Exhibit No. ___T (KLE-1T)
Dockets UE-111048/UG-111049
Witness: Kenneth L. Elgin

BEFORE THE WASHINGTON STATE UTILITIES AND TRANSPORTATION COMMISSION

WASHINGTON UTILITIES AND TRANSPORTATION COMMISSION, **Complainant,** **v.** **PUGET SOUND ENERGY, INC.,** **Respondent.**	**DOCKET UE-111048** **DOCKET UG-111049** ***(Consolidated)***

TESTIMONY OF

Kenneth L. Elgin

STAFF OF WASHINGTON UTILITIES AND TRANSPORTATION COMMISSION

Fair Rate of Return
Attrition

December 7, 2011

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I. INTRODUCTION

Q. Please state your name and business address.

A. My name is Kenneth L. Elgin. My business address is the Richard Hemstad Building, 1300 S Evergreen Park Drive SW, Olympia, Washington 98504.

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

A. I am employed by the Washington Utilities and Transportation Commission ("Commission") as a senior financial analyst.

Q. Please summarize your educational background and professional experience.

A. I earned a B.A. degree from the University of Puget Sound in 1974 and an M.B.A. degree from Washington State University in 1980. I have been employed by the Commission in several different capacities since 1985. My experience is more fully described in my Exhibit No. ___(KLE-2).

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

A. The purpose of my testimony is to provide the Commission with a recommendation for the fair rate of return (cost of capital) for Puget Sound Energy, Inc. ("PSE" or "the Company"). I also respond to the analysis and recommendations of the Company's cost of capital witnesses, Mr. Donald Gaines and Dr. Charles Olson, including their testimony that rate relief in this proceeding should consider that PSE has experienced attrition because its actual (per books) earned returns on equity for

PSE's combined electric and natural gas operations have been below its authorized returns on equity.

II. SUMMARY OF TESTIMONY

Q. What do you recommend for the overall cost of capital for the regulated operations of PSE?

A. The overall cost of capital that I recommend for PSE's regulated operations is 7.59 percent. The following table shows the capital structure and cost rates that produce this overall rate of return:

Component	Percent	Cost	*Weighted Cost*
Long-term debt	50.00	6.22%	3.11%
Short-term debt	4.00	2.68%	0.11%
Common equity	46.00	9.50%	4.37%
Cost of Capital	100.00		7.59%

Q. The Company proposes an overall cost of capital of 8.42 percent. Please summarize the differences between the Staff and Company proposals.

A. There are four differences between my 7.59 percent cost of capital and the Company's proposed 8.42 percent cost of capital: 1) I estimate a fair return on equity ("ROE") of 9.50 percent compared to the Company's proposed 10.80 percent; 2) I recommend a capital structure with a 46 percent common equity ratio compared to the 48 percent proposed by the Company; 3) I recommend a *pro forma* cost of

long-term debt of 6.22 percent compared to the Company's proposed 6.37 percent; and 4) my cost of short-term debt is 2.68 percent compared to the company's 4.62 percent.

Q. Please summarize your testimony regarding the issue of attrition.

A. The Company's comparison of actual (per books) earned returns on equity to authorized returns on equity does not meet the necessary burden to prove and measure attrition, as established by Commission precedent. Nor has PSE specified any specific attrition adjustment, as required by Commission rule.[1] Thus, the Commission should reject the Company's claim of attrition.

Nonetheless, the Company's ongoing expenditures for infrastructure additions and replacements warrant an appropriate regulatory response to address regulatory lag. I present an option for PSE to address this issue through an expedited rate making process that will enable the Company to receive timely rate relief. The approach I present is consistent with the Commission's current practice and policy to set rates on an historical test period with proper normalizing adjustments.[2]

III. FAIR RATE OF RETURN

A. Background

Q. What primary steps are involved in estimating a fair rate of return for any regulated utility?

[1] WAC 580-07-510(4)(i).
[2] WAC 580-07-510(3)(e).

A. The process of estimating a utility's overall cost of capital involves three distinct steps. The first step is to determine the proper capital structure to finance the operations of the utility. Next, the analyst must estimate of the cost of common equity. The final step is to calculate the cost of preferred equity and debt for the rate year, including the cost of both long-term and short-term debt.

Q. Please explain the context of the Commission's equity cost of capital determination for PSE in this proceeding.

A. This proceeding involves setting rates for PSE's regulated electric and natural gas utility operations in the State of Washington. Since the acquisition of Puget Energy by the Macquarie Investor Consortium, Puget Energy's common stock is no longer publicly traded. Therefore, the cost of equity analysis must now focus on market information (stock prices) of a set of comparable (proxy) companies. Based upon a Discounted Cash Flow ("DCF") analysis of a comparable group of companies, I estimate a fair return to the Company's owners for their investment in PSE's regulated utility operations. PSE's witness, Dr. Olson and I both agree on this point, but we disagree on the companies that should be in the proxy group.

1. Economic and Legal Principles

Q. What is the primary principle underlying the Commission's determination of the fair rate of return for a regulated utility?

A. Consistent with both economic and legal theory, the primary principle is for the Commission to set rates that provide a utility an opportunity to recover its costs, which include a fair return on and of the capital investors provide to fund the long-lived assets necessary to provide utility services.[3] Traditionally, the Commission has implemented this principle using what is commonly referred to as the rate base - rate of return method. Under this method, the Commission establishes in a rate case the relationship between revenues, expenses, and return on rate base, and determines rates to provide the utility an opportunity to recover a fair return on the assets, or rate base, the utility owns in order to provide utility service to the public. This method presumes the utility is efficient and economically managed.

This principle is reflected in two significant decisions by the United States Supreme Court. The first decision is *Bluefield Water Works and Improvement Co. v. Public Service Commission of West Virginia*, 262 U.S. 679, 692 (1923). This decision established the following principles to guide the determination of a fair rate of return in the rate setting process: comparable earnings for comparable risks, maintaining financial integrity of the regulated firm, the ability of the firm to raise capital on reasonable terms, and the expectation that the utility is operated efficiently.

The second decision is *Federal Power Commission v. Hope Natural Gas Co.*, 320 U.S. 591, 603 (1942). In that decision, the Court affirmed the principles of *Bluefield,* and further recognized that regulators should balance consumer and owner interests in determining a fair rate of return.

[3] See RCW 80.28.010, RCW 80.04.250 and RCW 80.04.350.

Q. How do these principles guide your analysis in this case?

A. In applying these principles, I evaluate both current capital markets and several important financial metrics from publicly available financial information of the companies in a proxy group to estimate investor requirements for committing equity capital to PSE.

For determining the costs to PSE, the cost of preferred equity and debt is relatively straightforward based upon contractual commitments in the underlying securities. However, there is no precise formula for determining a rate of return on common equity ("ROE"). Consequently, there is uncertainty inherent in the determination of the cost of common equity capital.

2. Methods

Q. What method for determining a fair ROE has the Commission traditionally relied on in a rate case?

A. Based on my review of the Commission's orders on rate of return over the last forty plus years, the Commission has consistently relied upon the Discounted Cash Flow ("DCF") method to determine a fair ROE for owners of utility property, though in more recent cases the Commission has considered the results of other methods as a "check."[4]

[4] *See WUTC v. Pacific Power & Light Company,* Docket UE-100749, Order 07 at ¶¶ 33-34 (March 25, 2011).

Q. Should the Commission use the DCF method in this case?

A. Yes. I strongly support the Commission's policy and practice to use the DCF analysis as the primary basis to determine a fair return on equity for utility companies subject to its jurisdiction. The DCF method provides the most reliable indicator of investors' rate of return requirements consistent with the legal principles I just discussed. Equity investors are entitled to the firm's profits. The DCF model reflects this concept by stating that the price an investor will pay for a share of stock represents the expected cash flows from ownership discounted to the present value. The discount rate is the fair rate of return or the cost of equity capital. The price of a share of common stock is the present value of those cash flows. Therefore, the cost of equity is estimated by examining the prices of common stock trading in highly competitive capital markets.

Q. What methods do you use to determine the cost of debt and preferred equity?

A. The cost of debt calculation is based on the contractual terms and conditions of outstanding debt issuances. Moreover, the cost of debt includes an evaluation of the actual debt service requirements, including expenses, and then adjusts for known and measurable changes in the rate year. A proper *pro forma* cost of debt calculation is necessary to protect both consumer and utility interests in order to accurately reflect the cost of debt in the rate year. This concept of "financial attrition"[5] and using a rate year cost of debt, including estimates of future tranches, was first accepted by the Commission in 1981 for Puget Sound Power & Light Company ("Puget") to

[5] In Cause No. U-81-41 the Commission made a distinction between attrition and financial attrition. The latter refinement was to address capital turnover as utilities retired low cost debt and incurring significantly higher debt costs due to inflation.

capture the effects of inflation on rate year interest costs.[6] In addition, if a company is not capitalized efficiently, the proper cost of debt should be examined to ensure ratepayers are not adversely affected by a capital structure that is not safe and economical.

PSE no longer has any preferred equity in its capital structure, so there is no calculation for the cost of preferred equity.

3. General Economic Conditions

Q. What economic and financial conditions are relevant to your analysis of PSE's cost of capital?

A. In general, I rely upon current economic and financial conditions. Current conditions shape investor expectations and are reflected in current security prices. This is important because of what is known as the "efficient market" hypothesis, which states that current security prices reflect all that is known about any particular security. Indeed, most prices for securities reflect what investors currently expect and know about a particular company.

In addition, my analysis is influenced by the general observation that the cost of capital has declined significantly in the decade following the inflationary period of the 1980's. Cost of capital declined again, although more modestly, after 2000, including a decline after the fallout from the 2008 financial crisis. I would also note, particularly in the last decade, the impact of technology on the cost of capital. Technology now enables capital to flow freely between different investment

[6] *WUTC v. Puget Sound Power & Light Co.*, Cause No. U-81-41, Second Supp. Order at 11 (March 12, 1982).

opportunities in global markets at little cost. The net effect of this efficiency gain has been to further reduce the cost of capital. In this regard, technology has also fully integrated equity markets around the world, which has contributed to the lower cost of capital for all firms.

Finally, capital markets have similarly recovered from the financial crisis that began in the third quarter 2008 despite recent events and renewed volatility in the market during the second quarter of 2010. In a November 4, 2011 summary report for the electric industry, *Value Line* noted that the electric industry sector has outperformed the broader market averages during this recent market volatility. *Value Line* reports that the equity sector was down 12 percent in 2011, but the utility sector was up 2 percent that same year.

The performance of utility stocks as reported by *Value Line* are consistent with conclusions reached by the Commission in the last two general rate case orders since the 2008/2009 financial crisis where cost of capital was a contested issue. In each instance, the Commission found that the fallout from the financial turmoil of 2008/2009 is over, and capital markets are exhibiting normal patterns of risk/return relationships. In the first case the Commission stated:

> Our record also shows that the capital markets have substantially recovered from the distortions caused by the financial crisis and now again reflect cost characteristics similar to, if not lower than, those extant before the onset of the crisis.[7]

[7] *WUTC, v. Puget Sound Energy, Inc.,* Dockets UE-090704 and UG-090705, Order 11 at ¶ 281 (April 10, 2010). *See also WUTC v. Pacific Power & Light Company,* Docket UE-100749, Order 06 at ¶ 92 (March 25, 2011).

Q. What is your general conclusion regarding the impact of current financial conditions on investor expectations?

A. My general conclusion is that current macro-economic climate will continue its slow recovery and that monetary policies designed to stimulate economic activity will continue to have downward pressure on long-term interest rates and the cost of equity capital. As a result, capital costs will remain low for an extended period of time, well into the 2012 rate year. Furthermore, it is my belief that the overall opportunity costs for investors have declined, causing investors to reset future expectations and expect lower returns in investments of all sorts.

Q. What specific conclusions should the Commission draw from the current economic and financial conditions?

A. The Commission should conclude that recent economic and financial circumstances will continue to keep capital costs low. Specifically, overall economic and financial conditions have investors expecting lower returns for their investments. Finally, the data indicate that utility stocks are low risk investments and the return on equity for PSE's owners should reflect this fact.

4. PSE's Operations and Risks

Q. Please summarize PSE and its operations.

A. PSE is the operating company of Puget Energy providing regulated utility services in Washington. As an electric company it owns distribution, transmission and

generation assets for the sale of electric energy to customers in the Puget Sound region. It is commonly referred to as a "fully integrated electric utility". Its natural gas operations are commonly referred to as a "local distribution company". It buys natural gas in competitive markets, contracts for interstate pipeline services under FERC approved tariffs, and then distributes this gas supply to its customers over the its local distribution facilities. In addition, its natural gas business is insulated from the risks of purchasing natural gas due to the Commission's policies with respect to the rate treatment of those costs.

In my judgment, PSE's regulated electric and natural gas operations are a "lower risk" business than utilities with unregulated operations or other holding companies that own utilities but have significant investments in unregulated operations. This further emphasizes the need to use a proxy group that captures the salient features of the Company's regulated operations.

Q. Is there any objective evidence of PSE's low business risk?

A. Yes. Standard & Poor ("S&P"), as part of its credit rating process, qualifies the business risks of the regulated utilities it analyzes. S&P rates PSE's business risk profile as "Excellent". Exhibit No.___(KLE-3) is the most recent S&P report for PSE dated November 28, 2011.

B. Capital Structure

Q. Please explain what is meant by the term "capital structure".

A. Capital structure is the evaluation of the various sources of capital provided by investors to fund the long-lived assets necessary to deliver utility services. The traditional sources are common equity, preferred equity, and debt. The utility's capital structure reflects the proportionate amount of each source of capital supporting those assets serving the public in Washington.

Consistent with financial theory, the capital structure should achieve the lowest overall cost of capital. By achieving the lowest overall cost of capital management meets its obligation to shareholders to maximize the value of its stock. In turn, the firm is able to keep prices reasonable for the benefit of customers. Regulation, as a surrogate for competition, ensures through the evaluation of the proposed capital structure that management achieves this objective. Like the determination of the cost rates of equity and debt capital, determining the appropriate capital structure for ratemaking purposes relies upon a combination of analysis and informed judgment.

Q. Why is capital structure important in determining a fair rate of return for a regulated utility?

A. Capital structure, and particularly the equity ratio, materially impacts the price customers pay for service. Due to the relative difference between the cost of equity and the cost of debt, a capital structure with relatively more debt and less equity will result in a lower overall cost of capital.

This relative difference between the cost of equity and the cost of debt capital is further exacerbated by the impact of Federal income taxes in the determination of

a utility's revenue requirement. Each dollar of revenue necessary to compensate owners must be supported by revenues to pay Federal income taxes. A utility may deduct its interest expense for Federal income tax purposes, causing an even further reduction in the cost to customers and the utility.

Put another way, consistent with modern financial theory, a firm with stable cash flows, particularly those of a regulated utility, should take advantage of its stable cash flows and use financial leverage (debt) to maximize shareholder value. As a result of using financial leverage to enhance shareholder value, customers benefit from both lower capital costs and the Federal income tax benefit of the interest deduction. The question is the degree of financial leverage that should be employed. The proper capital structure is paramount to the interests of both shareholders and customers.

Q. What is the Commission's policy on capital structure for ratemaking purposes?

A. The Commission policy for determining an appropriate capital structure is to balance the competing interests of safety and economy. The Commission affirmed this policy most recently in a rate case in which cost of capital and capital structure were contested.[8] This policy is consistent with a fundamental principle of finance: a properly balanced capital structure ensures the Company efficiently finances its long-lived assets dedicated to public service to achieve the lowest possible cost. I employ this policy in my analysis of the appropriate capital structure for PSE for ratemaking purposes.

[8] *WUTC v. PacifiCorp, d/b/a Pacific Power & Light Co.*, Docket UE-110749, Order 07 at ¶10 (May 12, 2011).

Q. Are there other facts the Commission should consider regarding the capital structure for PSE?

A. Yes. The critical factor in the Commission's evaluation of an appropriate capital structure is the fact that PSE is a privately held company. PSE's capital structure is controlled by its owners whose objective is to maximize their returns at the holding company level. As a result, the owners could manipulate the capital structure of PSE to that end. This is achieved through a double leverage effect. Therefore, the Commission must ensure PSE's regulated operations are properly capitalized since the owners' incentive is to capitalize utility operations with too much equity.

Q. Please explain how double leverage maximizes the equity investment of PSE's owners.

A. The owners issue debt at the holding company to finance their equity investment in the operating company. That debt is issued at a lower cost at the holding company level than the return on equity and associated income taxes recovered by the Company from customers for ratemaking purposes. As a result, the owners are able to maximize the returns of their actual equity investment at the holding company level. The ownership structure requires the Commission at all times to carefully consider how PSE's new owners determine to finance its utility operations.

1. Equity Ratio

Q. What equity ratio is PSE requesting in this proceeding for its regulated operations?

A. The Company requests a capital structure containing 48.0 percent common equity based upon a calculation of the average of monthly average common equity ratio during 2010.[9]

Q. Does a 48 percent equity ratio produce a reasonable capital structure for the Commission to develop PSE's cost of capital in this proceeding?

A. No. It contains too much equity, which places excessive costs on ratepayers.

Q. What capital structure should the Commission use to develop PSE's cost of capital in this proceeding?

A. I recommend an equity ratio of 46.0 percent. It is a reasonable capital structure that appropriately balances the interests of safety and economy.

Q. What factors did you consider in evaluating a reasonable equity ratio for ratemaking purposes in this case?

A. The most appropriate starting point is PSE's actual capital structure for 2010, the most recent fiscal year. As of December 31, 2010, PSE's actual equity ratio was 46.5 percent, and the corresponding debt ratio was 53.5 percent, including 3.9

[9] Exhibit No. __ (DEG-4), page 2, line 17, column (O).

percent short-term debt.[10] My recommended 46 percent equity ratio is consistent with the actual 2010 year-end equity ratio of PSE.

Mr. Gaines points out correctly that the equity ratio increased to 50 percent as a result of closing the sale of PSE to the Macquarie Investor Consortium. However, the equity ratio has subsequently declined due to additional debt PSE issued since the sale.[11]

Moreover, PSE issued additional debt in 2011, as noted by Mr. Gaines.[12] This issuance of additional debt will cause the equity ratio to decrease further absent any further equity infusion from Puget Energy. If I calculate PSE's actual equity ratio based upon its September 30, 2011 balance sheet and include the effect of the new debt issued in November 2011, the actual equity ratio is 44.5 percent.

Furthermore, the Company's response to Staff Data Request No. 11 shows that my recommended equity ratio is consistent with PSE's financial forecast. My recommended equity ratio of 46.0 percent, therefore, is consistent with PSE's actual equity ratio, its financing plans for the rate year and, thus, the equity ratio that is likely to prevail during the rate year.

Q. What other evidence did you consider in evaluating a reasonable equity ratio for ratemaking purposes in this case?

A. I considered summary information for the regulated electric and natural gas industry in this country. First, I reviewed data reported by AUS Utility Reports that showed

[10] Exhibit No. __ (DEG-4), page 2, lines 13-18, column (N).
[11] Exhibit No. __ (DEG-4), page 2, line 17, columns (B)-(N) and page 6 lines, 23-24.
[12] Exhibit No. __ (DEG-4), page 2, line 28.

the following common equity ratios for 2010: 1) electric companies were capitalized with 46.40 percent common equity; and 2) combination electric/gas companies were capitalized with 46.0 percent common equity.

Next, I evaluated capital structure information reported by SNL. It reports the equity ratio for a large group (45) of utility parent companies with significant utility operations. The equity ratio for these parent companies in 2010 is 44.5 percent. The median equity ratio for this group is 43.6 percent. The summary data for these companies all include short-term debt in the calculation of the ratios.

Q. Do you have any other comments with respect to the data reported by AUS and SLN?

A. Yes. Using the data reported by AUS and SLN, I calculated the capital structure for the companies in my proxy group that I use for estimating PSE's return on equity. For the period ending 2010, the equity ratio for this group is 44.60 and 44.40 percent, respectively.[13] I discuss my rationale for selecting this proxy group in the Cost of Equity section of my testimony.

Q. What other factors did you consider in developing your 46 percent equity ratio recommendation?

A. I considered credit rating information provided by S&P with respect to the electric and combination companies it follows. S&P indicates the majority of electric companies in this country are rated "BBB". In early 2011, S&P issued ratings for

[13] In this calculation, I removed the equity ratio for CMS because its equity ratio as reported by both services is 27.3 percent.

183 companies and 124 of those utilities were rated BBB.[14] Exhibit No. ___(KLE-4) is a copy of S&P's September 30, 2011 Global Credit Portal RatingsDirect Industry Report Card. The document summarized the credit outlook for the electric industry (including combination companies such as PSE), showing overall credit profile of the industry.

Q. What conclusion do you reach from this aggregate data?

A. I conclude that PSE's actual equity ratio in the mid 40 percent range, which supports its "BBB" corporate credit rating (unsecured) and an "A-" secured rating (first mortgage bonds), is reasonable.

Q. What other information is relevant in determining an appropriate amount of equity for PSE's operations?

A. In the last PSE rate case, all issues involving rate of return were fully contested, including capital structure. PSE advocated for a 48.0 percent equity ratio, the same equity ratio it advocates for now. The Commission determined that a 46 percent equity ratio is appropriate.[15]

In this regard, it is necessary to correct an error in Mr. Gaines' direct testimony. He states that "PSE's current 46 percent equity ratio, approved by the Commission in PSE's 2009 general rate case, is a result of a negotiated settlement agreement that occurred prior to the acquisition of Puget Energy by the investor

[14] S&P RatingsDirect (January 24, 2011). S&P has three different ratings within the BBB category: BBB-, BBB and BBB+.
[15] *WUTC, v. Puget Sound Energy, Inc.*, Dockets UE-090704 and UG-090705, Order 11 at ¶ 283 (April 2, 2010).

consortium."[16] The testimony is incorrect. The current 46.0 percent equity ratio was not the result of a settlement.

Q. Why is this an important point to correct?

A. The issue was fully litigated and the Commission made a determination regarding the appropriate amount of equity after the close of the sale of PSE to the Macquarie Investor Consortium. In that case, the new owners re-capitalized PSE by injecting significant new equity into PSE's capital structure and redeeming an outstanding debt issue causing the equity ratio to increase dramatically at closing of the sale. The Company advocated for a higher equity ratio based upon the initial recapitalization of PSE by its new owners, but the Commission rejected that proposal and determined that 46.0 percent is reasonable. It is still a reasonable equity ratio for PSE.

Q. What is your recommendation for PSE equity ratio?

A. The Commission should use a common equity ratio of 46.0 percent for setting rates in this proceeding. It should reject the Company's proposed 48.0 percent common equity ratio.

Q. Is a 46.0 percent equity ratio for PSE consistent with the Commission's policy that a capital structure must balance economy and safety?

A. Yes. A 46.0 percent common equity is consistent with the estimate of the actual capital structure financing utility operations. It is consistent with PSE's financial projections. It is similar to the actual ratios used by other companies, as compiled by

[16] Exhibit No. __ (DEG-1T) at page 6, lines 3-4.

AUS and SNL. It is a capital structure that is consistent with the *Bluefield* and *Hope* standards I discussed previously. A 46 percent equity ratio will support a solid BBB corporate credit rating and an A- secured rating for the Company. Finally, since a 46 percent equity ratio is consistent with the data from my proxy group and it is sufficient to support the credit ratings I just described, it is "market tested" and safe.

Q. Did you consider the cost benefit analysis prepared by Mr. Gaines in support of PSE's proposed capital structure containing 48.0 percent common equity?

A. Yes. I analyzed his presentation with respect to the benefits of a higher credit rating and the costs to realize those benefits. Mr. Gaines claims a net present value of $33 million in interest savings for customers from higher bond ratings over a thirty year period, which is the life of the debt PSE issued most recently.[17] Mr. Gaines asserts that these benefits exceed the incremental $12 million of costs to achieve the benefits.[18]

Q. Do you agree with his analysis?

A. No. First, his calculation does not account for the fact that interest payments are tax deductible. Adjusting for Federal income taxes, the benefits are reduced to $22 million. Exhibit No.___ (KLE-5) is PSE's response to Staff Data Request No. 8 showing the effect of income tax on the cost to ratepayers.

[17] Exhibit No. __ (DEG-1T), page 8, lines 17-18 and Exhibit No. __ (DEG-3).
[18] Exhibit No. __ (DEG-1T), page 9, lines 16-18.

Q. What other flaws exist in Mr. Gaines cost-benefit analysis?

A. The $33 million pre-tax benefits he claims will result from a 48 percent equity ratio are realized over a 30-year life of the outstanding securities, but the costs to achieve those asserted benefits reflect only a single year.

Q. How would you correct the analysis offered by Mr. Gaines?

A. I would calculate the cost of the higher equity ratio over a similar 30-year period. First, I re-calculate the Company's revenue deficiency based upon its direct case by reducing the equity ratio from 48.0 to 46.0 percent. The total annual revenue impact of this change in equity ratio for PSE's gas and electric customers is $13.2 million. Next, I calculate the present value of the $13.2 million annual cost of the higher equity ratio as an annuity over a 30 year period. At the Company's requested 10.80 percent return on equity, the cost to customers is $116.6 million. Therefore, comparing the costs and benefits over a similar 30 year timeline produces a cost benefit ratio of 5:1.

Alternatively, if I compare the annual benefits of the added 2 percent equity to the annual costs, I get similar results. The annual benefits due to interest savings are $2.70 million[19] with an annual cost of $13.2 million: a 5:1 cost benefit ratio.

Q. What do you conclude about the cost of higher equity ratios supporting higher bond ratings?

A. Based upon the ratio of costs to benefits, raising the equity ratio from 46 percent to 48 percent to achieve a higher bond rating is too costly for ratepayers. In contrast, an

[19] Exhibit No. __ (DEG-3), page 1, column labeled "Est'd Annual Interest Savings".

equity ratio of 46 percent that is consistent with a corporate credit rating of BBB is appropriate. A BBB rating supported by a 46 percent equity ratio provides sufficient safety with the appropriate balance of cost to customers, and it is consistent with the Commission's policy on capital structure to balance economy and safety. A rating of BBB enables PSE to finance on reasonable terms and will ensure a financially viable utility, all of which is consistent with the standards of *Bluefield* and *Hope*.

2. Short-Term Debt Ratio

Q. Does the Company include short-term debt in its capital structure for ratemaking purposes?

A. Yes.

Q. What is a reasonable amount of short-term debt in a utility's capital structure?

A. I agree with Mr. Gaines' testimony that a reasonable level of short-term debt is "somewhere in the range of three to five percent of total capital."[20] It is prudent for a utility to use this amount of short-term debt to keep its capital costs low.

Q. Does PSE currently have short-term debt credit facilities?

A. Yes. It has access to $1.15 billion of short-term debt. $400 million is directly tied to fund the liquidity needs of the utility's operations, $400 million is dedicated to fund

[20] Exhibit No. __ (DEG -1T), page 18, lines 17-21.

capital expenditures, and $350 million support the Company's hedging activities for its market purchases of electricity and natural gas.[21]

Q. What amount of short-term debt does PSE propose to include in its capital structure for ratemaking purposes?

A. PSE includes 4.0 percent short-term debt in its capital structure. Mr. Gaines points out that PSE's total capitalization is $6.7 billion and 5 percent of that is $335 million, which is well within the $400 million facility for working capital needs.[22] Given the Company's construction requirements and the size of its credit facilities, it is prudent for PSE to use this low cost source of funds for managing its cost structure. PSE is to be commended for its efforts to manage its capital structure in this regard to maximize the benefit for ratepayers of using this source of low-cost capital.

Q. Do you accept the Company's proposal to include 4 percent short-term debt in the capital structure for ratemaking purposes?

A. Yes. Combining a 4 percent short-term debt ratio with my recommended 46 percent equity ratio, leaves a long-term debt ratio of 50 percent.

C. Cost of Common Equity

Q. How do you structure your analysis on the cost of common equity for PSE?

[21] Exhibit No. __ (DEG-1T), page 28, lines 9-16.
[22] Exhibit No. __ (DEG-1T), page 18, lines19-21.

A. As stated earlier in my testimony, I rely upon a Discounted Cash Flow ("DCF") analysis of a group of comparable or "proxy" companies to determine a cost of common equity for PSE's regulated utility operations. In this regard, Dr. Olson and I both agree. I then consider information based upon the Capital Asset Pricing Model ("CAPM") and the risk premium methodologies. I do not advocate the use of these latter methodologies. The analysis I provide responds to the Commission's desire to see these results as a "check" of the DCF estimate.

1. Selection of the Proxy Group

Q. What proxy group of companies did you select for purposes of your cost of common equity analysis?

A. My proxy group consists of the following eight companies: Alliant, Avista, CMS, PGE, Great Plains, TECO, Westar and Wisconsin.

Q. Is this the same set of proxy companies Dr. Olson used?

A. No.

Q. Please explain the difference.

A. I started with Dr. Olson's proxy group containing nine utility companies. However, Dr. Olson used S&P bond ratings of BB to BBB+ as a screen, which caused him to include NV Energy, a BB rate company, in his group.[23] I disagree with this element of his screening process. A BB rating is a junk bond rating. Any utility with a junk

[23] Exhibit No. __ (CEO-1T), page 21, line 15.

bond rating adds excessive financial risk and creates some uncertainty for equity investors that a firm with an investment grade rating does not. Therefore, I removed NV Energy from the proxy group.

Next, I removed Pinnacle West since its operating utility, Arizona Public Service Company, is regulated on the basis of fair value by the Arizona Commission. I also removed OGE due to its excessive amount of unregulated revenue. OGE has about 32 percent of total revenue from unregulated operations while PSE has less than 1 percent of its revenue from unregulated operations.

Since Dr. Olson's considered all utilities rated BBB and those with revenues half that of PSE, I included Avista Corporation. Avista is a combination utility providing both electric and natural gas service with Washington as its principle jurisdiction. Therefore, it provides direct evidence of how investors view a combination company with a major portion of its electric and natural gas utility business under the Commission's jurisdiction.

Finally, I included Portland General Electric Company. It is a Pacific Northwest electric company facing similar regional issues with respect to infrastructure, resource acquisition, and competitive issues for its electric business. Therefore, I would expect investors to consider it comparable to PSE.

Q. Do you agree with Dr. Olson's testimony with respect to the number of companies that should be included in a proxy group for purposes of estimating the return on equity for PSE?

A. Yes. Dr. Olson states,

The nine companies in my group are comparable risk-wise to PSE and constitute the universe of such utilities. This group is not a sample but rather all of the utilities that are comparable to PSE. Thus it would be inaccurate to say this group of nine is too small a sample. It is not a sample at all; rather it is the universe of comparable companies.[24]

The purpose of selecting a comparable group is to select companies of comparable risk. It has nothing to do with sampling techniques and statistical reliability. It has to do with selecting the right set of comparable companies to estimate the cost of equity for PSE. My proxy group of companies meets that objective.

2. Discounted Cash Flow Analysis

Q. Please describe the Discounted Cash Flow model, and the underlying theory of that model in estimating the cost of equity.

A. The DCF model is based on the "dividend discount model" of financial theory. It relies upon the most fundamental principle of finance: the value (price) of any asset, in this case, a security, is the present value of all future cash flows.

If one makes some simplifying assumptions about a company's financial performance and cash flows, the following formula is the common equation used by analysts and accepted by regulatory bodies to estimate the cost of equity (K):

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

where: K = cost of equity
P = current price
D = expected dividend payment
g = constant rate of expected dividend growth

[24] Exhibit No. __ (CEO-1T), page 22, line 21 to page 23, line 2.

Essentially, this formula recognizes that the expected or required return of investors is estimated by considering two factors: expectations of the stock's dividend yield and the long-term constant growth in dividends per share.

This same model is used to price any stream of cash flows. For example, with a fixed income security, *i.e.* a bond, the dividend (D) is determined by the coupon rate (K) and the growth rate is zero. As expectations change for future interest rates, the price (P) of the bond adjusts to reflect new expectations in order to provide investors their required rate of return (K).

Q. Is the DCF method, or any other cost of common equity estimation method, a mechanical process?

A. No. Cost of common equity analysis is a process requiring considerable judgment in producing credible outcomes. It requires the analyst to consider relevant financial performance and make reasoned decisions based upon rational future expectations for investors within the context of DCF theory. Applying the DCF model is not a precise process that lends itself to results that are supported by precise calculations and mechanistic formulas. In this regard, my study relies upon published financial information, which, tempered by informed judgment and DCF theory, produces a range of investor expectations for the Commission to consider.

Q. Please explain how you used the DCF model to estimate PSE's cost of common equity.

A. The first step is to calculate the expected dividend yield for the comparable group and then consider appropriate data to estimate reasonable expectations for the long-term growth in dividends. As shown earlier, the sum of expected dividend yield and growth rate produces the estimate of an investor's required rate of return on common equity.

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

A. I evaluated the actual dividend paid by each firm within my proxy group and used a range of "expected" prices to calculate a dividend yield for the proxy group. This process accounts for the diversity of expectations investors have with respect to future dividends over time. This process also weighs the recent volatility in prices experienced this summer in the market. Finally, as a check, I compared my dividend yield calculation for both PSE and my proxy group to that provided by both *Value Line* and the indicated forward expected dividend yield presented by Morningstar.[25]

Q. What does your analysis show as a reasonable indication of the expected dividend yield for investors for the comparable group?

A. Based upon my estimate of a range of prices for a 3 month period from September 2011 through November 2011, the raw yield data indicates that the proxy group average dividend yield is 4.20. I also considered the lowest prices during that period as an estimate of the upper limit of what an investor can expect. The average for the proxy group using these prices is 4.50 percent.

[25] This data is compiled by Morningstar and published on the Yahoo Finance investor website.

Q. Did you analyze the most recent volatility in the market for estimating the dividend yield for the proxy group?

A. Yes. I considered the recent volatility of the market as late as November 23, 2011. The average dividend yield for the proxy group based upon market price during that narrow time frame is 4.25 percent.

Q. What does this market data suggest as a reasonable estimate for the dividend yield for the proxy group?

A. This data suggests a range of 4.25 to 4.50 percent.

Q. What does *Value Line* indicate as the average dividend yield for your proxy group?

A. *Value Line* provides two separate calculations of dividend yield for investors: 1) an indicated dividend yield; and 2) an expected forward dividend yield for each utility. The average indicated dividend yield for the proxy group is 4.50 percent and the average indicated forward dividend yield is 4.70 percent. This data is consistent with my point estimate using the raw data from the initial dividend yield analysis.

Q. What does Morningstar indicate as the estimate of expected dividend yield for firms in the comparable group?

A. Morningstar calculates dividend yield data which it calls the "Forward Dividend Yield". The average for the proxy group is 4.20 percent based upon data available to

investors during November 2011. This data suggests additional price appreciation and a lower expected dividend yield for the proxy group.

Q. What is your conclusion regarding a reasonable dividend yield for investors in your DCF analysis?

A. I conclude that a reasonable expected dividend yield is in the range of 4.25 to 4.50 percent. For the group, a reasonable point estimate is 4.50 percent.

Q. How does this data compare to the indicated dividend yield for Dr. Olson's proxy group?

A. Even though Dr. Olson's proxy group is not entirely the same as mine, his mean dividend yield is 4.14 percent for his proxy group.[26] The yield for his proxy group using stock prices in early November 2011 produces an average for his proxy group of 3.9 percent.

Q. Turning to dividend growth, please explain the context of this part of the DCF formula.

A. In contrast to dividend yield, an investor's expectation for future dividend growth is much more difficult to estimate. As a result, this part of the DCF method is more controversial because analysts use different metrics to support their conclusions.

It is important, however, to recognize that each investor has a unique perspective on the information used to form their growth expectations, and each investor individually considers and weighs all available alternative information in

[26] Exhibit No. ___ (CEO-3), page 1.

deriving their return expectations. This is supported by the fact that markets simultaneously reflect two distinct and complementary investment decisions: a decision to buy stock matched by another decision to sell that same stock. Because two investors reach different decisions at the same market price (one decides to sell; the other decides to buy), their expectations must differ.

As a result, no single indicator of growth is used by all investors. Therefore, my analysis considers the various alternative financial metrics available to investors. I then infer from this data reasonable future expectations of investors for the long-term growth rate of dividends.

Q. What financial information did you rely on in estimating investors' expectations of long-term sustainable dividend growth in your DCF analysis?

A. I considered four financial indicators of long-term dividend growth: 1) book value; 2) internal growth; 3) dividends per share: and 4) earnings per share. This information, when considered as a whole, indicates what investors can reasonably expect as a proxy for long-term sustainable dividend growth in making an investment decision. Each of these prospective indicators reflects the types of information that an investor may consider in making a specific investment decision. Each of these metrics is reported by *Value Line*.

However, while each of these financial indicators is important, no single indicator is sufficient or wholly reliable to estimate investor expectations of dividend growth for the group of proxy companies. On the other hand, some indicators are more important than others.

Q. What financial information among these factors is the most significant and carries considerable weight for investors in utility stocks?

A. The most significant factors for investors are growth in book value and internal growth. Investors in utility stocks know utility cash flows are predominantly a function of historical investment, or rate base. This is precisely why *Value Line* discusses this critical factor in its research covering utility companies. It provides investors in utility stocks updates on the status of rate cases for utilities and possible outcomes when significant new investments become used and useful. Therefore, investor expectations for future growth are in large part driven by expectations for growth in book value and internal growth. These two factors represent the long-term core earning power of utility operations. Furthermore, these factors along with expectations for earned returns on book represent the long-term earnings power of any utility. This data represents the long-term financial fundamentals of a utility subject to rate base rate of return regulation. Therefore, I give added weight to these metrics in my analysis.

Investors also consider earnings growth, but place less emphasis on this factor since utility earnings growth can be materially affected in the short-term by many factors, such as temperature, weather and other unusual events. Furthermore, earnings estimates are impacted by prior periods of exceptional earnings (either low or high) and investors take into account prior period earnings in the context of near term estimates provided by analysts. Indeed, investors would expect higher earnings growth rates from time to time as a company recovers from the earnings impact an

unusual event had on a prior period performance. However, long-term earnings growth for a utility can only be realized and sustained if: 1) book value grows; or 2) the earned rate of returns on book value increase. In other words, growth in earnings is dependent upon the long-term growth in the utility's book value and earned returns on book value.

Q. You state that an important element to investors is the expected internal growth. Will you briefly explain that financial metric and how it is calculated?

A. Internal growth is a function of the amount of earnings retained after dividends are paid to support future growth. In other words, if a utility that pays less of its earnings to investors (a lower payout ratio), that utility will have more earnings (higher retention ratio) for future growth. Conversely, investors will have lower expectations for growth if a utility has a high payout ratio. In other words, dividend policy impacts investor perception of future long-term growth.

Next, investors consider the earned rate of return on book and apply that to the portion of earnings retained as an estimate of the long-term potential for future growth. In other words, the expected earned return on book equity applied to earnings the company retains provides an indication to investors of future growth. Indeed, *Value Line* does mention this fact to utility investors from time to time in its publications.

This financial index as a measure of long-term growth can be translated into a commonly used formula: the rate of earnings on book equity ("*r*") times the amount

of earnings retained for future growth ("*b*"). The figure *{"b*r"}* is a critical factor for investors evaluating the prospect for sustainable dividend growth.

Q. What does *Value Line* indicate as the expected growth rate for book value for your proxy group?

A. It shows that the average growth rate in book value between 2011 and 2016 is 3.70 percent. However, it is my opinion that these indicated growth rates could increase since investors are anticipating utility companies to continue large capital budgets for new investments in infrastructure. As a result, investors would expect somewhat higher growth in book value prospectively than that indicated by the raw *Value Line* data.

Q. What does *Value Line* indicate as the expected internal growth rate *{"b*r"}* for your proxy group?

A. The data indicate that expected internal growth from retained earnings of the proxy group on average is 4.45 percent. This figure supports my expectation of higher growth in book value for utility companies.

Q. What does *Value Line* indicate as the growth rate for dividends from 2011 to 2016 for your proxy group?

A. *Value Line* indicates that the average growth rate for the group is 5.20 percent.

Q. Is it reasonable for investors to expect a 5.20 percent rate of growth in dividends in the future?

A. No. A dividend growth rate of 5.20 percent is not sustainable for this proxy group.

Q. Why is that growth rate in dividends unsustainable?

A. Three of the firms in my proxy group recently changed dividend policies to increase the dividend payout ratio. The figure reported by *Value Line* is high because the manner in which it calculates dividend growth does not adjust for changes in a company's dividend policy. The calculation is a simple weighting of the actual historical growth and expected future growth; it is not adjusted for any changes or trends in dividend policy.

Q. What three companies in your proxy group recently changed dividend policy?

A. CMS is beginning to raise its dividend after suspending it in 2004. Avista, after cutting its dividend in late 1998, is increasing its payout ratio to 60 percent. Finally, Great Plains cut its dividend in 2009 and is just now beginning on a path to restore its dividend back to an industry norm.

Therefore, the *Value Line* data for dividend growth is influenced by the recent increases in payout ratio of these three firms in the proxy group. Investors do not and cannot expect sustained long-term dividend increases at these rates. They will look to other factors in evaluating a sustained long-term growth rate for dividends. In particular, for these firms investors will look at the indicated growth

rates from internal growth and ratchet down expectations for long-term dividend growth as payout ratios return to more constant levels.

Q. What does Value Line show as the expected growth rate of your proxy group's earnings in the 2011 to 2016 time frame?

A. *Value Line* shows that the average rate of growth in earnings for this time series is 5.40 percent. Again, these figures are exceptional in that the same firms listed above are beginning to restore earnings after prior declines and it is not reasonable for investors to consider these as sustainable estimates of earnings growth as an indication of long-term dividend growth.

Q. How did you use this raw industry wide data in your estimate of long-term dividend growth?

A. I evaluated the internal rate of return on book equity necessary to achieve a long-term growth rate of 4.50 to 5.00 percent with a 40 percent retention ratio. The data show that if a utility earns of 11.25 percent on book equity, an internal growth rate of 4.5 percent is achievable.[27] Similarly, to achieve a 5.0 percent growth rate, a return on book of 12.5 is necessary.

These figures show that any long-term growth rate for any proxy group of companies above 5 percent is a best case scenario that investors could reasonably expect to realize and strongly suggests a reasonable growth rate in the range of 4.0 to 4.5 percent.

[27] {0.40*11.25 percent=4.5 percent}.

Q. Please summarize the relevant data that investors would rely upon to determine a reasonable estimate of long-term growth in dividends for the proxy group?

A. First, the growth in book value indicates a rate of 3.7 percent, but it is reasonable for investors to consider the impact of future investments utilities are expected to undertake. Next, the data show a growth from retained earnings of approximately 4.5 percent. The data show dividend and earnings increases are higher: 5.2 and 5.4 percent, respectively. However, as I explained, these last two metrics should be viewed cautiously and discounted in light of recent dividend policy changes and a turn-around in earnings power for three of the utilities in the proxy group. These growth rates in dividends and earnings should be tempered by the fact that payout ratios will stabilize in order for the firms to retain earnings for future growth.

Q. What does your analysis indicate for the data?

A. The simple average of the four metrics produces a figure of 4.7 percent dividend growth rate. Giving additional weight to the metric showing growth in retained earnings of 4.4 percent and book value growth in the range of 4.0 to 4.5 percent, indicates that 4.5 percent is a reasonable growth rate that investors could expect to achieve. Under a best case scenario, the indicated growth rate could be as high as 5.0 percent based upon expected dividend and earnings growth figures.

Q. Based on this data, what do you conclude is the expected long-term growth in dividends per share for the proxy group?

A. I conclude that investors would most likely expect 4.50 percent as a reasonable long-term dividend growth rate and 5.00 percent as a best case scenario.

Q. Based upon these factors, what is your estimate of the ROE for investors in PSE?

A. The dividend yield is in the range of 4.25 to 4.50 percent. The expected growth rate in dividends is between 4.50 and 5.00 percent. Therefore, I conclude that a reasonable range for the cost of equity is between 9.00 and 9.50 percent.

Q. Based upon your DCF analysis, what is your recommended ROE for PSE?

A. I conclude that a fair and conservative estimate of the Company's ROE is no more than 9.50 percent.

Q. Do you have any other comments with respect to your DCF analysis for the proxy group?

A. Yes. In an effort to consider the proxy group analysis in the context of the entire universe of electric companies followed by *Value Line*, I evaluated summary information *Value Line* regularly prepares for investors. *Value Line* states that the "industry average" dividend yield for 2009 was 4.8 percent and the current dividend yield is 4.5 percent. It anticipates a reduction in the yield to 4.3 percent in 2014-2016.

The composite data also informs investors of the overall ability of the industry to realize growth from retained earnings. It shows a retention rate of 42

percent and an expected earned return on equity of 10.5 percent, which produces an expected growth rate in retained earnings of 4.40 percent.

The data show aggregate revenues growing at the rate of 3.8 percent to 5.0 percent and net profit growing at a rate between 4.2 percent and 5.5 percent.

In conclusion, the composite data support both the reasonableness of my dividend yield estimate for my proxy group and the reasonableness of the estimated growth in dividends. This aggregate data suggest a ROE for the industry in the range of 9.00 to 9.50 percent, consistent with my DCF analysis for the proxy group and my ROE recommendation of 9.50 percent for PSE.

3. Capital Asset Pricing Model Analysis

Q. Please generally describe the Capital Asset Pricing Model (CAPM) and its underlying theory.

A. CAPM was developed in the 1960s and 1970s as an extension of modern portfolio theory, which studies the relationships between risk, diversification, and expected returns. The essence of modern portfolio theory is to measure risk by volatility, or "variance", to use a term more commonly associated with statistics.

CAPM also embraces the concept of diversification: investors should only be compensated for those risks that cannot be diversified through a portfolio effect. Put another way, investors should only be compensated for non-diversifiable risks. *Beta* ("β") is the measurement of a stock's non-diversifiable risk.

Q. What is the general form of the CAPM?

A. The general form is:

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

where: K = cost of equity
R_f = risk-free rate
R_m = expected return on market
β = beta
R_m-R_f = expected market risk premium

Q. Do you have any general comments regarding CAPM to estimate the cost of equity capital?

A. Yes. CAPM and modern portfolio theory have made significant contributions to finance and the evaluation of stock prices and returns. CAPM has significant appeal and there has been extensive empirical research done to determine its ability to explain risk and return. However, CAPM is a methodology that should be used with considerable caution. I agree with Dr. Olson that there is skepticism surrounding the methodology.[28] Therefore, while I conduct a CAPM analysis as a "check" to my DCF results, the Commission should view the results of the study with caution.

Q. Please explain why CAPM should be used with caution.

A. First, each of the elements in the formula is difficult to measure because there are simply too many issues surrounding the model's inputs. For example, what is the risk-free rate? What is the return on market? How is *beta* calculated and what adjustments are appropriate to its calculation? I am skeptical of any model which estimates an investor's rate of return when the variables of the model are unrelated to

[28] See Exhibit No. ___ (CEO-1T), page 19, lines 5-11.

the actual and anticipated financial performance of a specific firm or set of firms in a proxy group. Specifically, β is the only factor in CAPM that is unique to the specific company being analyzed and, as research indicates, it does not capture all elements of risk for any particular security.[29]

Q. Turning to your CAPM analysis, please explain the "risk-free" rate and indicate what rate you employed.

A. In the application of CAPM by experts that use the model, the risk-free rate (R_f) is generally recognized as the rate of long-term United States Treasury securities. However, using the price of long-term Treasury securities as a proxy for the risk-free rate is itself problematic, because these securities are not "risk free"; they still carry interest rate risk for an investor. Nonetheless, two general types of Treasury securities are often used as a proxy for this component: short-term Treasury bills and long-term Treasury bonds.

Q. What is the long-term rate for United States Treasury securities you used as a proxy for the risk-free rate in your CAPM analysis?

A. I used 4.25 percent, which was the yield for long-term Treasury securities at the time I prepared this CAPM study in June 2011. It is worth noting that prices for 30 year Treasury securities began falling again in August 2011 and in early October the yield fell to 2.75 percent. As of early November the yields are approximately 3.00 percent. A strict one-for-one application of the CAPM would indicate that the cost of equity is now lower by some 125 basis points based upon recent data. This is one

[29] See Exhibit No. ___ (CEO-1T), page 19, lines 9-11.

of the reasons why I recommend that the Commission be cautious with the CAPM model in its determination of a fair return on equity.

Q. Generally speaking, what is "*beta*"?

A. "*Beta*" is a measure of the relative volatility of a particular stock's return in relation to the overall return on the market. Modern portfolio theory states that the return of a stock in relation to that of the market is its indication of risk. A company whose stock has a *beta* greater than 1.0 indicates the stock is more volatile than the market as a whole. Conversely, a company whose stock has a *beta* less than 1.0 indicates the stock is less volatile than the market as a whole. Generally speaking, firms with higher *betas* require higher returns.

Utility stocks traditionally have a *beta* below 1.0. In other words, the returns for utility stocks exhibit less volatility than the market overall, and according to CAPM theory, investors will expect lower returns for investments in these companies due to lower volatility. This makes sense because utility companies are highly regulated and have significant protections as monopolies.

Q. What is the "*beta*" you used in your CAPM analysis?

A. PSE is not publicly traded and its β is no longer published. However, the last time *Value Line* calculated a *beta* for PSE as a publicly traded stock, it was 0.70. Based upon the data reported by *Value Line* for the proxy group, a *beta* of 0.70 is a reasonable estimate for purposes of this analysis.

Q. How did you estimate the market risk premium component of your CAPM analysis?

A. I estimated the market risk premium component (R_m-R_f) by considering what represents the premium investors expect for buying common stocks rather than "risk free" government bonds.

First, I note that CAPM, like DCF, is an *ex ante* proposition. In other words, investors' future expectations are relevant. Historical realized returns are irrelevant in applying the CAPM, despite the fact that many studies use historical data as a surrogate for future market returns. The model also requires a current risk-free rate matched with expected future market returns. Consequently, the relevant data is the current risk-free rate matched with current market return expectations of investors. As I stated earlier, investors in today's capital markets have reset expectations and expect lower returns on investments of all types in the future.

Q. How did you measure market risk premium?

A. I began by estimating the long-term expected return of a fully diversified portfolio of stocks as the surrogate for the expected return on market component of the CAPM.

There is no single factor that points to an objectively verifiable *ex ante* estimate for a return "on the market". Instead, my CAPM analysis is based upon a range of expectations for investors in current financial markets, including what some would consider aggressive expectations for investor returns in a fully diversified portfolio of common stocks.

Q. What did you use as an estimate of investors' return requirements, *i.e.* the market, for a fully diversified portfolio of equities?

A. Based upon my experience and knowledge, a reasonable expectation of a return for a fully diversified portfolio of equities is currently 10 percent, and an "aggressive" estimate for a market return is 12 percent. The latter figure shows the upper bound of what investors might expect for owning a fully diversified portfolio in today's markets.

Q. Based upon these inputs to CAPM, what is your estimate of the cost of equity for PSE?

A. In June 2011 when I prepared this CAPM analysis long-term Treasury securities were 4.25 percent. Using 4.25 percent as the risk-free rate, an expected return on the market of 10.0 percent and a *beta* of 0.70, the CAPM produces an expected return on equity of 8.30 percent for PSE.[30] On the "aggressive" side, if investors expect a return on the market of 12 percent, then the CAPM result for PSE would be 9.80 percent.[31] The average of these two figures is 9.05 percent.

If I use November 2011 Treasury yields of 3.00 percent the respective estimates produced by CAPM produce an even lower ROE estimate.

Q. Do you have any other comments about these CAPM results?

A. Yes. CAPM results are highly dependent upon both future market equity returns and long-term rates on Treasuries. As I previously noted, given the recent decline in

[30] {4.25 + [0.70(10.0-4.25)]}.
[31] {4.25 + [0.70(12.0-4.25)]}.

Treasury rates, CAPM would indicate a decline in the return on equity. Moreover, CAPM shows the extreme impact of the model if very favorable results for overall market returns are expected by investors. Only under the most aggressive investor expectations of future returns and higher interest rates would CAPM support an ROE estimate in the mid to high 9 percent range.

Q. What is your conclusion concerning the cost of equity for PSE based on the CAPM?

A. Based upon Treasury price data from June 2011, the average result of the CAPM is 9.05 percent. It supports a ROE in the low 9.0 percent range consistent with my DCF analysis. The most current data supports an even lower ROE estimate.

Q. Do you have any final comments with respect to your CAPM analysis?

A. Yes. The Commission should give little weight to the results. At most the CAPM analysis supports my conclusion presented earlier in my testimony: in the current environment the cost of capital will continue to be low in the rate year.

4. Risk Premium Analysis

Q. Did you undertake a Risk Premium analysis as a check on your cost of equity capital recommendation?

A. Yes, although indirectly. I am not an advocate of risk premium methodologies for the same reasons Dr. Olson states in his testimony.[32] However, I present a risk premium analysis for the Commission's consideration that evaluates the DCF result in comparison to the market cost of long-term debt for PSE. My Risk Premium analysis is indirect because it compares my recommended ROE to the cost of long-term debt for the Company and judges whether the premium for shareholders for owning the stock is reasonable compensation in today's capital markets.

Q. Please explain what the Commission should consider in the context of a Risk Premium analysis, if the Commission decides to consider this method.

A. First the Commission should consider the current cost of long-term debt investors are willing to accept today when buying PSE's long-term debt. This is measured by the coupon rate on the bonds PSE is issuing currently. The difference between the coupon rate and a ROE recommendation is called the "spread" or "risk premium", which is an estimate of the *ex ante* market risk premium. The underlying theory of my Risk Premium study is to consider whether the magnitude of this spread indicates that the ROE recommendation from my DCF analysis is reasonable.

Q. Please explain your analysis.

A. According to information filed by PSE with the Commission in Docket UE-101096 in June 2010, PSE issued 30 year debt with a coupon rate of 5.764 percent. Furthermore, PSE sold additional debt in late 2011 at rates between 4.50 and 4.80 percent.

[32] See Exhibit No. ___ (CEO-1T), page 17, lines 2-7.

Assuming a cost of equity as estimated by Dr. Olson of 11.00 to 13.00 percent, his ROE recommendation states that the *ex ante* risk premium is as high as 800 basis points. In effect, Dr. Olson advocates a risk premium for equity twice the cost of long-term debt.

Q. Is an equity risk premium in that range reasonable for equity owners?

A. No. The suggested ROE of 11 to 13 percent and the implied spread of 500 to 800 basis points is excessive compensation for equity owners over those investing in PSE's long-term bonds.

Q. Why do believe that a 500 basis point equity risk premium is excessive?

A. First, consider the opportunity costs for investors in long-term securities today. As I previously noted in my CAPM discussion, in June 2011 long-term Treasury securities were approximately 4.25 percent. PSE sold comparable long-term debt at just over 5.75 percent - a 150 basis point premium. Currently PSE just sold long-term debt at 4.75 percent, which is a175 basis point premium over comparable Treasuries. PSE proposes a 10.80 percent cost of equity, which is a 500+ basis point equity risk premium. For equity investors, this premium represents a spread of approximately 3.3 times the spread over its debt costs (3.3 * 150 = 500) and a spread of 4.3 times over that of comparable Treasury securities (10.80 – 4.25 = 655 basis points; 4.3 * 150 = 630).

Therefore, the Commission should ask the following question: is an equity risk premium of 500 to 600 basis points over PSE's estimated market-based debt

costs fair? The Commission should come to the same conclusion I reach in today's capital markets: a 600 basis point premium implicit in the Company's 10.8 percent ROE proposal is excessive in today's capital markets.

Q. How do the results of your DCF study fair in the context of a Risk Premium analysis?

A. My DCF result represents a premium of approximately 375 basis points over PSE's long-term debt costs for debt it issued last year. It is even higher considering the fact that PSE can issue new long-term debt today at a coupon I estimate in the range of 5.00 percent. I conclude that my recommended ROE of 9.50 percent with an equity risk premium of 375 to 450 basis points over PSE's long-term debt costs is adequate compensation for PSE's equity owners in today's capital markets.

5. Summary of Return on Equity Recommendation

Q. Please summarize the results of your cost of common equity analyses.

A. I place primary reliance on my DCF study, which indicates a ROE range of 9.00 to 9.50 percent. My CAPM study indicates a broader range and a lower estimate of ROE. Finally, a risk premium analysis supports my DCF analysis and estimate.

I therefore conclude that a fair return for PSE's equity owners is no more than 9.50 percent.

Q. What other factors should be considered by the Commission to determine fair compensation for PSE's owners?

A. There is strong market evidence of sustained low interest rates resulting in continued downward pressure on the cost of equity capital. My indicated range of a fair cost of equity is 9.00 to 9.50 percent. In the most recent case where cost of equity was contested, the Commission determined that 9.80 percent was fair for PacifiCorp. Since that decision, the market has assimilated the fact that the Federal Reserve will continue to keep short-term interest rates near zero for at least two more years. The market also has discounted the prospect of inflation. Finally, we are seeing long-term debt of PSE being sold with coupon rates below 5.0 percent. All this suggests that the Commission could reasonably accept a figure below 9.50 percent. The court in *Hope* indicated that the determination of a fair rate of return should balance investor and ratepayer interests. Given the low interest rate climate and the prospect of continued low interest rates for the foreseeable future, the Commission is well within a "zone of reasonableness" if it were to provide PSE an opportunity to earn in the low end of my indicated range. Anything above 9.50 percent is not fair to ratepayers and provides excessive compensation to PSE's owners.

D. Cost of Debt

Q. What is PSE proposing for its cost of long-term debt?

A. The Company's proposed cost of long-term debt is 6.36 percent.[33]

[33] Exhibit No. __ (DEG-4), page 4, line 31, column (G).

Q. Do you accept the Company's proposed cost of long term debt?

A. No. My cost of long term debt is slightly lower since I use a lower cost for the additional $250 million long-term debt PSE expects to issue in September 2011. Mr. Gaines estimates a cost for this new issue at 6.25 percent in his direct testimony.[34] In response to Staff Data Request No. 102, Mr. Gaines provided an update to the expected cost of issuing new debt in 2011. Based upon that update, and the retirement of a high cost tranche in September 2011, PSE now shows the new weighted average cost of long-term debt as 6.22 percent. I use that cost rate for the *pro forma* cost of long-term debt in this case.

Q. Do you accept the Company's proposed cost for short-term debt of 4.62 percent?

A. No. In the same response to Staff Data Request No. 102, Mr. Gaines now shows that the cost of short term debt is 2.68 percent. I used that new estimate in arriving at my rate of return recommendation.

E. Total Cost of Capital

Q. What is the total cost of capital for PSE?

A. PSE's total cost of capital is 7.59 percent. I provide the components of the capital structure and the corresponding cost rates in the table on page 2 of my testimony.

[34] Exhibit No. __ (DEG-1T), page 34, line 8and page 35, lines 11-12.

Q. Does a 7.59 percent cost of capital provide the Company a sufficient level of earnings to maintain its financial integrity, as required by the *Bluefield* and *Hope* standards?

A. Yes.

Q. Is there any other direct evidence of how investors perceive PSE in the current environment supporting your conclusion with respect to the *Bluefield* and *Hope* standards?

A. Yes. The critical element of these cases is whether the utility is able to maintain financial integrity and attract capital on reasonable terms. Since PSE is no longer publicly traded, I cannot analyze its market to book ratio and the terms and conditions under which it issues new equity. However, the Commission can look at PSE's ability to sell additional debt to fund its capital budget.

Q. What does the evidence say about PSE's ability to attract new capital on reasonable terms?

A. The evidence is that buyers are purchasing the fixed income securities of PSE to support regulated utility operations at reasonable rates, despite actual (booked) earned equity returns below authorized levels. Not only has the Company realized a rating increase in its corporate credit rating from BBB- to BBB[35] , but it also has successfully marketed its fixed income securities during the same historical period. Throughout the past decade it has successfully sold new debt at very attractive rates. In fact, since 2009, PSE has sold $1.125 billion of new debt at coupon rates less than

[35] See Exhibit No. ___(KLE-3) page 1 for a complete description of PSE's ratings by S&P.

6.0 percent.[36] Finally, the Commission should look at PSE's actual cost for issuing additional debt during fourth quarter 2011, which was issued at prices of less than 5.0 percent.

Q. Do you have any final observations with respect to PSE's ability to attract capital on reasonable terms and carry out its obligations as a public service company?

A. Yes. The final point I need to emphasize involves PSE's investment the Lower Snake River project. It is PSE's ready access to capital that enabled it to complete the entire project despite the fact that its initial partner, RSE, could not.[37] In 2009, PSE increased its capital budget significantly to buy out its initial partner in order to move forward with the entire project.[38]

Therefore, I conclude that my recommended cost of capital, which supports a corporate credit rating of BBB for PSE, enables PSE to attract capital on reasonable terms consistent with the standards of *Bluefield* and *Hope*.

F. Response to Company Cost of Capital Testimony

Q. Have you reviewed the testimony of PSE cost of capital witnesses Gaines and Olson?

A. Yes.

[36] See Exhibit No. __ (DEG-10), page 4, lines 18-27.
[37] See Exhibit No.___ (RG-1T) 32:12-21.
[38] *Id.* at page 35, line 26.

Q. What are the primary differences between your recommendation and the Company's proposed cost of capital?

A. The primary differences are: 1) Capital structure where I recommend a 46.0 percent equity ratio compared to the Company's proposed equity ratio of 48.00 percent; and 2) Cost of equity where I recommend a ROE of 9.5 percent and PSE proposes a ROE of 10.8 percent.

1. Equity Ratio

Q. What is the Company's justification for its proposed equity ratio of 48.00 percent?

A. Mr. Gaines asserts that the 48.00 percent equity ratio is its target to achieve financial flexibility necessary for the Company to access additional sources of new external capital on reasonable terms in order to fund its requirements as a public service company.[39] He also asserts that a 48.00 percent equity ratio is consistent with the capitalization ratios of other regulated utilities[40] and that the increase in the equity ratio from 46 to 48 percent may lead to an upgrade in PSE's corporate credit rating to BBB+.[41] Finally, Mr. Gaines asserts that the increased equity ratio and the sale of PSE have benefitted ratepayers, reducing the overall cost of the Company's long-term debt since 2005.[42]

[39] Exhibit No. ___ (DEG-1T), page 7, line 16.
[40] Exhibit No. ___ (DEG-6).
[41] Exhibit No. ___ (DEG-1T), page 16.
[42] Exhibit No. ___ (DEG-1T), page 46, lines 15-16 and page 47, Figure1.

Q. What is your response?

A. I do not contest his point that a more equity rich capital structure provides more financial flexibility, more financial stability, and perhaps higher bond ratings. However, as I previously demonstrated, a 48.00 percent equity ratio is too costly a price for ratepayers.

In contrast, my recommended 46 percent equity ratio is appropriate; it is sufficient to support the current corporate credit rating of "BBB" and an "A-" secured rating, enabling the Company to access any new capital requirements and refinance its maturing debt on reasonable terms.[43] BBB is the credit rating achieved by the large majority of investor-owned electric utilities operating in this country today.

Finally, Mr. Gaines overstates the impact on the Company's cost of long-term debt from the sale of PSE and the initial equity investment of the new owners increasing the equity ratio. The cost of long-term debt has declined for all investment grade utilities since 2005. Furthermore, the improvement in PSE's bond rating over the past decade is due to other factors. In fact, the improvement is in large part directly tied to the Commission's use of a hypothetical equity ratio in recent cases and the eventual increase of PSE's equity ratio over time to the level it achieved prior to sale of the Company to the new owners. Now that PSE's equity ratio is solidly within the range supporting a BBB corporate credit rating there is no need to further increase the ratemaking equity ratio to support a possible further increase to BBB+.

[43] See Exhibit No. __(DEG-1T), page 3, Table 2.

Q. Do you have any specific evidence of PSE's ability to attract capital on reasonable terms?

A. Yes. In November 2011, PSE sold $250 million of 30-year debt with a coupon of 4.50 percent and $45 million of 40-year debt with a coupon of 4.78 percent.

Q. Mr. Gaines states that his proposed 48 percent equity ratio is consistent with a recent decision of the Commission accepting a 49.1 percent equity ratio for PacifiCorp (Docket UE-100749). What is your response to this point?

A. It is true that the Commission adopted a 49.1 percent equity ratio for PacifiCorp. However, I do not see any connection between the 49.1 percent equity ratio the Commission accepted in that case and then its explicit affirmation of its policy that an appropriate capital structure requires a balance of safety and economy.[44] If the Commission had explicitly stated that a 49.1 equity ratio is an appropriate balance of safety and economy, then Mr. Gaines' testimony *may* be relevant.

The equity ratio I recommend for PSE in this case meets the Commission's standard. If the Commission determines that ratepayers should support higher equity ratios in order to achieve higher bond ratings, and that these ratings are consistent with its policy for determining a reasonable capital structure, then I would have expected the Commission to be explicit in that finding. No such statement has *ever* been made by the Commission, including the case referred to by Mr. Gaines.

Finally, as I demonstrated earlier, the benefits of these higher bond ratings do not match the costs. A solid BBB corporate rating is not only within the mainstream

[44] *WUTC v. PacifiCorp, d/b/a Pacific Power & Light Co.*, Docket UE-110749, Order 07 at ¶10 (May 12, 2011).

of all electric utilities, it is sufficient to enable the Company to maintain financial integrity and to finance on reasonable terms consistent with the legal standards set out in *Bluefield and Hope.*

2. DCF Growth Rates for the utility proxy group

Q. Regarding the DCF, please identify the key areas where you and Dr. Olson agree and disagree.

A. Dr. Olson and I both use the DCF method, though we do not use it in exactly the same way. The primary difference is that we do not agree on the appropriate dividend growth component of the DCF formula. Dr. Olson's exclusive use of analyst's earnings forecasts as a proxy for future dividend growth produces ROE estimates that are too high.

Q. Are analysts' earnings estimates or other earnings targets reliable indicators of long-term sustainable growth in dividends per share for use in the DCF formula?

A. No. Analysts' earnings estimates are not a good proxy for long-term dividend growth. They are typically short-term in nature and subject to change over time for many different reasons, such as unusual weather or other extraordinary events. Analysts' earnings estimates also tend to overstate what investors can reasonably expect because they are most often provided by persons with an interest in selling securities.

This is not to say that analysts' earnings targets are irrelevant. They are available and considered by investors, but they must be tempered by evaluating other financial data readily available to investors to see if credible results are produced. I found it rather surprising that Dr. Olson did not consider any other financial data provided by *Value Line* to its subscribers in his DCF analysis.

Q. What led you to conclude that the earnings growth estimates offered by Dr. Olson overstate the estimate of investor's expectations for long term dividend growth?

A. For example, consider Dr. Olson's use of the 11.75 percent earnings growth rate as the estimate of dividend growth for NV Energy. His estimate of dividend yield for NV Energy is 3.24 percent. Therefore, he is stating that the ROE for NV Energy is 15 percent. (11.75+3.24=14.99) Other earnings estimates also produce excessive results for other companies in his proxy group. His data show dividend growth for Alliant of 9.3 percent, Great Plains of 8.90 percent and Wisconsin of 8.5 percent.[45] No rational investor would expect any of these companies to have long-term sustainable growth in dividends of this magnitude.

Furthermore, only one company in his proxy group shows an earnings estimate below 6 percent: CMS at 5.88 percent. As a result, his DCF relies on an average growth rate for dividends of 7.81% and a median growth rate of 6.95%.[46] These estimates of earnings clearly strain any notion of reasonableness.

[45] Exhibit No. __ (CEO-4).
[46] *Id.*

Q. Can you show why Dr. Olson's earnings growth estimates are excessive?

A. Yes. One only needs to look at the earned return on book necessary to achieve these growth rates in earnings. Investors know utility earnings are a function of book value and earned book returns directly tied to earnings. The math is simple and straightforward using the traditional *"b*r"* formula. If earnings are to grow at a rate of 11.75 percent for NV Energy and its retention rate is 53 percent,[47] the earned return on book would have to rise above 22 percent {22.2 percent*0.53=11.75 percent} and sustain itself over the long-term. It is not rationale to conclude that investors expect constant earned returns to be in that range under any plausible scenario for any utility.

Q. Do you have any other observations about Dr. Olson's DCF analysis?

A. Yes. Dr. Olson failed to evaluate these earnings estimates with historical performance.[48] Staff requested any analysis he undertook to consider the historical earnings in the context of analyst's expected future earnings. In response to Staff Data Request No. 36 none were provided. While I do agree that historical earnings are not indicative of future earnings, I have shown that estimates are impacted by the recent results as a company recovers from periods of depressed earnings, and any analysis should evaluate prospective earnings estimates with this in mind in establishing sustainable long-term growth. Dr. Olson failed to do so.

[47] See Yahoo Finance.
[48] See Exhibit No.__ (CEO-1T) at page 24, line 3.

Q. How would past earnings impact current estimates of earnings growth?

A. A utility could have had poor earnings for brief periods such that a subsequent calculation of future rates of growth will be high due the fact that the base is low. In fact, *Value Line* shows that NV Energy's actual earned return on book since 2007 never exceeded 7 percent. While *Value Line* shows earnings growth of 9 percent for the period 2012 to 2016, that rate of growth is necessary for NV Energy's earned return on equity to recover to 9 percent. Once those earnings are achieved, there is no rational basis for investors to consider the same rate of growth to continue for the long-term.

Q. Dr. Olson presented a risk premium study. What comments do you have with respect to it?

A. First, Dr. Olson selectively uses and incorrectly mixes the data published by Ibbotson, all of which overstates the estimate in his study. Specifically, for stocks Dr. Olson uses total market returns, but he uses only income return for bonds to calculate his 6.6 percent risk premium.[49] If the data is to be consistent, the data should be the total return for both. If I make the data consistent, the equity risk premium is 5.7 percent using the arithmetic mean of total returns for both stocks and long-term bonds.

Q. What other problems exist with the data used by Dr. Olson in his risk premium study?

[49] Exhibit No. ___ (CEO-6), page 1, second column, first three lines.

A. He considers only Ibbotson's calculation of the return on the market based on the arithmetic mean for the entire period. The assumption that investors only consider this calculation of historical returns is incorrect. Ibbotson also publishes the geometric (compound) rate of return on the market for the same time series. Investors have this information available and would consider it in making investment decisions.

Q. What does Ibbotson indicate as a compound growth rate for the market based on total return for this time series?

A. Ibbotson shows that the mean total return calculated on the basis of a compound growth rate is 9.9 percent, and the mean total return calculated on the basis of a compound growth rate for long-term corporate bonds is 5.9 percent. Therefore, the indicated market risk premium using this data set of total return for stocks and bonds is 4.0 percent.

Q. What do you conclude from this data published by Ibbotson in estimating a market risk premium?

A If investors rely on historical returns to estimate the prospective equity risk premium, they would consider both the geometric and arithmetic return on the market. Furthermore, for long holding periods the compound growth rate is superior and should be given the most weight. However, at a minimum the analyst should consider the average of the two figures. Doing so indicates a historical market equity

risk premium of 4.85 percent. Providing a 2 to 1 weight of compound growth over arithmetic growth produces an estimate of 4.56 percent.

Q. What other problems exist with Dr. Olson's data in his risk premium study?

A. Dr. Olson uses Moody's 30 year forecast for government bonds; that figure overstates the current rate for government bonds by a significant amount. The estimate for long-term Treasury bonds he uses is no different than the price PSE sold new 30 year first mortgage bonds in 2010. Using the prices of Treasury bonds from June 2011 produces a yield of 4.5 percent, which is more reasonable. Combining that estimate of future yields on long-term government bonds with a more realistic estimate produces an ROE estimate of 9.0 percent.

Q. What conclusion do you reach with respect to Dr. Olson's risk premium study?

A. His study significantly overstates the ROE estimate due to his selective use of Ibbotson data. It ignores relevant data published by Ibbotson that is readily available to investors. In conclusion, Dr. Olson's risk premium study should be rejected by the Commission.

Q. Do you have any final comments with respect to Dr. Olson's risk premium study and the methodology in general?

A. Yes. The Commission has seen similar studies in prior cases and evaluated evidence from opposing experts concerning Ibbotson market data, arithmetic versus geometric returns for calculating the market risk premium, and the correct base for adding the

equity risk premium estimate. I have been unable to find any order where the Commission determined the proper data it will accept for purposes of how to apply a risk premium methodology.

Q. As a check on the DCF results, what conclusion do you reach based upon a risk premium study using Ibbotson data?

A. As a check, the Ibbotson data, if applied uniformly and completely, supports my conclusion that a ROE of 9.5 percent is a reasonable. That data showing an estimated Treasury bond yield of 4.50 percent with an equity risk premium of 4.50 to 5.00 percent suggests that an ROE of 9.00 to 9.50 percent is fair.

Q. Dr. Olson also presented a CAPM study. What comments do you have with respect to it?

A. I have the same concerns as just mentioned with his risk premium study. The use of 11.8% market return is aggressive and highly unlikely as the forecasted government bond yield. Both data points overstate the estimate. Finally, this data show why Dr. Olson and I both do not advocate CAPM as a reliable tool for estimating ROE: the results are too dependent on Treasury securities and estimates of future market returns.

IV. ATTRITION

A. Definition of Attrition and Commission Precedent for Attrition Adjustments

Q. Does PSE raise the issue of attrition?

A. Yes. PSE raises this issue in the direct testimony of Mr. Gaines and Dr. Olson who present comparisons of actual (per books) returns on equity with "authorized" returns on equity. Mr. Gaines asserts that PSE has under-earned its authorized ROE in 2007 and that the trend has been downward ever since. His time series of data shows an ROE of 9.1 percent in 2007, falling to an adjusted 6.4 percent in 2010.[50] Dr. Olson then alleges that this earnings short-fall for PSE is attrition.[51]

Q. What specific remedies does PSE propose to address the alleged attrition in this case?

A. In response to Staff Data Request No. 83 PSE identifies its remedies as:

- an increase in its ROE from 10.1% to 10.8% ROE;
- an increase in its equity ratio from 46% to 48%; and
- the proposed Conservation Savings Adjustment mechanism.

[50] Exhibit No.___(DEG-1T), page 23, Chart 1.
[51] Exhibit No.___(CEO-1T), page 8, lines 10-12 and 15-17.

Q. What is attrition?

A. The term typically is used to refer the erosion of a company's rate of return over time when the historical test period relationship in revenues, expenses and rate base accepted by the Commission in a rate case does not hold during a future rate year. This erosion deprives the utility an opportunity to earn a fair rate of return. However, there are circumstances where a change in the test year relationships of revenues, expenses and rate base provides the utility an opportunity to earn more than a fair rate of return. This would be positive attrition.

Q. When did the attrition issue first present itself in Washington?

A. Based on my review of prior Commission orders, the issue first arose in the early1970's. While the Commission initially did not call it "attrition", the issue at that time was the disparate growth in rate base and operating income in the rate year from test period relationships.

Q. What remedies did utilities propose during that time frame to address earnings erosion due to growing infrastructure investments?

A. The Commission was presented with proposals by utilities to use end-of-period balances in net plant to determine rate base. In Cause No. U-73-57, Puget Sound Power & Light Company ("Puget") proposed that its rate base be calculated on the basis of end-of-period balances to account for what Puget asserted was a changed relationship between test year and rate year investments.

Q. What did the Commission decide for Puget's proposal?

A. The Commission did not accept Puget's proposal for end-of-period rate base treatment. However, it stated,

> [The Commission] has not, however, discounted the validity of year-end rate base where special conditions exist, such as unusual growth in plant at a faster pace than customer growth and customary rate-making treatment is deficient. When a special condition is presented and shown to warrant year-end rate base treatment, consideration should be given to the revenue producing capabilities of plant added at the end, or near the end, of the test period.[52]

Q. In what other cases did the Commission consider end-of-period rate base and what did it decide with respect to its use?

A. In Cause No. U-80-25, Washington Natural Gas Company ("WNG") proposed end-of-period rate base to improve the prospects of it earning its allowed rate of return.[53] The Commission rejected the proposal due to WNG's failure to adequately demonstrate the validity of the remedy.[54] However, the Commission did state that it,

> [C]ontinues to be concerned about the need of utilities to deal with regulatory lag and inflation; …[The Commission] will be receptive in dealing with future cases to well-reasoned, supportable mechanisms to address these concerns, recognizing that the adoption of such mechanisms would require verifiable evidence of their validity and propriety.[55]

Q. Has the Commission ever accepted end-of-period balances for rate base to cope with growing investments, rising costs and regulatory lag?

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[52] *WUTC v. Puget Sound Power & Light Company,* Cause No. U-73-57, 6th Supp. Order at 9 (October 25, 1974).
[53] *WUTC v. Washington Natural Gas Company,* Cause No. U-80-25, 4th Supp. Order at 5 (September 19, 1980)
[54] *Id.* at 6.
[55] *Id.*

A. Yes. In Cause No. U-80-111, the Commission accepted this treatment as proposed by WNG. The Commission found that WNG was being impacted by inflation, rising investments, declining revenues due to rising prices of natural gas, and regulatory lag. However, in accepting end-of-period rate base the Commission also accepted the study submitted by WNG showing adjustments to its entire operations to capture end-of-period effects. There have been no other circumstances where this treatment has been accepted by the Commission.

Q. What other remedies did utilities propose during that time frame to address earnings erosion due to growing infrastructure investments?

A. The Commission began considering proposals to include construction work in progress ("CWIP") in rate base. If a utility could show that the result of its new construction amounted to a "dramatic" percentage of net plant, the Commission included CWIP in rate base.[56] The Commission's objective in accepting CWIP in the calculation of rate base was to ensure the financial integrity of the utilities. It is worth noting the similarity in circumstances then and those underlying PSE's alleged attrition today: increasing rate base not offset by a corresponding increase in revenue.[57]

Q. In addition to including CWIP in rate base, what other proposals were considered by the Commission to deal with attrition?

[56] *WUTC v. Pacific Power & Light Company,* Cause No. U-75-24, 2nd Supp. Order at 3-6 (September 30, 1975) and *WUTC v. Puget Sound Power & Light Company,* Cause No. U-78-21, 2nd Supp. Order at 13-19 (March 8, 1979).
[57] Exhibit No. __ (CEO-1T), page 8, lines 5-9.

A. Later, in the early 1980's, as the impact of inflation became an additional problem for utilities, the Commission considered specific attrition adjustments in addition to including CWIP in rate base.

Q. How is an attrition adjustment calculated?

A. An attrition adjustment analyzes actual historical trends in the growth rate of revenues, expenses and rate base to estimate the erosion in rate of return caused by disparate growth in each of these categories. Once the trend in each of these categories is estimated, it is then applied to the fully restated *pro forma* results of operations to calculate the impact on rate of return. Once the rate of return impact is calculated, it is translated to a revenue amount through the conversion factor.

Like the decision to include CWIP in rate base, attrition adjustments were explicitly linked to ensuring that utilities were able to finance their construction budgets and maintain financial integrity.[58] In accepting an attrition adjustment, the Commission stated,

> Upon examination of the detailed analysis of Mr. Louiselle's testimony and supporting exhibit, we are convinced that in order to preserve and maintain the company's financial integrity and allow it to generate sufficient cash flow consistent with its need for construction projects, and to attract investors at a reasonable cost, the staff's attrition allowance should be accepted.[59]

The policies adopted by the Commission to value rate base on end-of-period amounts, including CWIP in rate base and attrition adjustments were consistent with its over-arching statutory obligation to set rates that are fair, just, reasonable and sufficient.

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[58] *WUTC v. Washington Water Power Company,* Cause No. U-81-15/16, 2nd Suppl. Order at 22 (November 25, 1981).
[59] *Id.*

Q. During this period, what other proposals did the Commission consider to address significant increases in rate base and inflation?

A. Utilities also proposed future test periods based upon budgets. Examples of these proposals were Cause No. U-81-15/16, involving The Washington Water Power Company (now Avista) and Cause No. U-81-17, involving Pacific Power & Light Company (now PacifiCorp).

Q. What did the Commission decide with respect to these future test period proposals?

A. The Commission rejected the use of a future test period based upon budgets and rejected rate base determinations based on budgets or forecasts. In Cause No. U-81-15/16, the Commission stated:

> Traditionally, this Commission had adopted the historical test year to examine a utility's operating results. We are not at this time prepared to depart from that posture for a variety of reasons, including the inability of the company in this proceeding to demonstrate that the projected budget test year is reliable and reasonably subject to intelligent examination and scrutiny upon which we can base an informed judgment.[60]

Q. Do future test periods present these same problems today?

A. Yes. Budgets and future test years create the same issues and problems today as they did then: inaccuracy and unreliability. A budget or forecast is subject to error and revision. Indeed, one of the principle functions of effective management is controlling expenditures in light of new information. Furthermore, budgets tend to be "self-fulfilling prophecies". That is, if a utility has its rates set based on

[60] *Id.* at 7.

anticipated capital expenditures from a budget, the utility will spend that amount on its investments even if it is not reasonable or prudent to do so. In my opinion, this reduces the utility's incentive to efficiently budget and control expenditures. This is inconsistent with the Commission's recent affirmation that regulation should constantly provide incentives for a utility to manage costs in an efficient manner.[61]

Q. What has been the Commission's practice with respect to attrition?

A. Based on my review of prior orders, in setting rates, the Commission has provided a specific adjustment for attrition when the utility alleging attrition has proven in its direct case that the adjustment is necessary to provide an opportunity to earn a fair rate of return. This demonstration is based on a detailed showing that the test year relationship between revenues, expenses and rate base will not prevail in the rate year, and a calculation of the impact of that erosion on rate of return. When the utility has made that demonstration, the Commission has provided additional revenue, pursuant to the goal of providing the utility a reasonable opportunity to earn a fair rate of return.

Q. Is an attrition adjustment the only means by which the Commission could respond to the current circumstances described by PSE to address its ability to earn a fair rate of return?

A. No. As I described earlier, the Commission has accepted both CWIP and end-of-period amounts to determine rate base as a proper response to significant increases in

[61] *In the Matter of the Washington Utilities and Transportation Commission's Investigation into Energy Conservation Incentives*, Docket U-100522, Report and Policy Statement, page 16, ¶26 (November 4, 2010) ("Decoupling Policy Statement").

utility expenditures for new facilities. In accepting these methods of valuing rate base, the Commission requires a competent persuasive case in support of such treatment. However, the Commission has flatly rejected future test periods as a basis for determining fair rates.

Q. Is attrition always "negative" in that it always applies when a utility is not provided an opportunity to earn a fair return?

A. No. As I mentioned earlier, attrition can work in exactly opposite circumstances to benefit utilities. In fact, in Cause No. U-85-53, the Commission accepted Staff's recommendation for a "positive" attrition adjustment.

Q. Are the effects of attrition and regulatory lag always "bad"?

A. No. Regulatory lag should inspire utility managers to control costs aggressively to achieve the lowest reasonable cost of service, which is a good thing for both the utility and its rate payers. Attrition caused by increasing construction budgets also should inspire utility management to carefully evaluate capital budgets and approve only those projects absolutely necessary. I mentioned this earlier in my testimony when discussing the Commission's decision to reject future test periods based on budgets. This incentive also is consistent with the *Bluefield* and *Hope* standards regarding efficiency and our statutes governing the obligation of a public service company to keep its facilities safe, adequate and efficient.[62] Finally, the Commission

[62] RCW 80.28.010(2).

has recognized that historical test periods and regulatory lag are self-regulating mechanisms that provide the proper incentive for utilities to control costs.[63]

Q. Did you prepare an exhibit with the relevant excerpts from these orders addressing attrition?

A. Yes. Exhibit No. ___ (KLE-6) contains excerpts from the following orders describing the Commission's ratemaking policy with respect to attrition, rate base valuation, cost pressures, and future test periods:

- Cause U-75-24, Pacific Power & Light Company
- Cause U-78-22, Puget Sound Power & Light Company
- Cause U-80-10, Puget Sound Power & Light Company
- Cause U-80-25, Washington Natural Gas Company
- Cause U-80-111, Washington Natural Gas Company
- Cause U-81-15/16, Washington Water Power Company
- Cause U-81-17, Pacific Power & Light Company
- Cause U-81-41, Puget Sound Power & Light Company
- Cause U-85-53, Puget Sound Power & Light Company

Q. Since the Commission issued those orders, have there been any significant statutory changes affecting Commission regulation of gas and electric utilities?

A. Yes. The passage of Initiative 937, codified at RCW 19.285, established the mandate for electricity utilities to pursue all cost-effective, reliable and feasible

[63] *WUTC v. Puget Sound Power & Light Company,* Cause No. U-81-41, 2nd Supp. Order at 20 (March 12, 1982).

conservation. RCW 80.28.260(3) authorizes the Commission to consider policies to protect utilities from short-term reductions in earnings as a result of utility conservation programs.

Q. Do these statutory directives warrant abandonment of the ratemaking policies previously adopted by the Commission for attrition?

A. No. The circumstances facing utilities today are quite similar to those of the late 1970's and early 1980's: growing investments, high costs, and changes in revenues. Each of these broad categories of the ratemaking formula fits squarely within the scope of a credible attrition study. By providing this evidence and showing the trends in these components of the ratemaking paradigm, the Commission is able to exercise its judgment and implement its statutory mandate to set rates that are fair, just, reasonable and sufficient. Indeed, the Commission's recent Decoupling Policy Statement affirmed explicitly that an appropriate attrition study in a rate case is a proper response to address earnings erosion issues:

> The guidance provided in this policy statement does not imply that the Commission would not consider other mechanisms in the context of a general rate case, including an appropriate attrition adjustment designed to protect the company from lost margin due to any reason.[64]

Q. What have you concluded with respect to the Commission's policies concerning attrition and the circumstances facing PSE today?

A. If PSE believes existing ratemaking policies are inappropriate for the circumstances it faces today, it has the burden to show how these changed circumstances warrant

[64] Decoupling Policy Statement, ¶ 34.

new rate making policies that would be consistent with the statutory requirements for setting rates. As discussed next in more detail, PSE's simple showing that historical per book earnings are lower than what PSE believes it is entitled to earn is insufficient to prove attrition. Furthermore, deferring alleged lost margins due to conservation based upon engineering estimates is unacceptable as well. Ms. Reynolds addresses this point in her testimony responding to PSE's proposed Conservation Savings Adjustment.

B. PSE's Evidence on Attrition

Q. Did PSE submit or prepare an attrition study in this case?

A. No. No Company witness presents an attrition study or adjustment. Moreover, Staff asked PSE to provide any attrition study prepared since 2005. In response to Staff Data Request 90, PSE stated that it had not performed an attrition study during that period. Instead, in its response to the data request, PSE provided what it called a "ROE Gap Analysis-Calendar Year 2010", comparing what PSE believes to be the under-recovery of costs in each major category of expense and rate base in the 2010 test year. The analysis also shows changes in the growth rate of customers and load. This is not an attrition study. While it does contain data showing historical trends in net plant, expenses, customers and loads, it is not constructed in a manner that would enable the Commission to determine the degree of attrition PSE is expected to experience in the rate year.

Q. Has the Company presented an attrition study recently?

A. Yes. In Dockets UE-060266 and UG-060267, PSE presented attrition analyses for its electric and natural gas operations in support of a depreciation tracker mechanism in that case. The depreciation tracker was a new proposal to cope with the issues similar to those PSE again alleges in this case: regulatory lag and erosion of earnings due to increasing costs for new infrastructure.

Q. Did the Commission accept PSE's proposed depreciation tracker in that case?

A. No. The Commission determined that the proposed mechanism and the evidence supporting the new mechanism were insufficient. However, the point is that PSE did in fact present an attrition study in 2006. Now that it alleges attrition in this case it should have presented a study in support of its alleged attrition.

Q. Is the evidence PSE presented in this case of actual (per books) returns sufficient to demonstrate attrition?

A. No. Historical results showing actual returns are not sufficient to demonstrate attrition. Actual results are impacted by too many factors to be any gauge of attrition. If actual results were reliable, the rate setting process would be relatively simple since there would be no need for restating and *pro forma* adjustments. The Commission would simply take actual results and determine rates based upon those results.

Q. Does PSE offer any other evidence regarding its financial performance based upon actual results?

A. Yes. Ms. Harris discusses the volatile nature of actual results as a gauge of financial performance.[65]

Q. Is her testimony consistent with the reliance of Mr. Gaines and Dr. Olson on actual returns as a gauge of financial performance?

A. No. In fact, her testimony shows how various factors other than attrition affect actual earned returns. This directly contradicts Mr. Gaines' and Dr. Olson's reliance upon actual returns as a gauge of financial performance for ratemaking purposes.

Q. What other factors did you consider in evaluating the Company's claim of attrition based upon actual returns?

A. I also considered the fact that the data presented by Mr. Gaines is for the combined gas and electric utility operations.[66] By combining gas and electric results, the Commission is prevented from understanding what, if any, specific remedy may be necessary and appropriate for each line of business.

Q. Has the Commission ever evaluated whether actual results are a proper gauge of financial performance?

A. Yes. In 1988, the State legislature expressed concern to the Commission that utilities were realizing excessive earnings. The legislature reached this conclusion based

[65] Exhibit No. ___ (KJH-1T), page 3, lines 15-22 and page 4, lines 1-2.
[66] Exhibit No. ___ (DEG-1T), page 23, Chart 1.

upon actual per books results as reported to the Commission. The Commission realized that its then-existing rules requiring utilities to file financial reports based upon actual results were not an accurate gauge of financial performance and could lead to inaccurate conclusions. As a result, the Commission amended its rules to correct that flaw in reporting financial results. It now requires utilities to report normalized financial results, now commonly referred to as "Commission basis" results.[67]

Q. Can you provide any examples of how PSE calculates per books results and why its presentation of these results should be used with caution?

A. Yes. A good example is PSE's per books for December 31, 2010, for its electric operations. In its Commission basis report filed with the Commission, PSE records its FAS 133 mark-to-market results above the line. Exhibit No.___ (KLE-7) is a summary page of that report. On line 28 PSE shows the above-the-line treatment of this item in the per books results. As a result, line 34 is understated by $166,953,097. In turn, PSE calculates a per books rate of return on line 36 of 2.89 percent. The result is a significant understatement of the per books results.

Another example is the most recent quarterly report filed by PSE with the Commission showing the per book results for the period ending September 30, 2011. This data indicates that the alleged attrition is not so bad. PSE's report shows an overall rate of return of 7.03 and 7.31 percent, respectively, for its electric and natural gas operations.[68]

[67] WAC 480-90-257 and WAC 480-100-257.
[68] Dockets UE-111965 and UG-111966.

Q. What do you conclude about whether per books financial results should be used in the rate setting process to evaluate attrition?

A. Unadjusted per book results should not be a measure of attrition. Instead, a properly performed attrition study using trend analysis is necessary to determine whether there is a strong probability in the rate year that the utility will not experience the test period relationship of revenues, expenses and rate base.[69] Moreover, the specific attrition calculation will show the impact of attrition on rate of return. The Commission would then have evidence and the ability to determine the revenue necessary to provide PSE an opportunity to earn a fair rate of return.

Q. Both Mr. Gaines and Dr. Olson discuss attrition and its implications on the Company's owners and the cost of capital. What is your response?

A. I do not agree with their interpretations of *Hope* and *Bluefield.* In particular, their use of terms such as "entitled" or "authorized" when referring to actual earned returns is troublesome.[70]

This language suggests that regulation should guarantee a specified *ex post* return. Neither *Hope* nor *Bluefield* requires the Commission to guarantee a particular cost of capital or entitle a utility to a certain return on equity. In fact, *Hope* recognized that valid rate making may sometimes produce a lower return:

> Rates which enable the company to operate successfully, to maintain its financial integrity, to attract capital, and to compensate its investors for the

[69] *WUTC v. Washington Water Power Company,* Cause No. U-81-15/16, 2nd Suppl. Order at 22 (November 25, 1981).
[70] See Exhibit No. __ (DEG-1T), page 22, lines 1 and 9 and Exhibit No. __ (CEO-1T), page 10, line 8.

risks assumed certainly cannot be condemned as invalid, even though they might produce only a meager return on the so-called "fair value" rate base.[71]

In my opinion, the relevant question is whether the Commission treats its utilities consistently and fairly over time. My experience is that the Commission has done so. The Commission has provided PSE many special accounting and ratemaking treatments for many different items of expense and investment. In fact, Moody's identifies the Commission as providing, "Collaborative Regulatory Relationships and Credit Supportive Regulatory Practices."[72]

Q. Do you have any other comments with respect to the Company's presentation on attrition?

A. Yes. First, if the Commission amends its ratemaking practices and establishes rates that guarantee a rate of return, or otherwise develops policies that provide an entitlement to the "authorized" return on equity for any utility, then the ROE should be adjusted downward to reflect this substantial reduction in risk. The Commission has already recognized this principle when it stated that amending its ratemaking policies to implement full decoupling, a mechanism that guarantees revenues or profits, reduces risk and reduces both debt and equity costs.[73]

Second, the Commission should review the utility's capital structure in light of the guaranteed revenue and earnings stream of the utility. The purpose of an equity layer is to provide sufficient operating income or profit margin so the firm has sufficient pre-tax revenue to service debt under adverse earnings scenarios. If the

[71] *Hope Natural Gas Co.*, 320 U.S. 591 at 605.
[72] See Exhibit No.___ (DEG-5), page 2.
[73] Decoupling Policy Statement, ¶ 27.

utility is "entitled" to some level of profits, either through decoupling or some other mechanism guaranteeing profits, adverse earnings scenarios are eliminated. Therefore, the amount of equity and profit margin should be reduced accordingly.

Q. Does this have any impact on Staff's response to the Commission's Bench Request seeking input on decoupling?

A. Yes. Staff is providing a response to the Commission's Bench Request on decoupling and is also evaluating the conservation savings adjustment proposed by PSE. However, it is important to recognize that an attrition study, which includes a proper bill analysis, will capture the effects of conservation on PSE's opportunity to earn a fair rate of return. There is no need to develop a separate deferral mechanism for conservation impacts on load as proposed by PSE. Alternatively, if the Commission considers both an attrition study and decoupling, the Commission and parties will need to be sure there is no overlap between the two.

Q. Do you have any final comment with respect to the issue of attrition in evaluating PSE's direct case and the Commission's Bench Request with respect to decoupling as an appropriate response for utilities in today's environment?

A. Yes. An attrition study is much simpler to administer and evaluate in the context of the over-arching obligation of the Commission to set fair, just, reasonable and sufficient rates. Decoupling in all its varied forms creates unnecessary complexity. Indeed, the Commission recognized the potential for decoupling to create

unreasonable administrative burdens.[74] An attrition study is a simple effective tool for addressing load changes caused by all factors, and it provides the Commission with the best tool for determining fair rates.

Q. Please summarize Staff's position on the Company's case on attrition.

A. Any utility claiming attrition should support that claim by sufficient evidence, first, demonstrating that attrition exists, and, second, quantifying its impact on the rate of return. Despite being capable of presenting a full attrition analysis, PSE's claim for attrition is founded only upon actual, unadjusted total returns since 2007. PSE should have presented an attrition study and specified the attrition adjustment, consistent with Commission precedent and policy. Since PSE failed to do so, or explain why the Commission's established practice is no longer appropriate, its claim of attrition is unsubstantiated and should be rejected by the Commission.

C. Staff's Recommendation for Regulatory Lag

Q. Despite the Company's failure to prove and quantify attrition, are there circumstances currently facing PSE that warrant a ratemaking response?

A. Yes. The Company has presented testimony regarding ongoing costs associated with infrastructure additions, replacements and maintenance.[75] This testimony warrants a proper response, but one that is consistent with Commission practice and long-standing rate making principles embodied in an historical rate base matched with test

[74] Decoupling Policy Statement, ¶29.
[75] Exhibit No. ___(SML-1T).

period revenues and expenses that are normalized and include accepted adjustments to the test period.

Q. What do you recommend in this case?

A. Immediately following the determination of a fully contested rate case, PSE could file an "expedited" rate case using an updated test year. Basically, the case would be an update to the relationships between rate base, revenues and expenses. The Company could not request a change in the rate of return, except to update debt costs for known changes. To reduce controversy, the filing would contain restating adjustments only, such as adjustments for temperature normalization, unbilled revenues and other adjustments (*e.g.*, eliminate charitable contribution, club dues, etc., if any) to "clean" the books in order to reflect proper ratemaking. Finally, there should be no rate spread or rate design changes: the Company should follow the most recent Commission decision on those issues. It is important to note that this process I recommend includes normalizing test period load, which will capture the impact of conservation on utility revenue. It is a form of decoupling since rates will be adjusted in a timely manner to capture the effects of DSM, which theoretically reduces load, and captures the rate effects of load with new rate base additions. If the results of this filing show a revenue deficiency, the Company would include proposed rates based upon these updated test period results. Staff is committed to complete its investigation of those results prior to the beginning of the fourth quarter, the onset of the heating season.

Of course, PSE is not precluded from filing a "traditional" rate case, but this expedited process offers it the opportunity for faster rate relief. Finally, the Company would be allowed to use this process for only two consecutive years following a full evaluation in a traditional rate case.

Q. What are the benefits of this expedited process you describe?

A. This expedited rate setting process provides the following benefits: 1) the new rates would be based upon known costs - not budgets; 2) the process captures changes to test year customer growth and load in a timely manner; 3) it provides a mechanism to implement rate changes to maximize the impact on financial results; and 4) the process is transparent and retains the self-regulating aspects of historical test-period ratemaking which dampen the Company's incentive to overinvest in new infrastructure.[76]

This process will also provide these future benefits: 1) more streamlined and less contentious rate proceedings; 2) standardized filings for all utilities; 3) better data for the Commission; and 4) less rate case costs to the Company and other participants in the process.

Q. Why is it important to PSE to have new rates in effect prior to the heating season?

A. Energy utilities such as PSE generate up to 70 percent of their annual net operating income during the heating season, which is October through March. If the rate setting process can adjust to provide rate relief prior to the heating season, the rate

[76] The incentive to over-invest is known as the "Averch-Johnson Effect".

change impacts two annual reporting cycles for the utility: the fourth quarter of one financial cycle and the first quarter of the next financial cycle.

For example, if a 2011 updated test period shows a revenue deficiency, PSE should be able use the Commission basis reports for rates that impact the 2012 fiscal year. The expedited rate case I describe would be completed by September 30, 2012, in time for new rates during the fourth quarter of 2012, the onset of the heating season. "Syncing-up" rate relief with reported financial results is a significant step to address regulatory lag.

Q. Doesn't the timing of this case present difficulty in processing the course of action you recommend since the Commission basis report for 2012 will be filed in May 2011, before an order is issued in this case?

A. Yes, the fact that a rate order will likely not be issued by the Commission until May 2012 is problematic, but that can be overcome. In this initial case we would have to process the update more rapidly. It is also possible that the process could take an additional month and new rates would not be in effect until November 1, 2012. Furthermore, the process could begin with PSE filing its updated normalized 2011 results but no tariffs. Staff could begin its audit of the results. Once the Commission decides this case, PSE can then incorporate the Commission's decision and file for corresponding rates. In any event, Staff can begin its audit while the Commission is deciding the merits of this case.

Q. Do you have any final comments with respect to this proposed expedited rate case process you recommend for PSE in this case?

A. Yes. In the last case where an attrition study was offered Mr. Story discussed the need for more timely relief to address regulatory lag.[77] Staff's proposed rate setting process accomplishes that goal.

Q. Does this conclude your response testimony?

A. Yes.

[77] Exhibit No. 421 (JHS-1T) at 56:9-16 (Dockets UE-060266 and UG-060267).