, Washington State Governor Jay Inslee signed into law a 2 senate bill (SB 5295) aimed at reforming the regulatory framework for 3 utilities in the state by paving the way for multi-year rate plans (MYRP) 4 and performance based ratemaking (PBR). The bill could enhance the 5 consistency and predictability of utility regulation and provides credit 6 positive opportunities for Washington's utilities, including <u>Puget Energy</u> 7 Inc's (Puget, Baa3, stable) primary subsidiary Puget Sound Energy, Inc. 8 (PSE, Baa1, stable) and Avista Corp. (Avista, Baa2, stable), to reduce 9 regulatory lag and earn returns closer to their authorized returns on equity 10 (ROE). However, improved regulatory and financial outcomes for these 11 utilities remain subject to the bill's implementation by the Washington 12 Utilities and Transportation Commission (WUTC), the state's utility 13 regulator. 14 15 The bill requires the WUTC to develop, in collaboration with utilities and 16 other interested stakeholders, a policy statement on alternatives to 17 traditional cost of service rate making, including performance measures, 18

incentives, and penalty mechanisms. The WUTC must provide an update to the relevant legislative committees by 1 January 2022.

Importantly, beginning 1 January 2022, utilities are required to include a proposal for a MYRP between two and four years in length in every general rate case filing. The bill allows for property that is deemed used and useful as of the rate effective date of the first year of a MYRP to be included in the rate base, with the remainder of the rate plan based on forecasted information. This would be a material improvement over the historical test year currently used by utilities in rate cases and help reduce regulatory lag, a credit positive. The terms approved by the WUTC for the first two years of a MYRP are binding, but utilities must update power costs at the beginning of the third year and may file a new multi-year rate plan for the third and fourth rate year, if applicable. In addition, if a utility earns a rate of return 50 basis points higher than authorized, excess revenues must be deferred for customer refund or other uses as determined by the WUTC in a subsequent proceeding.

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This new law follows Washington's Clean Energy Transformation Act (CETA), signed into law in May 2019, that requires utilities to eliminate coal-fired electricity by 2025 and commits to a carbon free electricity supply by 2045. While the CETA also clarified the WUTC's authority to consider and implement various constructive regulatory mechanisms including MYRPs and PBR regulation, SB 5295 provides more enforceable guidance. We view the PBR construct as credit positive because MYRPs with performance targets and the potential to earn performance incentives will not only work to reduce regulatory lag, but

| 1 2 3 4 5 | | also aid PSE's and Avista's renewable transition, improve operational efficiency and enhance cash flow and profitability, all while considering customer cost and service. ²² It is apparent from these statements that Moody's considers the recent regulatory |
|-------------------------------------------------------------------------------|----|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 6 | | mechanisms to be credit supportive, and therefore risk reducing for Washington electric |
| | | |
| 7 | | and natural gas utilities. |
| 8 | | |
| 9 | Q. | Have Moody's and S&P commented specifically on PSE's expected impact from SB |
| 10 | | 5295? |
| 11 | A. | Yes. Moody's also stated the following in a report on PSE in 2021 (i.e., before the |
| 12 | | implementation of its first MYRP): |
| 13 14 15 16 17 18 19 220 221 222 23 24 25 | | The more recently passed SB 5295 (enacted on 3 May 2021) followed the clean energy bill and aims at reforming the regulatory framework for utilities in the state by paving the way for multiyear rate plans (MYRP) and performance based ratemaking (PBR). We view the bill as credit positive as it could enhance the consistency and predictability of utility regulation. Specifically, we view the PBR construct as a credit supportive rate making mechanism because MYRPs with performance targets and the potential to earn performance incentives will work to reduce regulatory lag. It could also aid PSE's renewable transition, improve operational efficiency and enhance cash flow and profitability, all while considering customer cost and service. ²³ |
| 25 26 27 28 29 30 | | Moody's also noted: Puget Sound Energy, Inc.'s (PSE) credit profile reflects its low risk regulated utility operations with a number of credit supportive cost recovery mechanisms authorized by its primary regulator, the Washington Utilities and Transportation Commission (WUTC). ²⁴ |
| 37 | | |

Moody's Investors Service, Issuer Comment, (May 10, 2021), ("Puget Sound Energy Inc. and Avista Corp. Legislation supporting multi-year rate plans has positive credit implications for Washington's investor-owned utilities.") Wash. Util. Transp. Comm'n v. Puget Sound Energy, Dockets UE-220066/UG-220067, Exh. DCP-16.
 Moody's Investors Service, Credit Opinion, (August 26, 2021), ("Puget Sound Energy, Inc., Update to credit analysis.") Exh. CGP-10 at 35-45 in Dockets UE-220066/UG-220067.

| 1 | | |
|----------------------|----|------------------------------------------------------------------------------------------------------------------------------------------|
| 2 | | S&P issued similar analyses and statements in 2021: |
| 3 | | |
| 4 | | Rating Action Rationale |
| 5 | | Washington's SB 5295 includes the mandatory filing of an MYRP |
| 6 | | that we view as credit supportive. We expect Puget will file its first |
| 7 | | MYRP in January 2022, with new rates effective the following year. |
| 8 9 | | Under the new legislation, utilities must file an MYRP between two and four years long. We expect the commission will approve the MYRPs, |
| 10 | | reducing regulatory lag and cash flow volatility. Furthermore, power costs |
| | | are trued-up after the second year, improving cash flow predictability. We |
| 12 | | believe Washington's new law, predicated on the commission |
| 11 12 13 14 | | implementing it in a credit supportive way, could improve the regulatory |
| 14 | | environment. ²⁵ |
| 15 | | |
| 16 | Q. | Have the rating agencies more recently commented on SB 5295 and its MYRP |
| 17 | | provisions? |
| 18 | A. | Yes. Since the implementation of the provisions of SB 5295, including MYRPs, the |
| | | |
| 19 | | rating agencies have commented further on the risk-reducing aspects of these and other |
| 20 | | favorable mechanisms available to PSE. S&P stated the following in a recent report or |
| 21 | | PSE: |
| 22 | | Subsidiary Puget Sound Energy's multi-year rate outcome reduces |
| 23 | | regulatory risk for parent Puget Energy, Inc. In December 2022, Puget |
| 24 25 | | Sound Energy was authorized to increase its electricity rates by \$223 |
| 25 | | million in 2023 and \$38 million in 2024 and its gas rates by \$70.8 million |
| 26 | | in 2023 and \$18.8 million in 2024. The forward-looking rate increase |
| 27 | | reflects forecasted rate base estimates through 2024, which we view |
| 28 | | favorably from a credit standpoint because of the ability to reduce |
| 29 | | regulatory lag. The outcome also provides predictability for the company, |
| 30 31 | | both reducing its regulatory risk. |
| 32 | | Business Risk |
| 32 33 | | We base our assessment of Puget Sound Energy's business risk on its |
| 34 | | regulatory utility operations that provide essential services to its local |
| 35 | | economies in Washington. Given the material barriers to entry, Puget |
| 36 | | Sound Energy and the regulated utility industry as a whole are insulated |

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²⁵ S&P Global Ratings, "RatingsDirect, Research Update, Puget Energy Inc. And Subsidiary Outlooks Revised To Stable Following New Rate Plan Legislation; Rating Affirmed," (May 27, 2021). *Puget Sound Energy*, Dockets UE-220066/UG-220067, Exh. CGP-10 at 30-34.

| 2 | | utilities' very low industry risk compared with other industries. |
|--------------------------------------------------------------|----|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 2 3 4 5 6 7 8 9 10 11 11 12 | | Our assessment of Puget Sound Energy's business risk is supported by generally constructive regulation in Washington under the WUTC that is based on a multiyear ratemaking framework. In addition to reducing regulatory lag and cash flow volatility, we believe multiyear ratemaking promotes predictability and lowers uncertainty for the utility and its stakeholders. Our assessment of the company's business risk also incorporates its large customer base of about 1.2 million electricity customers and 900,000 natural gas customers that are mostly residential, and revenue decoupling mechanisms for its electricity and natural ga utilities. Overall, we believe the regulatory environment under the WUTC |
| 14 15 16 | | has historically been challenging, but we expect Puget Sound Energy will continue managing regulatory risk in line with its peers. ²⁶ |
| 17 | | It is correspondingly clear that S&P continues to regard SB 5295 as risk-reducing to PSE. |
| 18 | | |
| 19 | Q. | What is the significance of this legislation and other mechanisms as they impact PSE |
| | | |
| 20 | | and its ROE in this proceeding? |
| 20 21 | A. | and its ROE in this proceeding? It is apparent that SB 5295, as well as several other favorable regulatory mechanisms (as |
| | A. | |
| 21 | A. | It is apparent that SB 5295, as well as several other favorable regulatory mechanisms (as |
| 21 22 | A. | It is apparent that SB 5295, as well as several other favorable regulatory mechanisms (as cited by Moody's and S&P) the Company has access to, provides favorable risk-reducing |
| 21 22 23 | A. | It is apparent that SB 5295, as well as several other favorable regulatory mechanisms (as cited by Moody's and S&P) the Company has access to, provides favorable risk-reducing attributes to PSE. The impact of these mechanisms, on both an individual and collective |
| 21 22 23 24 | A. | It is apparent that SB 5295, as well as several other favorable regulatory mechanisms (as cited by Moody's and S&P) the Company has access to, provides favorable risk-reducing attributes to PSE. The impact of these mechanisms, on both an individual and collective basis, is to transfer a significant portion of PSE's risks from its shareholders to its |
| 221 222 23 224 225 226 | A. | It is apparent that SB 5295, as well as several other favorable regulatory mechanisms (as cited by Moody's and S&P) the Company has access to, provides favorable risk-reducing attributes to PSE. The impact of these mechanisms, on both an individual and collective basis, is to transfer a significant portion of PSE's risks from its shareholders to its ratepayers. This risk transfer is not voluntary from the ratepayer perspective. I |
| 21 22 23 24 25 | A. | It is apparent that SB 5295, as well as several other favorable regulatory mechanisms (as cited by Moody's and S&P) the Company has access to, provides favorable risk-reducing attributes to PSE. The impact of these mechanisms, on both an individual and collective basis, is to transfer a significant portion of PSE's risks from its shareholders to its ratepayers. This risk transfer is not voluntary from the ratepayer perspective. I correspondingly believe that ratepayers should receive some benefit for their acceptance |
| 221 222 223 224 225 226 227 | A. | It is apparent that SB 5295, as well as several other favorable regulatory mechanisms (as cited by Moody's and S&P) the Company has access to, provides favorable risk-reducing attributes to PSE. The impact of these mechanisms, on both an individual and collective basis, is to transfer a significant portion of PSE's risks from its shareholders to its ratepayers. This risk transfer is not voluntary from the ratepayer perspective. I correspondingly believe that ratepayers should receive some benefit for their acceptance |

²⁶ Exh. DCP-16 at 1-2, 4.

| $\mathbf{\Omega}$ | II J | 41-4 DCE24 | . l 4 . J C | . 41-1 |
|-------------------|--------------------|-----------------------|----------------------|----------------------|
| U. | now do you propose | that PSE's ratepayers | s de combensateu for | tinis risk transier: |

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

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

I recommend that the ROE established in this proceeding be set at a level that is no higher than the bottom of the market-determined ROE for the proxy group, as established by the various cost of equity models employed in this proceeding, which is 9.5 percent.²⁷ The Commission recognizing the impact of SB 5295 would be consistent with the reduced risk PSE is now exposed to in conjunction with the MYRP legislation's elimination of regulatory lag, as well as the PBR ratemaking mechanisms. This is also consistent with the Commission's preference for the concept of gradualism, as cited in a later portion of my testimony.

²⁷ I note that in the initial MYRP proceeding of PSE (*i.e.*, Dockets UE-220066, *et al.*) I recommended that PSE's ROE in its proposed MYRP be set at a level no greater than the mid-point of the market-determined ROE for the proxy group. At that time the MYRP process had not been implemented in Washington. Now that the MYRP has been implemented and further recognized as risk reducing, it is proper to recommend a lower portion of the ROE range.

VI. CAPITAL STRUCTURES AND COSTS OF DEBT

| _ | |
|----|--|
| ′) | |
| / | |
| _ | |

A.

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

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

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

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

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

- 2 A. I have examined the historic (2019-2023) capital structure ratios of PSE and PH, which
- are shown on Exh. DCP-6. The respective common equity ratios have been:

| 4 | PSE Regulated U | | ited Utility ²⁸ | PSE Consolidated | | PH | |
|---|-----------------|-----------|----------------------------|------------------|-----------|-----------|-----------|
| • | | Including | Excluding | Including | Excluding | Including | Excluding |
| 5 | | S-T Debt | S-T Debt | S-T Debt | S-T Debt | S-T Debt | S-T Debt |
| 3 | 2019 | 47.7% | 49.7% | 47.3% | 48.3% | 37.9% | 38.6% |
| 6 | 2020 | 48.8% | 49.8% | 47.0% | 49.1% | 37.9% | 39.2% |
| 6 | 2021 | 49.0% | 50.0% | 46.9% | 47.7% | 40.2% | 40.7% |
| | 2022 | 48.7% | 49.2% | 48.6% | 50.4% | 41.1% | 42.7% |
| 7 | 2023 | 49.3% | 49.6% | 47.8% | 49.3% | 39.4% | 41.3% |

This indicates that PSE and PH have had equity ratios that have generally been stable over the past five years. In addition, it is apparent that the equity ratios of PSE (on a consolidated basis) are slightly lower than PSE (on a "regulated utility" basis). Finally, it is apparent that the equity ratios of PH (consolidated) are significantly lower than those of PSE.

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

utilities?

16 A. Exh. DCP-7 shows the common equity ratios (excluding short-term debt in capitalization)
17 for the group of proxy electric utilities used in developing my cost of equity models and

18 related conclusions. These are:

| 19 | | Period | Average | Median |
|----|-------------|-----------|---------|--------|
| 20 | Proxy Group | 2019-2023 | 52.0% | 50.8% |
| 20 | | 2027-2029 | 51.8% | 50.0% |

²⁸ The "regulated utility" capital structure of PSE excludes investments in non-utility operations.

- 1 The equity ratios for the proxy group are slightly higher than those of PSE (excluding short-2 term debt).
- 3
- 4 Q. What have been the average common equity ratios adopted by U.S. state regulatory
- 5 commissions in recent years?
- 6 Over the past several years, the average common equity ratios cited in U.S. state A.
- regulatory electric proceedings have been:²⁹ 7

| | 8 |
|---|---|
| | 9 |
| 1 | 0 |

| 8 | | Electric |
|----|------|----------|
| 0 | 2015 | 49.23% |
| 9 | 2016 | 48.91% |
| 10 | 2017 | 48.90% |
| 10 | 2018 | 49.02% |
| 11 | 2019 | 49.94% |
| 11 | 2020 | 49.67% |
| 10 | 2021 | 50.06% |
| 12 | 2022 | 50.36% |
| 10 | 2023 | 51.15% |

14 The utility ratios are slightly higher than those of PSE's common equity ratios. It 15 is noteworthy, on the other hand, that these equity ratios reflect a combination of approved capital structures, some of which include short-term debt and some of which 16 17 exclude short-term debt.

18

- 19 What capital structure has PSE requested in the proceedings? Q.
- 20 A. PSE proposes a set of capital structures comprised as follows:

| | Dec. 31, 2025 | Dec. 31, 2026 |
|---------------|---------------|---------------|
| S-T Debt | 1.81% | 1.19% |
| L-T Debt | 48.19% | 47.81% |
| Common Equity | 50.00% | 51.00% |

²⁹ S&P Global, Market Intelligence, "Major Energy Rate Case Decisions in US."

| 1 | | Two relevant points are apparent from these requested capital structure ratios. First, each |
|----|----|------------------------------------------------------------------------------------------------------|
| 2 | | of the proposed equity ratios exceed the authorized 48.5 percent equity ratio for PSE. ³⁰ |
| 3 | | Second, PSE proposes to increase the regulatory equity ratio in each year during the |
| 4 | | MYRP. |
| 5 | | |
| 6 | Q. | What reasons does PSE give to rationalize its request for higher equity ratios than |
| 7 | | those approved by the Commission in recent years? |
| 8 | A. | Two of PSE's witnesses discuss the requested capital structures in their respective |
| 9 | | testimonies. First, Company witness Peterman, whose testimony describes PSE's |
| 10 | | proposed capital structures, ³¹ does not appear to directly explain why the Company is |
| 11 | | requesting an increase in its equity ratios over the two years of the MYRP. In addition, |
| 12 | | Company witness Doyle cites PSE's request to increase its common equity ratio. ³² |
| 13 | | However, Company witness Doyle does not provide any compelling reasons for |
| 14 | | requesting an increase in its common equity ratio levels in the 2025 and 2026 calendar |
| 15 | | years, which is only described as a combination of the following factors: ³³ |
| 16 | | Maintain its current credit ratings; |
| 17 | | Maintain competitive access to the capital markets; and |
| 18 | | • Restore pre-tax reform cash flow over time. |
| | | |

³⁰ *I.e.*, in the most recent litigated rate proceedings of PSE, as described elsewhere. ³¹ Peterman, Exh. CGP-1CT at 7:11-22. ³² Doyle, Exh. DAD-1CT at 43-45.

³³ *Id.* at 45:1-4.

| 1 | | It also appears that PSE is requesting an increase in its regulatory common equity |
|----|----|----------------------------------------------------------------------------------------------|
| 2 | | ratios in order for it to be able to maintain an actual equity ratio of 50 percent in Year |
| 3 | | One and 51 percent in Year Two of its proposed MYRP. ³⁴ |
| 4 | | |
| 5 | Q. | Do you concur with Company witness Doyle that these factors justify an increase in |
| 6 | | PSE's regulatory common equity ratio? |
| 7 | A. | No, I do not. I note, first, that PSE did not request an increase in its equity ratio in its |
| 8 | | pre- SB 5295 rate proceedings. ³⁵ These proceedings did not include the recently |
| 9 | | authorized regulatory mechanisms of MYRPs and PBR. As a result, the "regulatory |
| 10 | | environment" should be viewed as more favorable at the present time – a conclusion also |
| 11 | | reached by Moody's and S&P, as noted above. The improvement in the perceived |
| 12 | | regulatory environment should imply that, if any changes in the required equity ratio |
| 13 | | were required, it would be in a downward direction, as opposed to the upward direction |
| 14 | | proposed by PSE. |
| 15 | | In addition, there is no requirement that the Commission should be obligated to |
| 16 | | maintain a utility's capital structure at some specific level. Actual capital structures are |
| 17 | | determined not just by earnings levels but also by retention of earnings, which are |
| 18 | | impacted by dividend policy which is largely determined by a utility's Board of |
| 19 | | Directors. In addition, a PSE can also raise its equity ratio via capital infusions by its |
| 20 | | parent if it deems a higher equity ratio to be beneficial to its investors and ratepayers. |

³⁴ *Id.* at 43:16-18.

³⁵ Wash. Util. Transp. Comm. v. Puget Sound Energy, Dockets UE-190529 & UG-190530, Parcell, Exh. DCP-1T, at 39:1-23 (22 Nov. 2019). Wash. Utils. Transp. Comm'n v. Puget Sound Energy, Docket UE-190529, Final Order 08/05/03, 29 ¶ 81 (July 8, 2020).

1 Q. What capital structure do you propose to use in these proceedings? 2 I have also used two sets of capital structures, but with a 48.5 percent common equity A. rate. My proposed capital structures are derived in Exh. DCP-3 and are as follows:³⁶ 3 4 December 31 2025 2026 5 Short-Term Debt 2.04% 1.18% Long-Term Debt 50.32% 49.46% 6 Common Equity 48.50% 48.50% 7 8 Why are you proposing capital structures for PSE containing 48.5 percent common Q. 9 equity? I first note that PSE's actual consolidated capital structure³⁷ as of December 31, 2023, 10 A. 11 contained 47.8 percent common equity, as shown on Exh. DCP-6 page 2. In addition, 12 PSE's 2023 "regulatory" equity ratio was 49.3 percent and PH's equity ratio was 39.4 percent. Thus, my proposed capital structure is similar to the recent actual consolidated 13 14 capital structure ratios of PSE and higher than the equity ratio of PH. 15 Second, Exh. DCP-6 shows that the actual equity ratios of PSE have not increased 16 materially in recent years.

Third, the common equity ratio in these capital structures matches the capital structure adopted by the Commission in PSE's prior litigated rate proceeding.³⁸

³⁶ See Exh. DCP-3 for development of each year's capital structure ratios.

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³⁷ The consolidated capital structure is the proper method with which to determine PSE's financial structure. For example, rating agencies assess PSE on a consolidated basis, rather than on a "non actual" regulatory capital structure basis.

³⁸ Wash. Utils. Transp. Comm'n v. Puget Sound Energy, Docket UE-190529, Final Order 08/05/03, 29 ¶ 81 (July 8, 2020).

1 Q. What is the Commission's recent policy on the proper capital structure to use to 2 determine the COC?

3 The Commission's policy on determining a capital structure balances safety (the A. 4 preservation of investment quality credit ratings and access to capital) against economy 5 (the lowest overall cost to attract and maintain capital). The Commission noted that the 6 appropriate capital structure can either be the Company's historical capital structure, the projected capital structure, or a hypothetical capital structure.³⁹

8

7

9 0. Is your recommended capital structure consistent with this policy?

10 A. Yes. The capital structure that I use is similar to recent actual ratios of PSE, as well as its 11 2023 capital structure, and is consistent with the capital structure of other electric and 12 combination electric utilities. I also believe that the capital structure that I propose provides a "balance of safety and economy" as cited above. 13

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

PSE proposes the following costs of debt as of December 31, 2025, and 2026:⁴⁰ 16 A.

| 17 | | December 31 | | |
|----|-----------------|-------------|-------|--|
| | | 2025 | 2026 | |
| 18 | Short-Term Debt | 5.07% | 4.08% | |
| | Long-Term Debt | 5.27% | 5.36% | |

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I use those rates in my COC calculations.⁴¹

³⁹ Id. at 39, ¶ 109, see also, Wash. Utils. & Transp. Comm'n v. Puget Sound Energy, Inc., Dockets UE-040640 & UG-040641, Order 06, 13, ¶ 27 (Feb. 18, 2005).

⁴⁰ Peterman, Exh. CGP-1CT at 10, Table 3 and 11, Table 4.

⁴¹ These cost rates are calculated in a manner consistent with debt cost rates in past general rate proceedings of PSE. See Exh. DCP-17.

| 1 | Q. | Can the ROE be determined with the same degree of precision as the costs of debt? |
|----|----|------------------------------------------------------------------------------------------------|
| 2 | A. | No. The cost rates of debt are largely determined by interest payments, issue prices, and |
| 3 | | related expenses. The ROE, on the other hand, cannot be precisely quantified, primarily |
| 4 | | because this cost is an opportunity cost. As mentioned previously, there are several |
| 5 | | models that can be employed to estimate the ROE. Four of the primary methods – DCF, |
| 6 | | CAPM, CE, and RP – are developed in the following sections of my testimony. |
| 7 | | |
| 8 | | VII. SELECTION OF PROXY GROUP |
| 9 | | |
| 10 | Q. | How have you estimated the ROE for PSE? |
| 11 | A. | PSE is not a publicly traded company. Consequently, it is not possible to directly apply |
| 12 | | ROE models to PSE. However, in COC analyses, it is customary to analyze a group of |
| 13 | | comparison, or "proxy," companies as a substitute for PSE to determine its ROE. |
| 14 | | I have accordingly selected a group of investor-owned electric and combination |
| 15 | | electric/natural gas utilities for comparison to PSE. I selected this group using the criteria |
| 16 | | listed in Exh. DCP-8. These criteria are as follows: |
| 17 | | (1) Market cap of \$1 billion to \$10 billion; |
| 18 | | (2) Common equity ratio 40% or greater; |
| 19 | | (3) Value Line Safety rank of 1, 2 or 3; |
| 20 | | (4) S&P and Moody's bond ratings investment grade (Triple B or higher); |
| 21 | | (5) Currently pays dividends and has not reduced dividends in past five years; and |
| 22 | | (6) Not involved in major merger or acquisition. |

| 1 | | I do not apply my ROE analyses to all of the proxy group companies proposed by |
|----|----|---------------------------------------------------------------------------------------|
| 2 | | PSE Witness Bulkley. Exh. DCP-8 describes the reasons for the proxy companies of |
| 3 | | Company witness Bulkley that I do not agree are appropriate indicators of the ROE for |
| 4 | | PSE. |
| 5 | | |
| 6 | | VIII. DCF ANALYSIS |
| 7 | | |
| 8 | Q. | What is the theory and methodological basis of the DCF model? |
| 9 | A. | The DCF model is one of the oldest and most commonly used models for estimating the |
| 10 | | ROE for public utilities. |
| 11 | | The DCF model is based on the "dividend discount model" of financial theory, |
| 12 | | which maintains that the value (price) of any security or commodity is the discounted |
| 13 | | present value of all future cash flows. |
| 14 | | The most common variant of the DCF model assumes that dividends are expected |
| 15 | | to grow at a constant rate (the "constant growth" or "Gordon DCF model"). In this |
| 16 | | framework, the ROE is derived from the following formula: |
| | | V = D |
| 17 | | $K = \frac{S}{P} + g$ |
| 18 | | where: P = current price |
| 19 | | D = current dividend rate |
| 20 | | K = discount rate (cost of capital) |
| 21 | | g = constant rate of expected growth |
| | | |

| 1 | | This formula essentially recognizes that the return expected or required by investors is |
|----|----|---------------------------------------------------------------------------------------------------|
| 2 | | comprised of two factors: the dividend yield (current income) and expected growth in |
| 3 | | dividends (future income). |
| 4 | | |
| 5 | Q. | Please explain how you employ the DCF model. |
| 6 | A. | I use the constant growth DCF model. In doing so, I combine the current dividend yield |
| 7 | | for each of the proxy utility stocks described in the previous section with several |
| 8 | | indicators of expected dividend growth. |
| 9 | | |
| 10 | Q. | How did you derive the dividend yield component of the DCF equation? |
| 11 | A. | Several methods can be used to calculate the dividend yield component. These methods |
| 12 | | generally differ in the manner in which the dividend rate is employed (i.e., current versus |
| 13 | | future dividends or annual versus quarterly compounding variant). I used a quarterly |
| 14 | | version of the dividend yield, which is expressed as follows: |
| 15 | | $Yield = \frac{D_0(1 + 0.5g)}{P_0}$ |
| 16 | | This dividend yield component recognizes the timing of dividend payments and dividend |
| 17 | | increases. |
| 18 | | The P ₀ in my yield calculation is the average of the high and low stock price for |
| 19 | | each proxy company for the most recent three-month period (April – June 2024). The D ₀ |

is the current annualized dividend rate for each proxy company.

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| 1 | Q. | How do you estimate the dividend growth component of the DCF equation? | | | | | |
|----------------------|----|----------------------------------------------------------------------------------------------------------------------------------------------------------------|--|--|--|--|--|
| 2 | A. | The DCF model's dividend growth rate component is usually the most crucial and | | | | | |
| 3 | | controversial element involved in using this methodology. The objective of estimating | | | | | |
| 4 | | the dividend growth component is to reflect the growth expected by investors that is | | | | | |
| 5 | | embodied in the price (and yield) of a company's stock. As such, it is important to | | | | | |
| 6 | | recognize that individual investors have different expectations and consider alternative | | | | | |
| 7 | | indicators in deriving their expectations. This is evidenced by the fact that every | | | | | |
| 8 | | investment decision resulting in the purchase of a particular stock at a specific price is | | | | | |
| 9 | | matched by another investment decision to sell that stock at the same price. | | | | | |
| 10 | | A wide array of indicators exists for estimating investors' growth expectations. | | | | | |
| 11 | | As a result, it is evident that investors do not always use one single indicator of growth. | | | | | |
| 12 | | It therefore is necessary to consider alternative dividend growth indicators in deriving the | | | | | |
| 13 | | growth component of the DCF model. I have considered five indicators of growth in my | | | | | |
| 14 | | DCF analyses. These are: | | | | | |
| 15 16 17 | | 1. Years 2019-2023 (5-year average) earnings retention, or fundamental growth (per Value Line); | | | | | |
| 18 19 20 21 | | 2. Five-year average of historic growth in earnings per share (EPS), dividends per share (DPS), and book value per share (BVPS) (per Value Line); | | | | | |
| 22 23 24 | | 3. Years 2024, 2025 and 2027-2029 projections of earnings retention growth (per Value Line); | | | | | |
| 25 26 27 | | 4. Years 2021-2023 to 2027-2029 projections of EPS, DPS, and BVPS (per Value Line); and | | | | | |
| 28 29 30 | | 5. Five-year projections of EPS growth (per Value Line, First Call and Zacks, as reported in Value Line and Yahoo! Finance and Zack's websites, respectively). | | | | | |
| 31 | | | | | | | |

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

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Q. Please describe your DCF calculations.

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

| 1.4 | | | | Mean | Mean | Median | Median |
|-----|-------------|------|--------|-------------------|--------------------|-------------------|--------------------|
| 14 | | Mean | Median | Low ⁴² | High ⁴³ | Low ⁴⁴ | High ⁴⁵ |
| | Proxy Group | 8.6% | 8.6% | 7.8% | 9.8% | 7.9% | 10.6% |

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

⁴² Using only the lowest average growth rate.

⁴³ Using only the highest average growth rate.

⁴⁴ Using the lowest median growth rate.

⁴⁵ Using only the highest median growth rate.

| Q. | What do you | conclude from | your DCF | analyses? |
|----|-------------|---------------|----------|-----------|
|----|-------------|---------------|----------|-----------|

A. The DCF rates resulting from the analysis of the proxy group fall into a wide range between 7.8 percent and 10.6 percent. The mean/median DCF rates are 8.6 percent and most of the individual growth rate DCF results are within a range of 8.6 percent to 9.8 percent. The highest DCF rates, on both a mean and median basis, are 9.8 percent to 10.6 percent. I note that only one of the potential DCF ROE results is above 9.8 percent, leaving the 10.6 percent high median DCF ROE result as an outlier.

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

Q. Does PSE witness Bulkley also perform DCF analyses?

A. Yes. Company witness Bulkley cites DCF results within a broad range of 8.81 percent to 11.24 percent.⁴⁷

Page 36

⁴⁶ In my Prefiled Direct Testimony (Exh. DCP-1T) in the most recent PSE MYRP case (Dockets UE-220066/UG-220067), I recommended the high end results of the DCF range, reflecting "... my recognition that these results are relatively lower than historic DCF results." In that testimony, I noted that the DCF high end results range was 8.7 percent to 8.8 percent (page 34). At the current time, DCF results do not produce ROE results that are lower than has been the case in recent years. As a result, I am now recommending the midpoint of the DCF range, as well as the higher portion of the overall DCF results.

⁴⁷ Bulkley, Exh. AEB-1T at 41, Table 3.

| Quality of the state of the sta | Wh | Vhat are you | ır disagreement | s with Compan | y witness Bulkle | y's DCF | analyse |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----|--------------|-----------------|---------------|------------------|---------|---------|
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----|--------------|-----------------|---------------|------------------|---------|---------|

A. Company witness Bulkley's constant growth DCF analyses are based on 30-day, 90-day, and 180-day average stock prices for the periods ending November 30, 2023, and annualized dividends per share as of November 30, 2023. The DCF analyses are applied to a proxy group of twenty-two electric utility holding companies.

Company witness Bulkley's constant growth DCF analyses are shown on Exh.

AEB-5. It is apparent from a review of this exhibit that the "Low DCF ROE" for each proxy company reflects the dividend yield and the lowest of the three growth rates. The "Mean DCF ROE" considers the average of all three growth rates and the "High DCF ROE" only considers the highest growth rate for each company. Stated differently, the "High DCF" result considers only the highest of the three growth rates for each individual company and ignores the other two growth rates for that company. Thus, for example, the "Mean High DCF" result for one proxy company may reflect only the Zacks EPS Growth, while the "Mean High DCF" result for another proxy company may reflect only the Value Line growth result.

Q. Is it appropriate to focus on the highest growth rate, on a company-to-company basis, to determine the cost of equity for a utility such as PSE?

A. No. Even though Company witness Bulkley purports to use three sets of growth rates in the DCF analyses, in reality it is only using one growth rate – the expected growth rate in EPS. The three sets of growth rates are actually three separate sets of "consensus" estimates of EPS growth. I note that, when Company witness Bulkley performs DCF

⁴⁸ Bulkley, Exh. AEB-1T at 37:14-16.

| analyses using all three sets of EPS growth estimates, the DCF results (mean and median) |
|------------------------------------------------------------------------------------------------|
| are in a range of 9.76 percent to 10.16 percent ⁴⁹ which is generally within my DCF |
| conclusions of 9.0 percent to 10.0 percent. It is only by selecting the highest of the EPS |
| projections for each proxy company from the range of such projections that Company |
| witness Bulkley derives DCF results above 10.0 percent. |
| |

Focusing only on the highest growth rate projections on a company-by-company basis implicitly assumes that investors rely exclusively on the "rosiest" estimate of EPS growth in making investment decisions. This is an unlikely assumption of investor behavior. In fact, a case could be made that a "prudent" or conservative investment strategy would be to place more reliance on the lower or lowest value of "consensus" EPS estimates.

IX. CAPM ANALYSIS

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

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

19

20

Q. How is the CAPM derived?

21 A. The general form of the CAPM is:

⁴⁹ *Id.* at 41, Table 3.

| 1 | | $K = R_f + \beta (R_m - R_f)$ |
|--------|----|------------------------------------------------------------------------------------------------------------|
| 2 | | where: $K = cost of equity$ |
| 3 | | $R_f = risk$ free rate |
| 4 | | Rm = return on market |
| 5 | | $\beta = beta$ |
| 6 7 | | R_m - R_f = market risk premium |
| 8 | | The CAPM is a variant of the RP method. They differ in the sense that the CAPM |
| 9 | | specifically recognizes the risk of a particular company or industry (i.e., beta), whereas |
| 10 | | the simple RP method assumes the same ROE for all companies exhibiting similar bond |
| 11 | | ratings or other characteristics. |
| 12 | | |
| 13 | Q. | What do you use for the risk-free rate? |
| 14 | A. | The first input of the CAPM is the risk-free rate (R _f). The risk-free rate reflects the level |
| 15 | | of return that can be achieved without accepting any risk. |
| 16 | | In CAPM applications, the risk-free rate is generally recognized by use of U.S. |
| 17 | | Treasury securities. Two general types of U.S. Treasury securities are often utilized as |
| 18 | | the R _f rate: short-term U.S. Treasury bills and long-term U.S. Treasury bonds. |
| 19 | | I have performed CAPM calculations using the three-month average yield (April |
| 20 | | – June 2024) for 20-year U.S. Treasury bonds. I use the yields on long-term Treasury |
| 21 | | bonds since this matches the long-term perspective of ROE analyses. Over this three- |
| 22 | | month period, these bonds had an average yield of 4.67 percent. As I stated in a previous |

section of my testimony, recent Treasury bond yields have been significantly influenced,

in an upward manner, by the Federal Reserve's inflation reduction policies. As such,

23

| 1 | | these do not reflect true "market-determined" rates but are rather administered rates by |
|----|----|--------------------------------------------------------------------------------------------------------------|
| 2 | | the Federal Reserve. |
| 3 | | |
| 4 | Q. | What is beta and what betas do you employ in your CAPM? |
| 5 | A. | Beta is a measure of the relative volatility (and thus risk) of a particular stock in relation |
| 6 | | to the overall market. Betas less than 1.0 are considered less risky than the market, |
| 7 | | whereas betas greater than 1 are riskier. Utility stocks traditionally have had betas below |
| 8 | | 1. I utilize the most recent Value Line betas for each company in the proxy group. |
| 9 | | |
| 10 | Q. | How do you estimate the market risk premium component? |
| 11 | A. | The market risk premium component (R _m -R _f) represents the investor-expected premium |
| 12 | | of common stocks over the risk-free rate, or long-term government bonds. For the |
| 13 | | purpose of estimating the market risk premium, I considered alternative measures of |
| 14 | | returns of the S&P 500 (a broad-based group of large U.S. companies) and 20-year U.S. |
| 15 | | Treasury bonds (i.e., same timeframe of long-term government bonds as employed in |
| 16 | | SBBI Yearbook ⁵⁰ source used to develop risk premiums). |
| 17 | | First, I compared the actual annual ROEs of the S&P 500 with the actual annual |
| 18 | | income returns (i.e., interest rates) of 20-year U.S. Treasury bonds. Exh. DCP-10 shows |
| 19 | | the ROEs for the S&P 500 for the period 1978-2023 (all available years reported by |
| 20 | | S&P). This schedule also indicates the annual yields on 20-year U.S. Treasury bonds and |

⁵⁰ U.S. Capital Markets Performance by Asset Class, 1926-2022, 2023 SBBI Yearbook, Stocks, Bonds, Bills and Inflation, by Kroll (formerly Duff and Phelps, Morningstar, and Ibbotson Associates). (This Yearbook is no longer published).

the annual differentials (i.e., risk premiums) between the S&P 500 and U.S. Treasury 20-

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| 1 | year bonds. Based upon these returns, I conclude that the risk premium from this |
|---|----------------------------------------------------------------------------------|
| 2 | analysis is 7.9 percent. |

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

| 7 | | S&P 500 | L-T Gov't Bonds | Risk Premium |
|---|------------|---------|-----------------|--------------|
| 8 | Arithmetic | 12.0% | 5.6% | 6.4% |
| | Geometric | 10.1% | 5.2% | 4.9% |

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I conclude from this analysis that the expected risk premium is about 6.4 percent (i.e., average of all three risk premiums: 7.9 percent from Exh. DCP-10; 6.4 percent arithmetic and 4.9 percent geometric from SBBI). A combination of arithmetic and geometric means is appropriate since investors have access to both types of means⁵¹ and presumably, both types are reflected in investment decisions and thus, stock prices and the ROE.

16

17

What are your CAPM results? Q.

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

| 19 | | Mean | Median |
|----|-------------|-------|--------|
| 20 | Proxy Group | 10.7% | 10.8% |

⁵¹ For example, Value Line uses compound (i.e., geometric) growth rates in its projection. In addition, mutual funds report growth rates on a compound basis.

| Q. | What is your | conclusion | concerning | the | CAPM | ROE? |
|----|--------------|------------|------------|-----|-------------|------|
|----|--------------|------------|------------|-----|-------------|------|

2 A. The CAPM results collectively indicate a ROE of 10.75 percent (mid-point of the 10.7 percent to 10.8 percent range) for the group of proxy utilities.

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A.

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Q. Are you proposing that these CAPM conclusions be given consideration in your

ROE recommendations in this proceeding?

No, I am not. Prior to and including the COVID-19 pandemic period, I did not give the CAPM results weight in my final ROE recommendations. As I have noted, pre-2022 U.S. Treasury bond yields were heavily impacted, in a downward manner, by Federal Reserve's monetary policies designed to stimulate the economy from the implications of the Great Recession and the COVID-19 pandemic. As a result, in these times, the CAPM results were substantially lower than the DCF and CE results and I correspondingly gave them no weight in my ROE recommendations.⁵²

Over the past three years, the Federal Reserve has reversed this monetary policy strategy, primarily in response to the increase in inflation rates,⁵³ such that yields on U.S. Treasury bonds now reflect the opposite effect of Federal Reserve monetary policy (recent and current rates are upwardly biased). As a result of this reversal of Federal Reserve policy, current interest rates are equally reflective of "nonmarket" factors.

I note, fourth, that the current CAPM ROE results incorporate the "peak" of the interest rates of the Federal Reserve's monetary policy cited previously, as demonstrated

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⁵² See Wash. Util. Transp. Comm. v. Puget Sound Energy, Dockets UE-190529 & UG-190530, Parcell, Exh. DCP-1T, at 39:1-23 (Nov. 22, 2019). I note that in Dockets UE-220066 & UG-220067, Exh. DCP-1T at 41:15-21 and 42: 1-4 (28 July 2022) I did give weight to CAPM results, noting that at that time "...yields on U.S. Treasury bonds now more accurately reflect the 'market' cost of federal debt."

⁵³ Due, in part, to "transition" impacts from COVID-19 shut-down, "supply-chain" effects, and the impact of the Russia-Ukraine conflict.

| I | | by the decline in rates since the October 2023 peak levels. Should rates continue to |
|----|----|--------------------------------------------------------------------------------------------|
| 2 | | decline, as expected by the markets and cited by the Federal Reserve, any later updates of |
| 3 | | the CAPM model will produce lower ROE results. |
| 4 | | I consequently believe that CAPM ROE results should receive no weight at this |
| 5 | | time in the ROE determination for utilities, including PSE. I further note that this |
| 6 | | position is consistent with the Commission's decision to "give little weight to the |
| 7 | | witnesses' CAPM models for the same reasons explained by Dr. Woolridge and Staff |
| 8 | | witness Parcell." ⁵⁴ |
| 9 | | |
| 10 | Q. | How do your CAPM results compare to the CAPM results of Company witness |
| 11 | | Bulkley? |
| 12 | A. | Company witness Bulkley's testimony reaches CAPM conclusions of 10.51 percent to |
| 13 | | 11.90 percent. ⁵⁵ |
| 14 | | |
| 15 | Q. | Do you have any comments concerning Company witness Bulkley's CAPM |
| 16 | | analyses? |
| 17 | A. | Yes, I do. I primarily disagree with Company witness Bulkley's risk premium estimates. |
| 18 | | I also disagree with the use of the "empirical" CAPM ("ECAPM"). |
| 19 | | |
| 20 | Q. | What are your concerns with Company witness Bulkley's market risk premium |
| 21 | | component? |
| | | |

 $^{^{54}}$ *Wash. Util. Transp. Comm'n v. Avista Corp.*, Dockets UE-200900/UG-200901, Final Order 08/05, at 39 \P 100 (27 Sept. 2021). 55 Bulkley, Exh. AEB-1T at 49: Table 4.

| Company witness Bulkley computes a market risk premium (range of 7.78 percent to |
|----------------------------------------------------------------------------------------------------|
| 8.46 percent ⁵⁶) by calculating a constant growth DCF for the S&P 500 companies (using |
| EPS forecasts as the growth component) of 12.56 percent. ⁵⁷ I have previously indicated |
| that Company witness Bulkley's DCF methodology over-states the required ROE. In |
| addition, the use of U.S. Treasury securities as the baseline for the market risk premium |
| is improper during the time period utilized due to the effects of the Federal Reserve's |
| monetary policies and the related impact on U.S. Treasury yields. As I note elsewhere in |
| my testimony, the yields on U.S. Treasury securities over much of the period 2010-2021 |
| were impacted by the Federal Reserve monetary policies designed to offset the impacts of |
| the Great Recession and the COVID-19 pandemic. As a result, these yields should not be |
| used to develop a risk premium and doing so results in inflated risk premiums. This is |
| further reflected in the market risk premium results (i.e., 7.78 percent to 8.46 percent) |
| which are well above the historic levels of risk premiums between the 1926-2022 returns |
| on the S&P 500 and long-term U.S. Treasury bonds, as I described above. |

A.

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

A. Company witness Bulkley also performs an "empirical" CAPM analysis, which assigns 75 percent weight to actual betas for the proxy group of electric utilities and a 25 percent weigh to an assumed beta of 1.0.⁵⁸ I disagree with the ECAPM, since it arbitrarily ignores the actual betas of the proxy utilities and, instead, assigns hypothetical betas to them. It also assumes that investors, such as those who subscribe to and rely on

⁵⁶ Bulkley, Exh. AEB-6.

⁵⁷ *Id.* at 46:5-12; Exh. AEB-8.

⁵⁸ *Id.* at 47-48.

| 1 | | investment services such as Value Line, do not use the actual published Value Line betas | | |
|----|-----------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------|--|--|
| 2 | | but rather "modify" the published betas in an arbitrary fashion. | | |
| 3 | | | | |
| 4 | | X. CE ANALYSIS | | |
| 5 | | | | |
| 6 | Q. | Please describe the basis of the CE methodology. | | |
| 7 | A. | The CE method is derived from the "corresponding risk" concept discussed in the | | |
| 8 | | Bluefield and Hope cases. This method is thus based upon the economic concept of | | |
| 9 | | opportunity cost. As previously noted, the ROE is an opportunity cost: the prospective | | |
| 10 | | return available to investors from alternative investments of similar risk. | | |
| 11 | | The CE method is designed to measure the returns expected to be earned on the | | |
| 12 | | original cost book value of similar risk enterprises. Thus, it provides a direct measure of | | |
| 13 | the fair return, since it translates into practice the competitive principle upon which | | | |
| 14 | | regulation rests. | | |
| 15 | | The CE method normally examines the experienced and/or projected return on | | |
| 16 | | book common equity. The logic for examining returns on book equity follows from the | | |
| 17 | | use of original cost rate base regulation for public utilities, which uses a utility's book | | |
| 18 | | common equity to determine the cost of capital. This cost of capital is, in turn, used as | | |
| 19 | | the fair rate of return which is then applied (multiplied) to the book value of rate base to | | |
| 20 | | establish the dollar level of capital costs to be recovered by the utility. This technique is | | |

thus consistent with the rate base, rate of return methodology used to set utility rates.

| Q. | How do you apply the | CE methodology in yo | our analysis of PSE's ROE? |
|----|----------------------|----------------------|----------------------------|
| | | | |

I apply the CE methodology by examining realized and projected ROEs for the group of proxy utilities, as well as unregulated companies, and evaluating investor acceptance of these returns by reference to the resulting market-to-book ratios ("M/Bs"). In this manner it is possible to assess the degree to which a given level of return equates to the COC. It is generally recognized for utilities that an M/B of greater than one (i.e., 100 percent) reflects a situation where a company is able to attract new equity capital without dilution (i.e., above book value). As a result, one objective of a fair ROE is the maintenance of stock prices at or above book value. There is no regulatory obligation to set rates designed to maintain an M/B significantly above one.

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

A.

A.

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

My CE analysis considers the experienced ROEs of the proxy group of utilities for the period 2002-2023 (the last 23 years), as well as projected ROEs. The CE analysis requires that I examine a relatively long period of time in order to determine trends in earnings over at least a full business cycle. Further, in estimating a fair level of return for a future period, it is important to examine earnings over a diverse period of time in order to avoid any undue influence from unusual or abnormal conditions that may occur in a

| 1 | | single year or shorter period. Therefore, in fo | rming my judgment of the current cost of | |
|----------|----|-----------------------------------------------------------------------------------------|-------------------------------------------------|--|
| 2 | | equity, I focused on two historic periods: 2009-2020 (the most recent business cycle) a | | |
| 3 | | 2002-2008 (the prior business cycle). I have a | also considered actual ROEs for 2021, | |
| 4 | | 2022, 2023 and projected ROEs for 2024, 202 | 25 and 2027-2029 (i.e., current business | |
| 5 | | cycle). | | |
| 6 | | | | |
| 7 | Q. | Please describe your CE analysis. | | |
| 8 | A. | Exh. DCP-12 and Exh. DCP-13 contain summ | naries of experienced ROEs and M/Bs for | |
| 9 | | two groups of companies, while Exh. DCP-14 | presents a risk comparison of utilities | |
| 10 | | versus unregulated firms. | | |
| 11 | | Exh. DCP-12 shows the ROEs and M/ | Bs for the group of proxy utilities. These | |
| 12 | | can be summarized as follows: | | |
| 13 | | | Proxy Group | |
| 14 | | Historic Periods ROE Mean | 9.3-9.4% | |
| 15 | | Median | 9.4% | |
| 16 | | Historic Periods M/B Mean | 150-165% | |
| 17 | | Median Current Period ROE | 145-155% | |
| 18 19 | | Mean Median | 9.7% 8.8% | |
| 20 | | These results indicate that historic ROEs of 9. | 3 percent to 9.4 percent been adequate to | |
| 21 | | produce M/Bs of 145 percent to 165 percent for | or the group of utilities. In addition, current | |
| 22 | | and projected ROEs of 8.8 percent to 9.7 percent | cent for the proxy group have been | |

accompanied by M/Bs of over 150 percent in the most recent year (2023).

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

Yes. As an alternative, I also examine the S&P 500. This is a well-recognized group of firms that is widely utilized in the investment community and is indicative of the competitive sector of the economy. Exh. DCP-13 presents the earned ROEs and M/Bs for the S&P 500 over the past twenty-three years (i.e., 2002-2023). As this schedule indicates, over the two business cycle periods, ⁵⁹ this group's average ROEs ranged from 12.4 percent to 14.5 percent, with average M/Bs ranging between 275 percent and 296 percent.

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Q. How can the above information be used to estimate PSEs ROE?

The recent ROEs of the proxy utilities and S&P 500 group can be viewed as an indication of the level of return realized and expected in the regulated and competitive sectors of the economy. In order to apply these returns to the ROE for the proxy utilities, however, it is necessary to compare the risk levels of the utilities and the competitive companies. I do this in Exh. DCP-14, which compares several risk indicators for the S&P 500 and the utility proxy group. The information in this exhibit indicates that the S&P 500 is riskier than the utility proxy group, as evidenced by the fact that the utility group was able to achieve similar/superior risk indicators while earning lower ROEs.

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Q. What ROE is indicated by your CE analysis?

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⁵⁹ My analysis of the S&P 500 includes the years 2021, 2022 and 2023 in the recent business cycle, as there are no Value Line estimated ROEs for this group as a whole and therefore the 2021, 2022 and 2023 figures do not reflect a "current business cycle" projection.

| 1 | A. | Based on recent ROEs and M/Bs, my CE analysis indicates that the ROE for the proxy |
|----|----|----------------------------------------------------------------------------------------------|
| 2 | | utilities is no more than 9.0 percent to 9.5 percent (9.25 percent mid-point). Recent |
| 3 | | ROEs of 9.3 percent to 9.4 percent have resulted in M/Bs of 145 percent and over. |
| 4 | | Current/prospective ROEs of 8.8 percent to 9.7 percent have been accompanied by M/Bs |
| 5 | | over 150 percent. As a result, it is apparent that authorized returns below this level would |
| 6 | | continue to result in M/Bs of well above 100 percent. As I indicated earlier, the fact that |
| 7 | | M/Bs substantially exceed 100 percent indicates that historic and prospective ROEs of |
| 8 | | 9.0 percent to 9.5 percent reflect earning levels that are well above the actual cost of |
| 9 | | equity for those regulated companies. I also note that a company whose stock sells above |
| 10 | | book value can attract capital in a way that enhances the book value of existing |
| 11 | | stockholders, thus creating a favorable environment for financial integrity. Finally, I note |
| 12 | | that my 9.0 percent to 9.5 percent CE recommendation reflects the actual and prospective |
| 13 | | ROEs for the proxy group. I have made no adjustments to these return levels to reflect |
| 14 | | the high M/Bs. |
| 15 | | |
| 16 | Q. | Please now turn to Company witness Bulkley's Expected Earnings Approach. |
| 17 | | Please summarize the use of this methodology and conclusions. |

Company witness Bulkley's Expected Earnings Approach is a form of the CE

opposed to Value Line's reporting on year-end equity).

methodology. Witness Bulkley has tabulated Value Line's "expected" return on equity

for the proxy group of companies, which is adjusted for a return on average equity (as

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| 1 | | Company witness Bulkley's tabulation shows an "Adjusted Return on Common |
|----|----|---------------------------------------------------------------------------------------------|
| 2 | | Equity" average of 10.31 percent to 10.86 percent. ⁶⁰ |
| 3 | | |
| 4 | Q. | Do you have any criticisms of Company witness Bulkley's Expected Earnings |
| 5 | | Approach and related conclusions? |
| 6 | A. | Yes. It is inappropriate to focus only on expected ROE without any reference to how |
| 7 | | such returns are accepted by investors. A more appropriate analysis of expected returns |
| 8 | | on equity is done in conjunction with M/Bs. I reviewed witness Bulkley's Expected |
| 9 | | Earnings Approach by evaluating the investor acceptance of these cited ROEs by |
| 10 | | reference to the corresponding M/Bs. In this manner, it is possible to assess the degree to |
| 11 | | which a given level of ROE equates to the COC, as I described previously. Book value is |
| 12 | | a relevant concept for regulated utilities due to the use of rate of return, rate base |
| 13 | | regulation, which employs book value for both rate and capital structure. Investors know |
| 14 | | that utility rates are established based, in part, on book values. |
| 15 | | Exh. DCP-13, page 3 shows the 2021-2023 actual ROE's and 2024, 2025, and |
| 16 | | 2027-29 projected ROEs of Company witness Bulkley's proxy group, as well as the 2023 |
| 17 | | M/Bs of this group. It is noteworthy that the actual 2021, 2022 and 2023 ROEs are well |
| 18 | | below Company witness Bulkley's 10.31 percent to 10.86 percent CE recommendation. I |
| 19 | | also note that the annual median ROEs are about 10 percent or less. Finally, the 2023 |
| 20 | | M/Bs are above 160 percent, which indicates that the ROEs are expected to exceed the |
| 21 | | COC. |

⁶⁰ Bulkley, Exh. AEB-1T at 55:16-22; Exh. AEB-10.

| 1 | | Third, it is evident that the expected ROEs for the proxy companies, which are |
|----|----|---------------------------------------------------------------------------------------------------|
| 2 | | mostly holding companies, are substantially higher than the authorized ROEs for electric |
| 3 | | utilities. |
| 4 | | Company witness Bulkley's "Expected Earnings Approach" is thus shown to also |
| 5 | | overstate the ROE for electric utilities. Company witness Bulkley's use of expected |
| 6 | | ROEs for the proxy companies, without reference or corroboration with either M/Bs or |
| 7 | | the levels of authorized ROEs, does not provide useful information concerning the ROE |
| 8 | | for PSE. |
| 9 | | |
| 10 | | XI. RISK PREMIUM ANALYSES |
| 11 | | |
| 12 | Q. | What are your responses to Company witness Bulkley's bond yield plus risk |
| 13 | | premium analysis? |
| 14 | A. | Company witness Bulkley's risk premium approach compares the allowed ROEs for |
| 15 | | vertically integrated electric utilities and 30-Year U.S. Government Bond yields over the |
| 16 | | period 1992 to November 2023 ⁶¹ Company witness Bulkley applies a regression result to |
| 17 | | various projected levels of 30-year U.S. Treasury Bonds and correspondingly arrives at a |
| 18 | | 10.22 percent to 10.51 percent ⁶² |
| 19 | | Company witness Bulkley's bond yield plus risk premium analysis suffers from |
| 20 | | the same deficiencies as the market risk premium in the CAPM analyses. In addition, it |

uses recent U.S. Treasury 30-year bond yields to calculate the risk premium, which have

been impacted by the Federal Reserve policies associated with the Great Recession and

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⁶¹ Bulkley Exh. AEB-1T at 51:11-13.

⁶² *Id.* at 53:7-10; Exh. AEB-9.

| COVID-19 recession, as noted previously. This period corresponds to the post-Great |
|-------------------------------------------------------------------------------------|
| Recession period in which the actions of the Federal Reserve kept interest rates |
| artificially low, resulting in higher indicated risk premiums, as noted previously. |

In addition, the risk premium analyses, by going back to 1992, are impacted by the differences in the risks faced by electric utilities over this period. For example, in the early 1990s, electric utilities were engaged in diversification and deregulation (which was accompanied by a higher level of risks), a trend that has been reversed over the past decades. In addition, the prevalence of favorable regulatory mechanisms over the more recent period had decreased the risk of utilities.⁶³

Finally, Company witness Bulkley's risk premium approach incorporates a recognition and measurement of the inverse relationship between the level of interest rates and the level of risk premiums. This requires an additional set of factors and assumptions which impact the ultimate RP conclusions.

Q. Have you performed an independent RP analysis in order to avoid the deficiencies in Company witness Bulkley's RP analysis?

A. Yes, I have. As I noted above, Company witness Bulkley's RP analyses consider the authorized ROEs of electric utilities dating back to 1992, a relatively long period of time. As I indicated earlier in my testimony (and as shown on Exh. DCP-3, page 2), this period experienced significant declines in interest rates, which is another component of the RP analysis. Company witness Bulkley attempts to "correct" for changes in interest rates by performing a regression analysis that considers only the perceived relationship between

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⁶³ See, e.g., "US Utility Sector Upgrades Driven by Stable and Transparent Regulatory Frameworks," Moody's Investors Service, Sector Comments, (3 Feb. 2014).

authorized ROEs, interest rates, and the resulting period RPs. Such an analysis does not recognize any other changes in RPs, such as the electric utility industry's movement into and out of diversification and deregulation in the 1990s, as well as increased use of regulatory mechanisms (i.e., decoupling, cost recovery mechanisms, etc.) over the past decade. As a result, this regression analysis does not properly capture the current relationship between authorized ROEs and interest rates, as it assumes that there are no factors other than interest rates that impact risk premiums over the study period going back to 1992.

I have accordingly performed a risk premium analysis that focuses on the most recent twelve-year period (*i.e.*, post-Great Recession period) of authorized ROEs and triple-B (i.e., PSE's rating category) utility bond yields. My analysis, by focusing on the more current time period, is not subject to the longer-term deficiencies in Company witness Bulkley's risk premium analyses (e.g., changes in regulatory environment) over the shorter time period.

A.

Q. Please describe your risk premium analysis.

My RP analysis is shown on Exh. DCP-15. I have compared the authorized ROEs of electric utilities that were decided in the period 2012 to 2023. I show two sets of subperiods: the period 2012 – 2019 (*i.e.*, the pre-COVID-19 period when average interest rates were 4.45 percent to 5.17 percent), and 2012 – 2023 (which adds the for most recent years to the earlier period). I first focus on the period 2012 to 2019 since the prevailing levels of interest rates on triple-B utility bonds during this period were in the range of 4.45 percent to 5.17 percent. I note that the inclusion of 2020 to 2023 risk premiums are

Page 53

| 1 | | impacted by the COVID-19 pandemic, as well as the Federal Reserve's anti-inflation |
|--------------------------------|----|----------------------------------------------------------------------------------------------|
| 2 | | monetary policies but are consistent with the $2012 - 2019$ years. During this later period |
| 3 | | triple-B utility interest rates varied from 3.28 percent to 5.54 percent, a much wider range |
| 4 | | than during the 2012-2019 period. |
| 5 | | Also shown on Exh. DCP-15 are the levels of triple-B utility bonds, with |
| 6 | | corresponding "lags" (between the level of interest rates and the respective commission |
| 7 | | decisions) of: |
| 8 9 10 11 12 13 | | No months, 3 months, 6 months, 9 months, and 12 months. |
| 14 | | The purpose of showing the lags is to recognize that authorized ROEs often reflect test |
| 15 | | period and/or hearing period financial conditions that are not simultaneous with the date |
| 16 | | of the respective commission's final decision establishing the authorized ROEs. |
| 17 | | The data in Exh. DCP-15 shows the annual average of authorized ROEs for |
| 18 | | electric utilities, along with several lagged interest rates, as well as the resulting risk |
| 19 | | premiums associated with the two sets of annual interest rates. |
| 20 | | |
| 21 | Q. | What are the results of your calculations? |
| 22 | A. | As shown on Exh. DCP-15, the annual and multi-year risk premiums are as follows: |
| 23 | | |
| 24 | | |
| 25 | | |
| 26 | | |

| 1 | | Baa-Rated | | |
|---|----------------------|---------------------|---------------|-------------------------------------|
| | Year | Bonds ⁶⁴ | Avg ROE | Risk Premiums |
| | 2012 | 5.17% | 10.02% | 4.45-5.16% |
| | 2013 | 4.83% | 9.82% | 4.84-5.12% |
| | 2014 | 4.97% | 9.76% | 4.69-4.96% |
| | 2015 | 4.80% | 9.60% | 4.57-4.95% |
| | 2016 | 5.01% | 9.60% | 4.36-4.92% |
| | 2017 | 4.50% | 9.68% | 5.00-5.30% |
| | 2018 | 4.45% | 9.56% | 4.89-5.24% |
| | 2019 | 4.57% | 9.65% | 4.88-5.46% |
| | 2020 | 3.75% | 9.39% | 5.20-6.00% |
| | 2021 | 3.28% | 9.39% | 6.00-6.39% |
| | 2022 | 4.02% | 9.58% | 4.55-6.22% |
| | 2023 | 5.54% | 9.66% | 3.82-4.63% |
| | 2012-2023 | | | |
| | 12-Year Avg. | 4.57% | 9.64% | 5.04-5.10% |
| | 2012-2019 | | | |
| 2 | 8-Year Avg. | 4.79% | 9.71% | 4.84-5.01% |
| 3 | In my RP analyses, l | use both of t | he above-cite | ed periods and resulting RP ranges: |
| 4 | 2012-2019 | 4.84-5.01% |) | |

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

5.04-5.10%

2012-2023

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

Current yields on Baa-rated utility bonds are about 6 percent, or 83 to 155 basis points higher.

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 $^{^{64}}$ Average annual yields of all "lag" time periods.

| 1 | It is recognized that risk premiums are not constant over time but vary inversely |
|----|---------------------------------------------------------------------------------------------|
| 2 | with levels of interest rates (i.e., as interest rates increase, risk premiums decline, and |
| 3 | vice versa). I note, in this regard that Company witness Bulkley cites this inverse |
| 4 | relationship.65 Company witness Bulkley's testimony also concludes that the inverse |
| 5 | relationship between interest rates and risk premiums reflects approximately a 58 basis |
| 6 | point change in the risk premium associated with a 100 basis point change in interest |
| 7 | rates. 66 In my RP analyses, I accept Company witness Bulkley's assumption of this |
| 8 | relationship between risk premium of interest rate changes. In doing so, I am attempting |
| 9 | to minimize the relative differences between our respective RP approaches. ⁶⁷ |
| 10 | Page 1 of Exh. DCP-15 shows the steps in my RP analysis. This indicates a RP |
| 11 | conclusion of 9.42 percent to 10.80 percent, which incorporates the following inputs: |
| 12 | 1. 2012-2019 and 2012-2023 risk premium ranges; |
| 13 | 2. Current level of Baa utility bond yield; |
| 14 | 3. Interest rate range of Baa utility bonds for 2012-2019 and 2012-2023; |
| 15 | 4. Relationship between interest rates and bond yields; |
| 16 | 5. Required change in risk premium for differential in current and past interest |
| 17 | rate; |
| 18 | 6. Risk premium. |
| 19 | |
| 20 | |

⁶⁵ Bulkley, Exh. AEB-1T at 52: Figure 6.

⁶⁶ Note that Company witness Bulkley's RP analyses conclude that the negative relationship between interest rates and risk premiums is about .582 percent (Exh. AEB-1T at 52: Figure 6).

67 This assumes that this portion of the relationship (i.e., slope of regression line) is the same whether U.S. Treasury

bonds or utility bonds is used for measurement.

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

A. Exh. DCP-15 shows RP results of 9.90 percent to 10.49 percent for the 2012-2019 period and 9.42 percent to 10.80 percent for the 2012-2023 period. Note that the latter period shows a wider spread of the RP results, although the mid-point is the same as the 2012-2019 period. Based on these results, I conclude that the RP result for PSE's ROE range is a range of 9.4 percent to 10.8 percent (10.1 percent mid-point).

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XII. RETURN ON EQUITY RECOMMENDATION

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

11 A. My four ROE analyses produced the following results:

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| | Mid-Point | Range |
|-------------|-----------|------------|
| DCF | 9.50% | 9.0-10.0% |
| $CAPM^{68}$ | 10.75% | 10.7-10.8% |
| CE | 9.25% | 9.0-9.5% |
| RP | 10.1% | 9.4-10.8% |
| Average | 9.62% | 9.62% |
| Median | 9.5% | 9.5% |

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These results indicate an overall broad range of 9.0 percent to 10.8 percent, which focuses on the respective high and low individual model results. Using mid-point values, the range is 9.25 percent to 10.1 percent. I note that the CAPM results are an "outlier" in comparison to the other model results. I recommend a ROE range of 9.5 percent to 10.0 percent for PSE at this time, which gives consideration to the results of each of the ROE methodologies excluding CAPM. Within this ROE range recommendation, I recommend

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⁶⁸ CAPM results not included in mean and median results.

| 1 | | a 9.5 percent ROE for PSE, which is the bottom of my recommended range. This is |
|----------------------------------------------|----|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 2 | | appropriate due to the risk-reducing attributes of the MYRP aspects of SB 5295, as well |
| 3 | | as the Commission's practice of employing gradualism in changing ROEs for utilities. |
| 4 | | |
| 5 | Q. | Are there any additional factors that should be considered in determining the |
| 6 | | appropriate ROE for PSE in this proceeding? |
| 7 | A. | Yes, there are. First, as I noted previously, the positive impacts of SB 5295 are now |
| 8 | | more clearly in focus and have the effect of reducing the risk of PSE. |
| 9 | | In addition, this Commission has consistently applied a principle of gradualism in |
| 10 | | setting the ROEs for the utilities in the State. The Commission has stated: ⁶⁹ |
| 11 12 13 14 15 16 17 18 | | "When considering changes to a regulated utility's authorized ROE, we endeavor to avoid material adjustments, upward or downward, in authorized levels to provide stability and assurance to investors and others regarding the regulatory environment supporting the financial integrity of the utility. Based on the evidence produced by the various expert witnesses, we generally determine whether modest increases, if any, to currently authorized levels are appropriate given the evidence produced in the immediate proceeding." ⁷⁰ |
| 20 | | Based on these factors, my 9.5 percent ROE recommendation, which is 0.10 |
| 21 | | percent higher than PSE's currently authorized 9.4 percent, is reasonable and appropriate. |
| 22 | | |
| 23 | | |

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⁶⁹ Wash. Utils. Transp. Comm'n v. Puget Sound Energy Inc., Dockets UE-190529, et al., Final Order 08. 35, ¶ 105 (July 8, 2020). ⁷⁰ Wash. Utils. Trans. Comm'n v. Avista Corp., Dockets UE-170485, UG-170486, UE-171221 & UG-171222, Order

^{07/02/02, 28, ¶ 68 (}April 26, 2018).

| 1 | | XIII. TOTAL COST OF CAPITAL |
|----|----|-----------------------------------------------------------------------------------------------------|
| 2 | | |
| 3 | Q. | What are the total COCs for PSE? |
| 4 | A. | Exh. DCP-3 reflects the total COC for PSE using the Company's 2025 and 2026 |
| 5 | | embedded costs of debt, along with my capital structure and ROE recommendations. The |
| 6 | | total cost of capital I recommend for 2025 is 7.36%. The total cost of capital I |
| 7 | | recommend for 2026 is 7.37%. |
| 8 | | |
| 9 | | XIV. COMMENTS ON COMPANY TESTIMONY |
| 10 | | |
| 11 | Q. | What ROE is PSE requesting in this proceeding? |
| 12 | A. | PSE is requesting a 9.95 percent ROE for the 2025 period and 10.50 percent for the 2026 |
| 13 | | period. These ROE levels are sponsored by Company witness Bulkley. ⁷¹ |
| 14 | | |
| 15 | Q. | What is the basis of Company witness Bulkley's ROE recommendation? |
| 16 | A. | Company witness Bulkley's ROE analyses are summarized on Exh. AEB-3. The various |
| 17 | | ROE results are seen to fall within a broad range of about 9.9 percent to 11 percent. ⁷² |
| 18 | | Company witness Bulkley's testimony makes no specific ROE recommendations but |
| 19 | | rather concludes "PSE's proposal to phase in the ROE – 9.95 percent for the first year |
| 20 | | and 10.5 percent for the remainder of the MYRP – is reasonable." ⁷³ |
| 21 | | |
| | | |

⁷³ *Id.* at 8: 6-8.

⁷¹ Bulkley, Exh. AEB-1T at 6: Figure 1; AEB-3. ⁷² *Id.*

| 1 | Q. | Do you have any general comments on Company witness Bulkley's methodologies |
|----|----|-------------------------------------------------------------------------------------------------------|
| 2 | | and conclusions? |
| 3 | A. | Yes. Each of Company witness Bulkley's methodologies is biased in a way that |
| 4 | | overstates the current and prospective ROE for the proxy group and for PSE. I have |
| 5 | | previously addressed each of these methodologies and conclusions above. |
| 6 | | |
| 7 | Q. | Are there any other aspects of the respective testimonies of PSE witnesses that |
| 8 | | propose to impact the appropriate capital structure and ROE for the Company? |
| 9 | A. | Yes, there is one other financial issue proposed by PSE, namely the impact of the |
| 10 | | Company's cash flows and finances as they relate to the security ratings of the Company, |
| 11 | | as cited by Company witnesses Peterman and Shipman. |
| 12 | | Company witness Peterman devotes a section of testimony to "The Importance of |
| 13 | | Cash Flow and Credit Ratings in Achieving the Clean Energy Transition." ⁷⁴ In addition, |
| 14 | | Company witness Shipman devotes an entire testimony to the concepts of credit ratings. ⁷⁵ |
| 15 | | |
| 16 | Q. | Please briefly summarize Company witness Peterman's testimony on this topic and |
| 17 | | provide your responses to the related assertions. |
| 18 | A. | Company witness Peterman maintains that credit ratings and underlying credit metrics are |
| 19 | | important to PSE's measurement of and maintenance of its financial health. ⁷⁶ They also |
| 20 | | maintain that PSE's credit metric performance indicates declining creditworthiness. ⁷⁷ The |
| 21 | | stated reasons for this "stagnation" are : (1) the passage of the Tax Cuts and Jobs Act |
| | | |

<sup>Peterman, Exh. CGP-1T at 19-48.
Shipman, Exh. TAS-1T.
Peterman, Exh. CGP-1T at 19-24.</sup>

⁷⁷ *Id.* at 24-33.

("TCJA") in 2017, which was implemented in 2018; and (2) the outcome of the rate proceedings in Dockets UE-190529 et al. (the "2019 General Rate Case"). 78

I note that both of these events occurred at least five years ago. PSE's security ratings did not decline subsequent to these two events, as is shown in Exh. DCP-5. In addition, these two events were superseded by a subsequent set of rate proceedings (Dockets UE-220066 et al.) that employed a new ratemaking mechanism (*I.e.*, MYRP) which, as described earlier in my testimony, has been favorably cited by the rating agencies. As a result of these factors, it is improper to claim that "dated" reasons cited by Company witness Peterman should be used as a justification for either a higher ROE or higher equity ratio in the current proceeding.

Company witness Peterman also maintains that the 2022 MYRP proceeding "has not yielded the type of sustained credit metric performance that PSE needs to be able to maintain credit ratings in the face of substantial capital funding needs." This statement runs counter to the recent descriptions of the 2022 MYRP proceeding by the rating agencies, which I described earlier in my testimony. In addition, it does not recognize that PSE's credit ratings are consistent with those of utilities in general, as I indicated previously in my testimony.

Q. What is your response to the testimony of Company witness Shipman?

A. Company witness Shipman's testimony provides a general description of credit ratings and how they are employed by public utilities. This also describes PSE's credit ratings and what he perceives to be the "main drivers" in the rating agencies' opinions of PSE's credit

⁷⁸ *Id*. 27: 4-8.

⁷⁹ *Id.* at 30: 21 and 31:1-2.

| quality. As was the case with the testimony of Company witness Peterman, the testimony |
|----------------------------------------------------------------------------------------------|
| of Company witness Shipman focuses on the "unfavorable" 2020 rate case decision. 81 Also |
| like the testimony of Company witness Peterman, Company witness Shipman's testimony |
| gives scant attention to the most recent rate case and related MYRP. As I noted in the prior |
| answer regarding Company witness Peterman's testimony, Company witness Shipman also |
| largely ignores the positive impacts of the MYRP concept and the Commission's initial |
| adoption of this concept. |

A.

Q. Do you have any additional comments concerning the respective testimonies of Company witnesses Peterman and Shipman?

Yes, I do. Even though both of these testimonies address the concept of PSE's security ratings, neither adequately cites the response of the rating agencies to the Company's most recent rate proceedings (*i.e.*, Docket No. UE-220066 et al.). Even though Company witness Peterman includes a recent S&P "Credit Opinion" on PSE, ⁸² the testimony does not acknowledge the favorable descriptions of the MYRP and other regulatory mechanisms that PSE now has access to. Company witness Shipman (who previously worked for S&P) also appears to largely ignore this report and its response to the MYRP and other regulatory mechanisms that PSE enjoys. It is important to note that S&P stated: ⁸³

<u>Puget Sound Energy, Inc.'s</u> (PSE) credit profile is supported by its rate regulated utility operations that benefit from a number of credit supportive cost recovery mechanisms authorized by its primary regulator, the Washington Utilities and Transportation Commission (WUTC). PSE's credit quality continues to be constrained by high holding company debt at its parent, <u>Puget Energy, Inc.</u> (Puget, Baa3 stable).

⁸⁰ Exh. TAS-1T at 21-26.

Id. at 22: 3-12.

⁸² Exh. CGP-9 at 20-32.

⁸³ *Id*.

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PSE's 2022 general rate case (filed January 2022) concluded in a multiparty settlement for a two year rate plan. In early January 2023, the WUTC approved the settlement with new rates effective in January 2023. We view the conclusion of the 2022 general rate case as credit positive and indicates that Washington regulation has become more consistent following the state's passage of SB 5116 and SB 5295 in 2019 and 2021, respectively.

As of the last twelve months ending 30 June 2023, PSE's credit metrics improved including a ratio of cash flow from operations before changes in working capital (CFO pre-WC) to debt to about 19% from 16% at the end of 2022. The improvement is driven by stronger cash flow generation primarily because of the new rates as well as collection of the purchase power and fuel costs that were deferred in 2022. We expect credit metrics to be sustained between 18% and 20% over the next two years.

Rating Outlook

The stable outlook reflects PSE's credit supportive relationship with the WUTC and its stable and predictable cash flow that will maintain financial metrics, including a ratio of CFO pre-WC to debt in the 18-20% range over the next several years.

Improved financial profile driven by credit supportive general rate

PSE's cash flow and credit metrics have been pressured over the last several years because of tax reform, a contentious rate case outcome in 2020, higher fuel and purchase power costs and significant capital expenditures. Favorably, PSE's 2022 general rate case concluded in a credit positive settlement that the WUTC approved in January 2023, with new rates becoming effective immediately and leading to stronger cash flow generation. The utility also received authorization to collect all of the fuel and purchase power costs it deferred in 2022 this year, another credit positive development.

As a result, the utility's credit metrics improved including a CFO pre-WC to debt ratio reaching 19% as of the last twelve months ending 30 June 2023. We expect PSE to maintain this ratio in the 18-20% range over the next two years. The approved 202 general rate case settlement established a two year ate plan, which set rates for 2023 and 2024. The utility plans to file a general rate case in 2024 to take effect in 2025.

We expected that, with the passage of the Clean Energy Transition Act (CETA, SB 5116) by the Washington legislature in 2019, PSE would benefit from more credit supportive regulatory outcomes. Although PSE's 2020 general rate case was contentious and result in a credit negative outcome, we view these proceedings as an isolated and one time event

because the WUTC was focused on mitigating the customer bill impact as a result of the unfavorable economic conditions caused by the coronavirus pandemic. The settlement of its last general rate case, the first multiyear rate plan approved following the 2021 passage of SB 5295 (discussed in the next section), points to more consistent regulation in the state of Washington.

Credit supportive cost recovery mechanisms in place

The WUTC affords PSE a number of credit supportive cost recovery mechanisms which include decoupling, an electric and gas conservation rider, an electric property tax tracker, a power cost adjustment mechanism (PCA) and a purchased gas adjustment mechanism (PGA). PSE's revenue decoupling mechanism helps the utility to obtain greater fixed cost recovery in both its electric and gas segments. The PCA and PGA allow it to directly pass the costs of purchased power and natural gas through to customers annually. PSE also has the option to use an expedited rate filing (ERF) or power cost only rate case (PCORC) to recovery costs on an accelerated basis between general rate cases.

PSE's 2022 general rate case concluded in a multiparty settlement that was approved by the WUTC in early January 2023. The approved settlement included a two year rate plan that authorized an electric rate increase of \$247 million (10.75%) in 2023 and \$33.1 million (1.33%) in 2024 effective 11 January 2023. For the gas rate increase, the settlement authorized an increase of \$70.8 million (6.4%) in 2023 and \$19.5 million (1.65%) in 2024 effective 7 January 2023. The utility's ROE and equity layer remain the same as previously authorized at 9.4% and 49%, respectively, for both electric and gas.

The original filing requested a three year multiyear rate plan for both electric and gas. The filing requested an overall increase in electric and gas rates of \$310.6 million (13.6%) and \$143 million (13.0%), respectively in 2023; \$63.1 million (2.5%) and \$28.5 million (2.3%, respectively in 2024 and \$31.8 million (1.2%) and \$23.3 million (1.8%), respectively, in 2025. It also requested a 9.9% ROE for all three years and a stepped capital structure of 49% in 2023, 49.5% in 2024 and 50% in 2025.

With the exception of the 2020 rate case, PSE had historically maintained a credit supportive relationship with the WUTC and we view the settlement of the 2022 general rate cases continuing in that trend. We expect the company to continue to receive supportive regulatory outcomes consistent with the state's passage of SB 5116 and SB 5295 in 2019 and 2021, respectively. The bills aimed to reform the regulatory framework and pave the way for multiyear rate plans and performance base rate making.

| 1 | | It is thus apparent that S&P has officially taken a more positive view |
|---|----|----------------------------------------------------------------------------|
| 2 | | of PSE's financial strength and the direction of change in its metrics, in |
| 3 | | relation to that indicated in the respective testimonies of Company |
| 4 | | witnesses Peterman and Shipman. |
| 5 | | |
| 6 | Q. | Does this conclude your testimony? |
| 7 | A. | Yes, it does. |