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August 22, 2023

Via Electronic Filing

Public Utility Commission of Oregon Attn: Filing Center 201 High St. SE, Suite 100 Salem OR 97301

Re: In the Matter of PORTLAND GENERAL ELECTRIC CO.

Request for a General Rate Revision.

Docket No. UE 416

Dear Filing Center:

Please find enclosed the Rebuttal General Rate Case Testimony of Christopher C. Walters on behalf of the Alliance of Western Energy Consumers and Oregon Citizens' Utility Board (AWEC-CUB/200) in the above-referenced docket.

Thank you for your assistance. If you have any questions, please do not hesitate to call.

Sincerely,

/s/ Jesse O. Gorsuch
Jesse O. Gorsuch

Enclosure

BEFORE THE PUBLIC UTILITY COMMISSION OF OREGON

UE 416

| In the Matter of |) |
|---------------------------------------|---|
| PORTLAND GENERAL ELECTRIC COMPANY, |) |
| Request for a General Rate Revision. |) |

REBUTTAL TESTIMONY OF CHRISTOPHER C. WALTERS

ON BEHALF OF

ALLIANCE OF WESTERN ENERGY CONSUMERS / OREGON CITIZENS' UTILITY BOARD

August 22, 2023

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| 1 | Q. | PLEASE STATE YOUR NAME AND BUSINESS ADDRESS. |
|----------|----|--|
| 2 | A. | Christopher C. Walters. My business address is 16690 Swingley Ridge Road, Suite 140, |
| 3 | | Chesterfield, MO 63017. I am employed by the firm of Brubaker & Associates, Inc. |
| 4 | | ("BAI"), regulatory and economic consultants with corporate headquarters in Chesterfield, |
| 5 | | Missouri. |
| 6 7 | Q. | ARE YOU THE SAME CHRISTOPHER C. WALTERS WHO PREVIOUSLY FILED TESTIMONY IN THIS PROCEEDING? |
| 8 | A. | Yes. I filed opening testimony on behalf of the Alliance of Western Energy Consumers |
| 9 | | ("AWEC") and the Oregon Citizens' Utility Board ("CUB" and, collectively |
| 10 | | "AWEC/CUB"). |
| 11 | Q. | WHAT IS THE SUBJECT MATTER OF YOUR REBUTTAL TESTIMONY? |
| 12 | A. | The purpose of my rebuttal testimony is to respond to the Reply Testimony of Dr. Bente |
| 13 | | Villadsen and Mr. Christopher Liddle, which is collectively presented in PGE/2400. My |
| 14 | | silence with regard to any position taken by PGE or other parties in this proceeding does |
| 15 | | not indicate my endorsement of those positions. |
| 16 17 | Q. | ARE YOU SPONSORING ANY EXHIBITS IN CONNECTION WITH YOUR REBUTTAL TESTIMONY? |
| 18 | A. | No. |
| 19 | | I. SUMMARY |
| 20 21 | Q. | PLEASE SUMMARIZE YOUR RECOMMENDATIONS AND CONCLUSIONS ON RATE OF RETURN. |
| 22 | A. | The modifications that the Company witnesses make to my analyses result in an overstated |
| 23 | | fair return on equity and should be ignored. Throughout the balance of this testimony I |
| 24 | | will address them accordingly. I continue to recommend that PGE's ROE be set at its |
| | | |

| 1 | | currently authorized level of 9.5%, which is within my recommended range of 9.2% to |
|----------------|-----------|--|
| 2 | | 9.9%. |
| 3 | | II. RESPONSE TO DR. VILLADSEN AND MR. LIDDLE |
| 4 5 6 | Q. | PLEASE SUMMARIZE THE PRIMARY CONCERNS THE COMPANY WITNESSES HAVE WITH THE ANALYSES PROVIDED IN SUPPORT OF YOUR RECOMMENDATION. |
| 7 | A. | The primary concerns expressed by the Company Witnesses can be summarized as follows: |
| 8 | | My sustainable growth DCF model suffers from relying solely on one source of growth |
| 9 | | rates (Value Line) and that the model assumes an expected earned ROE that is |
| 10 | | inconsistent with the calculated ROE of 8.89%. |
| 11 | | • They assert that my Risk Premium method fails to account for the inverse relationship |
| 12 | | between interest rates and the equity risk premium. The Company Witnesses assert |
| 13 | | that one must perform a simple regression to estimate the equity risk premium and that |
| 14 | | an arithmetic average may understate the risk premium. |
| 15 | | • With regard to my CAPM, the Company Witnesses disagree with: (1) my use of historic |
| 16 | | average Value Line Betas; (2) my failure to account for re-levered Betas from the S&P |
| 17 | | Beta Generator Model; and (3) my use of a projected risk-free rate of 3.7%. |
| 18 | A. | Sustainable Growth DCF Model |
| 19 20 21 | Q. | WHAT IS YOUR RESPONSE TO THE CONCERNS WITH YOUR SUSTAINABLE GROWTH DCF MODEL AS EXPRESSED BY THE COMPANY WITNESSES? |
| 22 | A. | As an initial matter, no one model is perfect, and at times can be more or less accurate than |
| 23 | | other models depending on various factors, such as economic conditions. For this reason |
| 24 | | alone, it is important to perform a thorough analysis, and apply informed, reasoned |

judgment in the interpretation of the results.

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In addition, using the retention growth methodology is a recognized reasonable method for estimating sustainable dividend growth and should not be ignored.

As noted by the CFA Institute curriculum text:

We define the sustainable growth rate as the rate of dividend (and earnings) growth that can be sustained for a given level of return on equity, assuming that the capital structure is constant through time and that additional common stock is not issued. The reason for studying this concept is that it can help in estimating the stable growth rate in a Gordon growth model valuation, or the mature growth rate in a multistage DDM in which the Gordon growth formula is used to find the terminal value of the stock.

The expression to calculate the sustainable growth rate is $g = b \times ROE^{1/2}$

In my sustainable growth rate methodology, I measured growth through internal means and external means in deriving an outlook for cash flow growth to the proxy companies over time. This cash flow outlook was both created by retaining earnings for reinvestment in new plant, growing rate base, and growing earnings and dividend-paying abilities. The sustainable DCF model develops a growth rate estimate for future cash flows based on dividend growth through retaining earnings and the expectations that growth can be enhanced by the utility selling new stock to the public at prices in excess of book value, which will create incremental growth in book value per share and enhances outlooks for earnings and dividend growth.

With regard to the limited sources of estimates, I generally agree with the concern that relying one a single source of growth rates. However, I am unaware of any other data provider that provides projections for all the components used within the model. The use of Value Line data in this model serves as a suitable complement to the consensus projections used elsewhere in my DCF analyses. This particular concern is trivial and need

¹ CFA Program Curriculum, 2014, Level II, Volume 4, "Dividend Discount Valuation," at 264.

1 not be addressed further.

None of the Company Witnesses' arguments effectively negate the use of the model.

4 B. Risk Premium Method

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A.

5 Q. WHAT IS YOUR RESPONSE TO THE CONCERNS WITH YOUR RISK PREMIUM METHOD AS EXPRESSED BY THE COMPANY WITNESSES?

I find it hard to see how the Company Witnesses can assert I have not recognized an inverse relationship between the two variables considering the equity risk premiums I relied on are higher than the average equity risk premium while, inversely, the interest rates used to estimate the Risk Premium-derived cost of equity are below average. For example, as shown on my AWEC-CUB/111 filed with my Direct Testimony, the average long-term Treasury yield and allowed equity risk premium since 1986 is 5.19% and 5.71%, respectively. As I explain in my Direct Testimony, I relied on a projected Treasury yield of 3.70% (below the long-term average) and an allowed equity risk premium of 6.04% (above the long-term average). We just happen to use different methods of capturing the relationship. I continue to support my risk premium methodology.

17 Q. DO YOU HAVE CONCERNS WITH THE SIMPLE LINEAR REGRESSION METHOD FOR ESTIMATING THE EQUITY RISK PREMIUM?

A. Yes. Equity risk premiums can move based on changes in market conditions that can impact both equity returns and bond returns in a like manner. In addition, there are several factors that are not explicitly accounted for in a simple regression analysis that likely have some influence on the equity risk premium including, but not limited to, regulatory regime, yield spreads, rate affordability, company management, ESG factors, settlement versus litigated outcomes, alternative regulation mechanisms, and business cycles. This simple

- 1 regression analysis of equity risk premiums and interest rates ignores other relevant market
- 2 factors in describing the current market-required equity risk premium.
- 3 Q. HAVE YOU REVIEWED WHAT THE YEAR-TO-DATE EQUITY RISK 4 PREMIUM IS FOR ELECTRIC UTILITY ROES OVER LONG-TERM 5 TREASURY BOND YIELDS?
- Yes, I have. Through August 11, 2023, the year-to-date average authorized ROE for regulated electric utilities is 9.62%, while the year-to-date average 30-year Treasury yield is 3.83%. As such, the year-to-date average equity risk premium over 30-year Treasury yields is 5.79%, or 25 basis points lower than my recommended 6.04% equity risk premium over 30-year Treasury yields. In other words, my equity risk premium potentially overstates the cost of equity given current data. I continue to believe my methods and results are reasonable, and the Company Witnesses' criticisms should be ignored.

13 **C.** <u>CAPM</u>

- 14 Q. WHAT IS YOUR RESPONSE TO THE CONCERNS WITH YOUR CAPM AS EXPRESSED BY THE COMPANY WITNESSES?
- 16 A. As an initial matter, prior to the pandemic, electric utility betas had steadily declined over 17 the 2014-2019 period. It was not until the onset of the pandemic that betas increased. In 18 fact, electric utility betas declined from about 0.75 in 2014 to 0.58 in early 2020. As I 19 explained in my Direct Testimony, currently published beta estimates from Value Line are 20 significantly above historical standards and cannot reasonably be expected to be as high in 21 the future as they are now. The purpose of measuring the historical betas was to provide context on how out-of-line current betas are with what is normal, and to get a more 22 23 normalized estimate of the beta component for my CAPM analysis. Clearly, betas for 24 electric utilities spiked with the emergence of COVID-19 in early 2020, an anomalous 25 event that is not expected to continue. Because Value Line's betas are measured over a

five-year historical period, the volatility caused by COVID-19 in early 2020 will be present in *Value Line* betas for another three years even though that volatility caused by COVID-19 is not expected going forward. In other words, "current" *Value Line* betas will be impacted by an anomalous historical event for approximately two more years and not reflective of existing or expected conditions. As such, historical betas provide a useful perspective.

The Company Witnesses' assertion that I failed to adhere to the instructions provided in the S&P Beta Generator Model workbook are completely unfounded. The adjusted betas I relied on from the S&P workbook are the recommended adjusted betas as calculated by S&P and are based on the existing leverage of each company. They are adjusted using the Vasicek-method, and as explained by S&P (and cited in my Direct testimony), the Vasicek method of adjustment is superior to that of the Blume adjustment method employed by *Value Line*.

In addition, while S&P does provide an unlevered beta for each company, it is not re-levered in any capacity. Notably, the proxy group's average unlevered beta as calculated by the S&P model is 0.45. This is in stark comparison to the average unlevered beta of 0.60 for the proxy group as estimated by the Company Witnesses in their Direct Testimony. While the method of calculating an unlevered beta is a similar process, the results are drastically different.

Finally, the assertion that I understated the CAPM by relying on a projected risk-free rate of 3.70% that was too low is trivial, at best. As an initial matter, 3.70% was the **consensus** projected interest rate at the time of my study. The current consensus projected 30-year Treasury yield for six quarters out has increased from 3.7% to 3.8%, which still

| 1 | | marks a 60 basis point decrease from spot yields as of August 17, 2023. In any event, even |
|--|----|---|
| 2 | | if I were to revise my CAPM analysis using a 3.8% projected yield instead of the 3.7%, the |
| 3 | | impact on the results would have been in the range of 0.01% to 0.03% (one to three basis |
| 4 | | points). |
| 5 6 7 | Q. | IS THERE FINANCIAL LITERATURE DISCUSSING THE VASICEK METHOD OF ADJUSTING BETA IN COMPARISON TO THE BLUME METHOD EMPLOYED BY <i>VALUE LINE</i> ? |
| 8 | A. | Yes. In an article titled "An Examination of Blume and Vasicek Betas" published in the |
| 9 | | journal The Financial Review, Martin Lally discusses the merits of both methods of |
| 10 | | adjusting beta. An observation made by Lally as it relates to the utility industry is as |
| 11 | | follows: |
| 12 13 14 15 16 17 18 19 20 21 22 23 | | A dramatic example of this is in U.S. electric utilities. A typical such firm has an estimated beta (unadjusted) of around 0.4 (Value Line, 1993). By virtue of being typical, the Vasicek estimate, with prior corresponding to this industry, will also be 0.4. By contrast, Blume adjusts the 0.4 to 0.6 [i.e. 0.33 + 0.67(0.4)]. The result is a dramatic overestimate by Blume, because a singularly relevant fact is ignored, i.e., membership of an industry whose average estimated, and therefore presumably also true, beta is well below one. Given that these firms have output prices that are set so as to recover costs, including the cost of equity, and they have substantial equity investment, then the implications of using Blume betas (i.e., not partitioning into industries) for measuring costs of equity are particularly severe. ² The Company Witnesses' concerns with Vasicek-adjusted betas should be disregarded. |
| ∠ -1 | | disregarded. |
| 25 | D. | Company Risk |
| 26 27 28 | Q. | THE COMPANY WITNESSES MAKE REFERENCE TO THE COMPANY'S RELATIVE SIZE TO THE PROXY GROUP AS EVIDENCE THAT THE COMPANY IS RISKIER. DO YOU AGREE? |

The Financial Review, Vol. 33 (1998) at pages 183-198, "An Examination of Blume and Vasicek Betas," Martin Lally (emphasis added).

- 1 Α. No, I do not believe the Company is riskier based on its relative size, nor do I believe that 2 it is appropriate to award the Company a higher ROE for it. In fact, there is empirical 3 evidence which concludes that, while size premiums are present in industrial companies, such a size premium is not present in utility companies, nor are they appropriate to include 4 5 in valuing utilities. $\frac{3}{}$
- 6 O. THE COMPANY WITNESSES MAKE REFERENCE TO THE COMPANY'S 7 SMALL GEOGRAPHIC FOOTPRINT RELATIVE TO THE PROXY GROUP AS EVIDENCE THAT THE COMPANY IS RISKIER. DO YOU AGREE? 8
- 9 Α. No, I do not. Again, as I explained in my Direct Testimony, modern portfolio theory does 10 not allow for compensation of business risks that can be diversified away through carefully crafted, well diversified portfolios. In addition, ratings agencies are aware of, and include 11 as part of their assessments of the Company, PGE's size and geographic footprint. 4/ 12

13 DOES THIS CONCLUDE YOUR REBUTTAL TESTIMONY? 0.

14 Α. Yes, it does.

<u>3</u>/

Wong, Annie, 1993, Utility stocks and the size effect: An empirical analysis, Journal of the Midwest Finance Association, 95-101.

^{4/} See AWEC-CUB/100 at 23, lines 10-28. Notably, PGE's BBB+ rating from S&P is identical to those of the proxy group.