Exhibit No. DCP-1T
Dockets UE-090704/UG-090705
Witness: David C. Parcell

BEFORE THE WASHINGTON STATE UTILITIES AND TRANSPORTATION COMMISSION

WASHINGTON UTILITIES AND TRANSPORTATION COMMISSION, **Complainant,** **v.** **PUGET SOUND ENERGY, INC.,** **Respondent.**	**DOCKET UE-090704** **and** **DOCKET UG-090705** ***(consolidated)***

TESTIMONY

OF

DAVID C. PARCELL

ON BEHALF OF THE STAFF OF WASHINGTON UTILITIES AND TRANSPORTATION COMMISSION

Cost of Capital

November 17, 2009

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I. INTRODUCTION

Q. Please state your name, occupation, and business address.

A. My name is David C. Parcell. I am President and Senior Economist of Technical Associates, Inc. My business address is Suite 601, 1051 East Cary Street, Richmond, Virginia 23219.

Q. Please summarize your educational background and professional experience.

A. I hold B.A. (1969) and M.A. (1970) degrees in economics from Virginia Polytechnic Institute and State University (Virginia Tech) and a M.B.A. (1985) from Virginia Commonwealth University. I have been a consulting economist with Technical Associates since 1970. I have provided cost of capital testimony in public utility ratemaking proceedings dating back to 1972. In connection with this, I have previously filed testimony and/or testified in about 450 utility proceedings before some 50 regulatory agencies in the United States and Canada. I have filed testimony in several proceedings in Washington in recent years, including the 2008 Puget Sound Energy rate proceedings (Dockets UE-072300 and UG-072301. Exhibit No. DCP-2 provides a more complete description of my education and relevant work experience.

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

A. I have been retained by the Staff of the Washington Utilities and Transportation Commission ("Commission") to evaluate the cost of capital aspects of the filing of

Puget Sound Energy, Inc. ("PSE" or "the Company") in these dockets. I have performed independent studies and am making recommendations of the current cost of capital for PSE.

Q. Have you prepared any exhibits in support of your testimony?

A. Yes, I have. Exhibit No. DCP-2 through Exhibit No. DCP-18 represent the analyses that support my cost of capital recommendation. These exhibits were prepared either by me or under my direction. The information contained in these exhibits is true and correct to the best of my knowledge and belief.

II. RECOMMENDATIONS AND SUMMARY

Q. What is your overall cost of capital recommendation in this proceeding?

A. My overall cost of capital recommendation for PSE is 7.89 percent, as is shown on Exhibit No. DCP-3, and can be summarized as follows:

	Percent	Cost	Return
Short-Term Debt	3.95%	2.47%	0.10%
Long-Term Debt	51.05%	6.45%	3.29%
Common Equity	45.00%	10.00%	4.50%
Total	100.00%		7.89%

Q. Please compare your 7.89 percent estimate to the Company's proposed cost of capital.

A. PSE requests a return on common equity of 10.8 percent and an overall rate of return of 8.50 percent. My cost of capital recommendation differs from PSE's request in

three respects. First, my 10.0 percent cost of equity differs from PSE's 10.8 percent request.

Second, PSE is requesting a hypothetical capital structure with 48.0 percent common equity. I am proposing a 45.0 percent equity ratio. My 45.0 percent equity ratio is more appropriate to use than the Company's proposed capital structure and properly satisfies the Commission's "safety and economy" criteria for selecting an appropriate capital structure. I do not believe the Company's proposed capital structure meets these criteria. In addition, my proposed capital structure is more consistent with the capital structures of other publicly-traded combination electric and gas companies.

Third, PSE is requesting a cost of long-term debt of 6.70 percent. This includes two future debt issues that assume cost rates higher than the recent issue (at 5.757 percent). I have "repriced" these two future issues at a cost of 5.757 percent, and I have also "priced" the differential of common equity (i.e., from 48 percent to 45 percent) and long-term debt at 5.757 percent, which results in a cost of debt of 6.45 percent.

Q. Please summarize your cost of capital analyses and related conclusions for PSE.

A. This proceeding is concerned with PSE's regulated electric and natural gas distribution utility operations in the State of Washington. My analyses are concerned with the Company's total cost of capital for its regulated operations. The first step I undertake in the determination of PSE's cost of capital is the development of an appropriate capital structure. As I just mentioned, I recommend use of a capital

structure with a 45.0 percent equity ratio. This is consistent with prior capital structures used by PSE and approved by this Commission. In my judgment, it reflects a capital structure that meets the Commission's standards of safety and economy.

The second step is a determination of the embedded cost rates of debt. I use a long-term debt cost of 6.49 percent, as described above. I use the 2.47 percent cost of short-term debt contained in the Company's application.

The third step is the estimation of the cost of common equity. I employ three recognized methodologies to estimate the cost of equity for PSE. I apply each of these methodologies to three groups of proxy utilities. These three methodologies and my findings are:

Methodology	Range
Discounted Cash Flow	9.6-11.3%
Capital Asset Pricing Model	7.9-8.2%
Comparable Earnings	9.5-10.5%

Based upon these analyses, I conclude that the cost of common equity for PSE is within a range of 9.5 percent to 10.5 percent. For purposes of this case, I recommend that the Commission authorize a 10.0 percent return on equity, the mid-point of my estimated range. This 10.0 percent return is also consistent with the results of my DCF analyses, which this Commission favors.

Combining these three elements into a weighted cost of capital, results in an overall rate of return of 7.89 percent.

Q. Are you aware that, in recent orders, the Commission has indicated that it expects cost of capital witnesses to demonstrate that any change in return on equity (from that determined in the most recent case for the same Company) be supported by testimony describing the nexus between the changed circumstances in the capital markets and the recommendation to change the return on equity?

A. Yes, I am. I have reviewed the Commission's decision in Dockets UE-060266 and UG-060267. In that order, the Commission stated at paragraph 84: "Little of the extensive testimony offered on this subject focuses squarely on what might have changed in the capital markets or at PSE in the last 18 months to justify a change in the ROE set by the Commission in February of 2005."

Q. Do you believe circumstances in the capital markets have changed, warranting a decrease in the Company's authorized return on equity from 10.15 percent to 10 percent?

A. Yes, I do.

Q. Please explain your opinion in more detail.

A. Beginning in September of 2008, and lasting through March of 2009, the US and global economies, as well as capital markets, have been volatile. During this time the capital markets practically came to a halt, as investors shied away from stocks and corporate bonds and invested only in the safest of investments – U.S. Treasury securities. As a result of this "flight to safety", rates on U.S. Treasuries fell to

unprecedented lows (reflecting an influx of capital into these "safe" investments). As a result, stock prices fell dramatically and corporate bond yields rose reflecting a reluctance of investors to own these securities. Over the past several months, the capital markets have largely improved such that the current yield on long-term corporate bonds have declined to levels less than those that existed prior to the late 2009 financial crisis.

Q. Please explain why the financial crisis has not increased the cost of capital for utilities such as PSE.

A. First, it must be emphasized that depressed economic conditions and the recent financial crisis affected virtually all sectors of the economy – households, small businesses, larger commercial and industrials – and, in most cases, the impact on those sectors is greater than was the case for PSE. This is because PSE is a regulated utility that sells a product that has few close substitutes. As such, PSE and utilities in general are partially, if not largely, insulated from the impacts of depressed economic conditions.

Second, the major impact of such a significant recession has been to depress the profits of most enterprises. As a result, it is evident that capital costs decreased as a result of the recession. The decline in capital costs is reflected in my CAPM analysis that I describe later. In short, there is no justification at this time for increasing the profit level of a regulated utility such as PSE at the same time that other enterprises are experiencing lower profits and lower cost of capital.

Third, the United States and global governments have, and are continuing to take extraordinary measures to avoid a further worsening of the current market circumstances. PSE, like other corporations, benefit from these measures. Likewise, PSE's ratepayers should be expected to pay rates recognizing the lower cost of capital resulting from these measures.

Q. What has been the trend in utility interest rates since PSE's last rate proceeding?

A. As is indicated in my Exhibit No. DCP-4, the yield on Baa rated utility bonds was about 7 percent in June-September of 2008, the time-frame of PSE's last rate proceeding. As this exhibit also indicates, rates rose to nearly 9 percent in late 2008 and remained in the 8 percent range through April of 2009 (i.e., during the financial crisis). Since that time, however rates on Baa rated utility bonds have declined to about 6 percent in September and October of 2009. This is nearly 100 basis points below the level prevailing at the time of PSE's last rate case. Indeed, this is reflected in PSE's most recent sale of new debt, which I describe later in my testimony.

Q. Based upon these trends and the Commission's stated preference to track cost of equity changes to capital market changes, what is the most appropriate cost of equity for PSE at this time?

A. Given the fact that capital opportunity costs, as well as interest rates, have generally declined from the time PSE's last return on equity was established by the Commission, as well as the declining economic environment in the U.S., the Commission should set PSE's cost of equity at no more than 10.0 percent. This is

near the lower end of my DCF findings (the Commission prefers the DCF methodology), and it is consistent with the findings of my Comparable Earnings ("CE") analyses. I believe a 15 basis point reduction from the 10.15 percent cost of equity the Commission determined in the 2008 PSE rate case is appropriate, given changes in the capital markets since that case was decided.

III. ECONOMIC/LEGAL PRINCIPLES AND METHODOLOGIES

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

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

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

The rate of return is developed from the cost of capital, which is estimated by weighting the capital structure components (i.e., debt, preferred stock, and common equity) by their respective percentages in the appropriate capital structure and multiplying these ratios by the respective cost rates of capital. This is also known as the "weighted cost of capital."

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

From an economic standpoint, if a utility earns a fair rate of return, that normally means that if the utility is efficient and economically managed, it will be able to maintain its financial integrity, attract capital, and earn a return comparable to that earned by similar risk investments. These concepts are derived from economic and financial theory and are generally implemented using financial models and economic concepts.

Although I am not a lawyer, and I do not offer a legal opinion, my testimony is based on my understanding that two United States Supreme Court decisions provide the main standards for a fair rate of return. The first decision is *Bluefield Water Works and Improvement Co. v. Public Service Commission of West Virginia*, 262 U.S. 679, 692 (1923). In this decision, the Court stated:

> What annual rate will constitute **just compensation** depends upon many circumstances and must be **determined by** the **exercise of fair and enlightened judgment**, having regard to all relevant facts. A **public utility** is entitled to such rates as will permit it to **earn a**

> **return** on the value of the property which it employs for the convenience of the public equal to that **generally being made** at the same time and in the same general part of the country on **investments in other business undertakings** which are **attended by corresponding risks and uncertainties**; but it has no **constitutional right to profits** such as are realized or anticipated in **highly profitable enterprises or speculative ventures**. The **return** should be reasonably sufficient to assure confidence in the **financial soundness** of the utility, and should be adequate, **under efficient and economical management**, to maintain and **support its credit** and **enable it to raise the money** necessary for the proper discharge of its public duties. A rate of return may be reasonable at one time, and become too high or too low by changes affecting opportunities for investment, the money market, and business conditions generally. **[Emphasis added.]**

It is my understanding that the *Bluefield* decision established the following standards for a fair rate of return: comparable earnings, financial integrity, and capital attraction, and notes the changing level of required returns over time, and assumes that the utility is operated in an efficient manner.

The second decision is *Federal Power Commission v. Hope Natural Gas Co.*, 320 U.S. 591, 603 (1942). In that decision, the Court stated:

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

The three economic and financial parameters in the *Bluefield* and *Hope* decisions - comparable earnings, financial integrity, and capital attraction - reflect the economic criteria encompassed in the "opportunity cost" principle of economics.

Q. How can these parameters be employed to estimate the cost of capital for a utility?

A. Neither the courts nor economic/financial theory have developed exact and mechanical procedures for precisely determining the cost of capital. This is the case because the cost of capital is an opportunity cost and is prospective-looking, which means that it must be estimated.

There are several different methodologies, using different sets of market and financial data, to assist in estimating the cost of equity capital. These include the Discounted Cash Flow ("DCF"), Capital Asset Pricing Model ("CAPM"), Comparable Earnings ("CE") and Risk Premium ("RP") methods. Each of these methods (or models) are different, but, if properly employed, can be used in estimating the cost of common equity for a regulated utility.

Q. Which methods do you employ in your analyses of the cost of common equity of PSE in this proceeding?

A. I utilize three methodologies to estimate PSE's cost of common equity: the DCF, CAPM, and CE methods. I have not employed a RP model in my analyses, although it should be noted that the CAPM is a version of the RP methodology. I describe each of these methodologies in more detail later in my testimony.

IV. GENERAL ECONOMIC CONDITIONS

Q. Are economic and financial conditions important in determining the cost of capital for PSE?

A. Yes. The costs of capital for both fixed-cost (debt and preferred stock) components and for common equity are determined in part by current and prospective economic and financial conditions. At any given time, each of the following factors has an influence on the costs of capital: the level of economic activity (i.e., growth rate of the economy), the stage of the business cycle (i.e., recession, expansion, or transition), the level of inflation, and expected economic conditions. My understanding is that this position is consistent with the *Bluefield* decision, where the Court noted: "[a] rate of return may be reasonable at one time, and become too high or too low by changes affecting opportunities for investment, the money market, and business conditions generally." 262 U.S. at 693.

Q. What indicators of economic and financial activity have you evaluated in your analyses?

A. I have examined several sets of economic statistics from 1975 to the present. I chose this time period because it permits the evaluation of economic conditions over three full prior business cycles plus the current cycle, allowing for an assessment of changes in long-term trends. This period also approximates the beginning and continuation of active rate case activities by public utilities.

A business cycle is commonly defined as a complete period of expansion (recovery and growth) and contraction (recession). A full business cycle is a useful and convenient period over which to measure levels and trends in long-term capital costs because it incorporates the cyclical (i.e., stage of business cycle) influences, and thus, permits a comparison of structural (or long-term) trends.

Q. Please describe the timeframe of the three prior business cycles and the most recent cycle.

A. The three prior complete cycles and most recent cycle cover the following periods:

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

Source: National Bureau of Economic, Research, "Business Cycle Expansions and Contractions."

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

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

Over the past two years, on the other hand, the economy declined significantly, initially as a result of the 2007 collapse of the "sub-prime" mortgage market and the related liquidity crises in the financial sector of the economy.

Subsequently, this financial crisis intensified with a more broad-based decline, initially based on a substantial increase in petroleum prices and a dramatic decline in the U.S. financial sector, culminating with the collapse and/or bailouts of a significant number of venerable institutions such as Bear Stearns, Lehman Brothers, Merrill Lynch, Freddie Mac, Fannie Mae, AIG and Wachovia. The recession also witnessed the demise of national entities, such as Circuit City, and the declared bankruptcy of automotive manufacturers, such as Chrysler and General Motors.

This decline has been described as the worst financial crisis since the Great Depression and has been referred to as the "Great Recession". The U.S. and other governments are in the process of implementing unprecedented actions to attempt to correct or minimize its scope and effects.

It appears that the recession has reached its low point and that the economy has begun to expand again. However, the length and severity of the recession, as well as an anticipated relatively slow recovery, implies that the impacts of the recession will be felt for an extended period of time.

Q. Please describe recent and current economic and financial conditions and their impact on the costs of capital.

A. My Exhibit No. DCP-4 shows several sets of relevant economic data for the time period: pages 1 and 2 contain general macroeconomic statistics; pages 3 and 4 show interest rates; and pages 5 and 6 contain financial market statistics.

Pages 1 and 2 show that the U.S. economy ended 2007 as the sixth year of an economic expansion but, as indicated previously, it was then entering a decline. This

is indicated by the growth in real (i.e., adjusted for inflation) Gross Domestic Product ("GDP"), industrial production, and the increase in the unemployment rate, which currently exceeds 10 percent on a national basis.

The rate of inflation is also shown on pages 1 and 2. As is reflected in the Consumer Price Index ("CPI"), for example, inflation rose significantly during the 1975-1982 business cycle and reached double-digit levels in 1979-1980. The rate of inflation declined substantially in 1981, and remained at or below 6.1 percent during the 1983-1991 business cycle. Since 1991, the CPI has been 4.1 percent or lower. The 0.1 percent rate of inflation in 2008 was the lowest level of the past thirty years. This is indicative of virtually no inflation, which is reflective of lower capital costs.

Q. What have been the trends in interest rates over this time period?

A. Pages 3 and 4 show several series of interest rates. Rates rose sharply to record levels in 1975-1981 when the inflation rate was high and generally rising. Interest rates declined substantially in conjunction with inflation rates during the remainder of the 1980s and throughout the 1990s. Interest rates declined even further from 2000-2005 and generally recorded their lowest levels since the 1960s.

During the past several years and up until the latter half of 2008, long-term interest rates remained low by historic standards. Most recently, the Federal Reserve has lowered the Federal Funds rate (i.e., short-term rate) on several occasions; currently it is 0.25 percent, an all-time low. The fourth quarter of 2008 and first quarter of 2009 experienced a pronounced decline in short-term rates and long-term U.S. Treasury Securities yields and an increase in corporate bond yields, creating a

"spread" between government and corporate bond yields unprecedented in recent financial history. This reflects the "flight to safety" I have mentioned.

On the other hand, I note that stock prices have improved and there has been a tightening in spreads between corporate debt vs. U.S. Treasury debt. In fact, as noted above, long-term utility bond yields are about 100 basis points lower than they were prior to the financial crisis and at the time of PSE's last rate case. As evidence of this PSE sold 30-year bonds at a rate of 5.757 percent, which is well below the interest rates that prevailed several months ago.

Q. What does this exhibit show for the trends in common share prices?

A. Pages 5 and 6 show several series of common stock prices and ratios. These ratios indicate that share prices were essentially stagnant during the high inflation/interest rate environment of the late 1970s and early 1980s. On the other hand, the 1983-1991 business cycle and the most recent cycle witnessed a significant upward trend in stock prices. Since the beginning of the current financial crisis, on the other hand, stock prices declined precipitously and have been very volatile. Stock prices in 2008 and early 2009 were down significantly from 2007 levels, reflecting the financial/economic crises. Beginning in the second quarter of 2009, prices have recovered somewhat but still remain well below the levels prevailing prior to the current recession.

Q. What conclusions should the Commission draw from your discussion of economic and financial conditions depicted in your data?

A. It is apparent that recent economic and/or financial circumstances have been radically different from any that have prevailed since at least the 1930s. The recent deterioration in stock prices and the decline in U.S. Treasury bond yields, and the increase in corporate bond yields reflected in the "flight to safety," described the temporary reluctance of investors to purchase common stocks and corporate bonds while moving their money into very safe government bonds. On the other side of this flight to safety is the negative perceptions of the recent decline, which has significantly reduced the value of most retirement accounts, investment portfolios and other assets; i.e., a decline in investor expectations of returns, including stock returns. Finally, as noted above, interest rates have recently declined to levels below those prevailing prior to the financial crisis of late 2008-early 2009.

Q. Given the recent uncertainty in the capital markets, why isn't it reasonable to conclude that the cost of capital for equities has increased?

A. This "flight to safety" should not be interpreted to reflect an increase in the cost of capital. Rather, it more properly reflects an "availability of capital" since investors, for a period, were unwilling to invest in any assets other than U.S. Treasury securities. As I noted previously, the opportunity cost of capital, as measured by the recent and current returns of unregulated firms, has been the lowest in recent memory. Clearly, this cannot be claimed to reflect an increase in the cost of capital for a regulated firm such as PSE.

V. PSE'S OPERATIONS AND RISKS

Q. Please summarize PSE and its operations.

A. PSE, in its current configuration, was formed in 1997 when Puget Sound Power & Light merged with Washington Energy. PSE is a public utility that has two regulated business segments: (1) it is engaged in the distribution, transmission, generation, purchase and sale of electric energy to about 1 million customers in the Puget Sound region of Washington; and (2) it has gas distribution service to about 750,000 customers in the same area. PSE is a subsidiary of Puget Holdings ("PH"), which in turn is owned by Macquarie Infrastructure Partners Consortium. I note that PSE's regulated electric and gas operations are recognized as being lower risk than the unregulated operations. This relationship is recognized by the rating agencies in the reports cited later in this section.

Q. Please describe Puget Holdings.

A. PH, formerly Puget Energy ("PE"), is a holding company, which was formed in 2001 to own PSE, which is its only subsidiary. In 2009, PE was acquired by Macquarie Infrastructure Partners Consortium. Subsequent to this merger, PH's ultimate parent is not publicly traded, a financial transaction frequently described as "going private."

Q. Are you aware that PSE maintained in its testimony in the merger proceeding (Docket U-072375), that because of "ring-fencing" provisions, the utility and its customers are insulated from holding company activities or difficulties?

A. Yes, I am aware of this. I note, on the other hand, that Moody's and Standard & Poor's initially put PE and PSE on review or CreditWatch with negative implications despite the proposed ring-fencing provisions. My Exhibit No. DCP-5 contains the documents in which Moody's and Standard & Poor's took this action.

Q. What have been the rating agencies reactions to the completion of the merger?

A. Standard & Poor's made the following comments on PSE in a January 16, 2009 RatingsDirect, just prior to the merger completion:

> On Jan. 16, 2009, Standard & Poor's Ratings Services raised its corporate credit rating on integrated electric and gas utility company Puget Sound Energy Inc. (PSE) to 'BBB' from 'BBB-', its secured ratings to 'A-' from 'BBB+', and its preferred stock and junior subordinated debt ratings to 'BB+' from 'BB'. At the same time, Standard & Poor's lowered its corporate credit rating on Puget Energy Inc. (Puget) to 'BB+' from 'BBB-'. Standard & Poor's removed all the ratings from CreditWatch with negative implications. The outlook is stable.
>
> The rating actions on PSE and Puget reflect their acquisition led by Macquarie Infrastructure Partners. All federal and state regualtory and shareholder approvals required for the merger have now been obtained, and the company expects the transaction to close by Feb. 6, 2009.
>
> Standard & Poor's placed the ratings on CreditWatch with negative implications on Oct. 26, 2007. The action followed the announcement that Puget has agreed to sell itself to a consortium of private investors led by Macquarie Infrastructure Partners, an affiliate of Macquarie Group Ltd. (A-/Negative/A-2) for $7.4 billion. The approved transaction is expected to increase total net debt by $850 million on consolidated basis while reducing debt at PSE.
>
> The upgrade of PSE and its related securities reflects Standard & Poor's view that plans to place an independent director on the board of directors of the utility company, coupled with other commitments, such as dividend restrictions, provides insulation to the utility company. In addition, the utility company's stand-alone financial metrics are expected to improve post-transaction as some debt is

repaid and, on a forward basis, the capital structure is expected to be managed to a more credit supportive level. The downgrade of Puget Energy reflects the additional transaction debt and our expectation that the amount of priority debt, including all operating company debt and credit facilities, in addition to the insulation of the utility company, is a disadvantage to creditors of Puget Energy.

Just following the merger, S&P made the following comments in a March 27, 2009 RatingsDirect:

> The 'BBB' corporate credit rating on Puget Sound Energy Inc. (PSE) primarily reflects the risk profile of its integrated electric and gas utility operations, and the 'BB+' corporate credit rating on Puget Energy Inc. (Puget) primarily reflects the consolidated financial measures that are weaker due to additional debt leverage and disadvantaged by insulating provisions, following Puget's acquisition by an investor consortium that closed on Feb. 6, 2009. However, the relationship between these entities and lack of other operating units constrains the degree of separation between the two credit ratings.
>
> Standard & Poor's Ratings Services views the package of commitments entered into by the company prior to the close of the merger, including the placement an independent director on the board of directors of the utility company, dividend restrictions based on minimum equity, financial tests, and credit ratings, as providing a degree of insulation to the utility company. In addition, the utility company's stand-alone financial metrics are expected to improve post-transaction as some debt is repaid and, on a forward basis, the capital structure is expected to be managed to a credit-supportive level. The corporate credit rating on Puget reflects the additional transaction debt and our expectation that the amount of priority debt, including all operating company debt and credit facilities, in addition to the insulation of the utility company, is a disadvantage to creditors of Puget.
>
> The business risk profile is 'excellent', reflecting the combined electric and gas utility business of PSE, which is subject to regulation by the Washington Utilities and Transportation Commission (WUTC). The regulatory environment in Washington and how the company manages its relationship with the WUTC are key drivers of credit quality, especially in light of PSE's high capital needs and commodity price exposure. PSE's cost recovery mechanisms support credit quality.

Each of these reports is contained in Exhibit No. DCP-5.

Q. What has been the trend in PH's business segment ratios in recent years?

A. PH reports two business segments – regulated utility and other. The other subsidiaries do not contribute significantly to PH's financial operations. The segment ratios are shown on Exhibit No. DCP-6. As indicated, the regulated utility operations of PH accounted for the following percentages:

Year	Operating Revenues	Net Income	Assets
2006	99.7%	103.2%	99.0%
2007	99.6%	99.7%	98.9%
2008	99.8%	102.9%	99.0%

The table above indicates that the regulated utility operations of PH account for the vast majority of its consolidated operations.

Q. What has been the trend in PSE's bond ratings in recent years?

A. This is shown on Exhibit No. DCP-7. PSE's most senior debt is rated in the Baa2 category (per Moody's) and in the A- category (per Standard & Poor's).

Q. How do PSE's bond ratings compare to other electric and combination utilities?

A. As I indicated in a previous answer, PSE has single A/triple B bond ratings, respectively, on its secured and unsecured debt. Below is a table depicting the bond rating data of the 60 electric utilities and combination gas/electric utilities covered by AUS Utility Reports:

Moody's Rating	Number of Companies	S&P Rating	No. of Companies
Aa2	1		
Aa3	2	AA-	2
A1	4	A+	1
A2	8	A	8
A3	12	A-*	18
Baa1	10	BBB+	9
Baa2	15 *	BBB	11
Baa3	1	BBB-	5
Ba or less	1	BB	1
NR	6	NR	5

* PSE's rating.

This comparison indicates that PSE's current ratings are similar to the most common rating categories of combination gas/electric utilities.

VI. CAPITAL STRUCTURE AND COST OF DEBT

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

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

As I discussed in Section III of my testimony, the purpose of determining the proper capital structure for a utility is to help ascertain its capital costs. The rate base – rate of return concept recognizes the assets employed in providing utility services and provides for a return on these assets by identifying the liabilities and common

equity (and their cost rates) used to finance the assets. In this process, the rate base is derived from the asset side of the balance sheet and the cost of capital is derived from the liabilities/owners' equity side of the balance sheet. The inherent assumption in this procedure is that the dollar values of the capital structure and the rate base are approximately equal and the former is utilized to finance the latter.

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

Q. How have you evaluated the capital structure of PSE?

A. I have first examined the five year historic (2004-2008) capital structure ratios of PSE. These are shown on Exhibit No. DCP-8. Here are the common equity ratios for PSE between 2004 and 2008:

	Including S-T Debt	Excluding S-T Debt
2004	38.7%	40.1%
2005	43.8%	44.2%
2006	40.1%	43.0%
2007	44.4%	46.7%
2008	38.0%	45.6%

This chart indicates that PSE's common equity ratio (excluding short-term debt) has generally remained in the mid-forty percent range. Including short-term debt, the equity ratios were lower and were less than 40 percent in 2008.

Q. How do these compare to the historic capital structure of PH?

A. Those are shown on page 2 of Exhibit No. DCP-8. The annual common equity ratios are:

	Including S-T Debt	Excluding S-T Debt
2004	39.0%	40.5%
2005	44.3%	44.7%
2006	40.6%	43.3%
2007	44.7%	46.9%
2008	38.4%	45.9%

Those are similar to those of PSE.

Q. How do these equity ratios for PSE compare to those of investor-owned electric utilities?

A. Exhibit No. DCP-9 shows the average common equity ratios (including short-term debt in capitalization) for the two groups of electric utilities covered by AUS Utility Reports. These are:

Year	Electric	Combination Gas And Electric
2004	47%	43%
2005	44%	47%
2006	45%	44%
2007	47%	46%
2008	45%	43%

These average common equity ratios are similar to those that PSE maintained during the same time period.

Q. What capital structure ratios has PSE requested in this proceeding?

A. The Company requests use of a hypothetical capital structure as follows:

Short-Term Debt	3.95%	
Long-Term Debt	48.05%	
Common Equity	48.00%	

This proposed capital structure contains a higher common equity ratio than the common equity requested by PSE in recent general rate case (i.e., 45.0 percent). It is also higher than the average common equity ratios of publicly-traded combination electric/gas utilities.

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

A. I recommend that the Commission use the same capital structure ratios requested by PSE in prior cases, which is 45.0 percent common equity (and includes short-term debt). This 45.0 percent common equity ratio is similar to that of the industry-wide electric and combination electric utilities I just cited. My Exhibit No. DCP-3 describes the derivation of my proposed capital structure.

Q. What is your understanding of this Commission's recent policy on the proper capital structure to use to determine the cost of capital?

A. It is my understanding that the Commission's policy on determining a capital structure balances safety (the preservation of investment quality credit ratings and access to capital) against economy (the lowest overall cost to attract and maintain capital). *WUTC v. Puget Sound Energy, Inc.*, Dockets UE-040640 and UG-040641, Order 06 at ¶27 (February 18, 2005). The Commission noted that the appropriate

capital structure can either be the Company's historical capital structure, the projected capital structure, or a hypothetical capital structure.

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

A. Yes. The capital structure that I use is similar to recent actual ratios and is consistent with the capital structures of other utilities. I also believe that the actual capital structure that I propose provides a "balance of safety and economy" as cited above.

Q. Please contrast your recommendation with that of PSE witness Gaines.

A. Mr. Gaines proposes a hypothetical capital structure that contains 48 percent common equity. This 48 percent common ratio exceeds percent common equity ratios requested by PSE and approved by the Commission in several recent rate proceedings of the Company. It also exceeds the 46 percent common equity ratio stipulated in the 2007 PSE rate proceeding, Dockets UE-072300 and UG-072301.

Mr. Gaines maintains that the 48 percent common equity ratio PSE proposes is justified by the recent capital structures of the Company. Exhibit No. DEG-1T, page 12. However, I note that the actual common equity ratio of PSE at the end of 2008 (i.e., just prior to the completion of the merger) was well below 48 percent. I also note that any changes to PSE's common equity subsequent to the merger reflect decisions by the new owner's of PSE. These decisions regarding PSE's capital structure are not necessarily consistent with the interests of ratepayers. Under these circumstances, the new owner's managing of capital structure to maximize the

effects of leverage through the holding company structure may not be consistent with the Commission's policy to balance safety and economy.

I also believe that an increase in PSE's regulatory equity ratio, immediately following the completion of the merger, may give the appearance of capital structure manipulation by PSE's parent company. There is also no indication that PSE's risks have increased, thus, there is no justification for an increase in the required equity ratio of the Company.

Q. PSE witness Morin indicates at Exhibit No. RAM-1T, pages 65-66 that a utility bond rating of single-A is "optimal." Do you have any response to this?

A. Yes, I do. I noted previously that the current bond ratings of electric and combination electric/gas utilities are about evenly split between single-A and triple-B. In addition, PSE's ratings are split between A- (S&P) and Baa2 (Moody's)

I do not believe there is any justification for attempting to "create" a single-A rating for a utility. Such an objective would require either a higher return on equity or a higher common equity ratio, or both. This would require ratepayers to pay higher rates immediately on all of the Company's common equity and/or an expanded level of common equity. In contrast, any positive impact of a higher bond rating would only be beneficial on the incremental long-term debt issued subsequent to the upgrade.

As a result, it is apparent that an "objective" to "create" a higher bond rating (i.e., to single-A) has an immediate and potentially significant impact on ratepayers (through a higher return on equity and/or higher equity ratio) which is "offset" by

only a limited and potential "savings" of debt costs limited to only subsequent debt issues. Such an "objective" should only considered with a demonstration that the "benefits" exceed the "costs."

Q. How did you derive your recommended capital structure?

A. I began with the level of total capital ($7,206,450,000) for PSE, as is shown on Exhibit No. DEG-10C, page 1. I accepted the level of short-term debt from Mr. Gaines' schedule. I then determined the amount of common equity by using the 45 percent common equity ratio I described above. Then, I added an amount of long-term debt to the level proposed by PSE in the amount required for the total capital to remain the same. This is shown on page 1 of Exhibit No. DCP-3.

Q. What is the cost rate of debt in the Company's application?

A. The Company's filing, as supplemented, cites the following cost rates:

Short-Term Debt	2.47%
Long-Term Debt	6.70%

I use this short-term debt rate in my cost of capital analyses. I do not use the 6.70 percent cost of long-term debt proposed by PSE. The 6.70 percent cost of long-term debt proposed by PSE contains two future debt issues that are to be sold in 2010. Those contain cost rates of 6.72 percent and 6.86 percent. These cost rates significantly exceed the actual 5.757 percent cost rate that PSE actually paid on 30-year bonds in September of this year. I have "repriced" the cost rate of the two 2010 debt issues of PSE at this 5.757 percent cost rate. I have also "priced" the long-term debt increment (i.e., differential between the amount of common equity at 48 percent

versus 45 percent) at 5.757 percent. The resulting cost of long-term debt is 6.45 percent. This is shown on page 2 of Exhibit No. DCP-3.

VII. COST OF EQUITY

A. Selection of Proxy Companies

Q. How have you estimated the cost of common equity for PSE?

A. PSE is not a publicly-traded company. Consequently, market information is not available for PSE's common stock, and it is not possible to directly apply cost of equity models using that information. Moreover, PSE's parent is not publicly-traded. As a result, it is generally preferable to analyze groups of comparison or "proxy" companies as a substitute for PSE to determine its cost of common equity. The use of proxy companies is also preferable to use of only a single company, because a group of companies provides for a balancing or averaging of statistics for multiple companies deemed to be of similar risk to the subject company.

Therefore, I examined three proxy groups for comparison to PSE. I selected one group of electric utilities similar to PSE using the criteria listed on my Exhibit No. DCP-10. These criteria are as follows:

(1) Net Plant of $1 billion to $10 billion;
(2) Electric revenues 50% or greater;
(3) Common equity ratio 40% or greater;
(4) S&P and Moody's bond ratings of BBB;
(5) S&P stock ranking of B or B+; and,
(6) Has paid dividends for 5 years.

Second, I conducted studies of the cost of equity for the two proxy groups selected by PSE's witness Dr. Morin. It is my intention that, by using both my own proxy group and Dr. Morin's proxy groups, the proxy group selection does not form a major controversy in the cost of equity estimation process. I note, on the other hand, that I regard my proxy group to be more appropriate than Dr. Morin's proxy groups since my group was selected based on risk and operating characteristics more directly reflective of PSE.

B. Discounted Cash Flow Analysis

Q. What is the theory and methodological basis of the discounted cash flow model?

A. The discounted cash flow (DCF) model is one of the oldest, as well as the most commonly-used, models for estimating the cost of common equity for public utilities. It is my understanding that the Commission's policy is to place primary reliance on DCF results in setting the cost of capital for the utilities it regulates. The DCF model is based on the "dividend discount model" of financial theory, which maintains that the value (price) of any security or commodity is the discounted present value of all future cash flows.

The most common variant of the DCF model assumes that dividends are expected to grow at a constant rate. This variant of the dividend discount model is known as the constant growth or Gordon DCF model. In this framework cost of capital is derived by the following formula:

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

where: K = discount rate (cost of capital)
P = current price
D = current dividend rate
g = constant rate of expected growth

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

Q. Please explain how you have employed the DCF model.

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

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

A. There are several methods that can be used for calculating the dividend yield component. These methods generally differ in the manner in which the dividend rate is employed; i.e., current versus future dividends or annual versus quarterly compounding of dividends. I believe the most appropriate dividend yield component is the version listed below:

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

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

The P_0 in my yield calculation is the average (of high and low) stock price for each proxy company for the most recent three month period (August-October, 2009). The D_0 is the current annualized dividend rate for each proxy company.

Q. How have you estimated the dividend growth component of the DCF equation?

A. The dividend growth rate component of the DCF model is usually the most crucial and controversial element involved in using this methodology. The objective of estimating the dividend growth component is to reflect the growth expected by investors that is embodied in the price (and yield) of a company's stock. As such, it is important to recognize that individual investors have different expectations and consider alternative indicators in deriving their expectations. This is evidenced by the fact that every investment decision resulting in the purchase of a particular stock is matched by another investment decision to sell that stock. Obviously, since two investors reach different decisions at the same market price, their expectations differ.

A wide array of indicators exists for estimating the growth expectations of investors. As a result, it is evident that no single indicator of growth is always used by all investors. It therefore is necessary to consider alternative indicators of dividend growth in deriving the growth component of the DCF model.

I have considered five indicators of growth in my DCF analyses. These are:

1. 2004-2008 (5-year average) earnings retention, or fundamental growth (per Value Line);

2. 5-year average of historic growth in earnings per share ("EPS"), dividends per share ("DPS"), and book value per share ("BVPS") (per Value Line);

3. 2009, 2010, and 2012-2014 projections of earnings retention growth (per Value Line);

4. 2006-2008 to 2012-2014 projections of EPS, DPS, and BVPS (per Value Line); and

5. 5-year projections of EPS growth as reported in First Call (per Yahoo! Finance).

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

Q. Please describe your initial DCF calculations.

A. Exhibit No. DCP-11 presents my DCF analysis. Page 1 shows the calculation of the "raw" (i.e., prior to adjustment for growth) dividend yield for each company in the proxy groups. Pages 2 and 3 show the growth rate for the groups of proxy companies. Page 4 shows the "raw" DCF calculations, which are presented on several bases: mean, median, and high values. These results can be summarized as follows:

			Mean		Median	
	Mean	Median	Low	High	Low	High
Proxy Group	10.0%	9.6%	8.5%	12.3%	7.7%	11.2%
S&P Group	11.3%	11.1%	10.4%	12.8%	10.6%	11.5%
Integrated Group	10.4%	10.0%	9.6%	11.9%	9.1%	11.1%

I note that the individual DCF calculations shown on Exhibit No. DCP-11 should not be interpreted to reflect the expected cost of capital for the proxy groups; rather, the individual values shown should be interpreted as alternative information considered by investors. The individual DCF calculations also demonstrate how the focus on a single growth rate, i.e. EPS projections, can produce a DCF conclusion that is not reflective of a broader perspective of available information.

The DCF results in Exhibit No. DCP-10 indicate average (mean and median) DCF cost rates of 9.6 percent to 11.3 percent. The "high" DCF rates (i.e., using the highest growth rates only) are 11.9 percent to 12.8 percent on an average basis and 11.1 percent to 11.5 percent on a median basis, while the "low" DCF rates (i.e., using the lowest growth rates only) are 8.5 percent to 10.6 percent.

Q. What do you conclude from your DCF analyses?

A. This DCF analysis indicates a range of 9.6 percent to 11.3 percent for the proxy groups. This is approximated by the average/mean values. I give less weight to the lower end of the DCF results, as well as significantly less weight to the extreme upper ends of the groups (which are impacted by outlier results).

Q. Which portion of the DCF range do you recommend at this time?

A. I believe that the lower portion of the 9.6 percent to 11.3 percent currently reflects the proper DCF cost for PSE. I specifically recommend 10.0 percent, because the DCF results are presently upwardly influenced by recent stock prices (i.e., higher yield).

Q. Please explain why it is currently proper to focus on the lower portion of the DCF range.

A. Current DCF results continue to be impacted by the decline in stock prices that have occurred over the past year, although prices have recovered somewhat over the past several months. The impact of these somewhat lower stock prices has the effect of raising the dividend yield component. In addition, the forecasts of growth rates for utilities, in particular earnings growth as emphasized by PSE witness Morin in his DCF analyses, focus on growth rates from a relatively low base period (i.e., the depth of the recession), which are not true long-run growth prospects which is a DCF assumption.

In addition, as I note later in my testimony, the impact of recent financial conditions has the effect of lowering CAPM results. Just as it would not be proper to focus on the lower CAPM results that are impacted by the recent financial market conditions, it is not proper to focus on the higher DCF results which are impacted in the opposite direction.

C. Capital Asset Pricing Model Analysis

Q. Please describe the theory and methodological basis of the capital asset pricing model.

A. The Capital Asset Pricing Model is a version of the risk premium method. The CAPM describes and measures the relationship between a security's investment risk

and its market rate of return. The CAPM was developed in the 1960s and 1970s as an extension of modern portfolio theory ("MPT"), which studies the relationships among risk, diversification, and expected returns.

Q. How is the CAPM derived?

A. The general form of the CAPM is:

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

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

As noted previously, the CAPM is a variant of the risk premium method. I believe the CAPM is generally superior to the simple risk premium method because the CAPM specifically recognizes the risk of a particular company or industry (i.e., beta), whereas the simple risk premium method assumes the same risk premium for all companies exhibiting similar bond ratings.

Q. What groups of companies have you utilized to perform your CAPM analyses?

A. I have performed CAPM analyses for the same groups of proxy utilities evaluated in my DCF analyses.

Q. Please explain the risk-free rate as used in your CAPM and indicate what rate you employed.

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

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

I have performed CAPM calculations using the three month average yield (August-October, 2009) for 20-year U.S. Treasury bonds. Over this three month period, these bonds had an average yield of 4.28 percent.

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

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

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

A. The market risk premium component (R_m-R_f) represents the investor-expected premium of common stocks over the risk-free rate, or government bonds. For the purpose of estimating the market risk premium, I considered alternative measures of

returns of the S&P 500 (a broad-based group of large U.S. companies) and 20-year U.S. Treasury bonds.

First, I have compared the actual annual returns on equity of the S&P 500 with the actual annual yields of U.S. Treasury bonds. Exhibit No. DCP-12 shows the return on equity for the S&P 500 group for the period 1978-2007 (all available years reported by S&P). This exhibit also indicates the annual yields on 20-year U.S. Treasury bonds, as well as the annual differentials (i.e., risk premiums) between the S&P 500 and U.S. Treasury 20-year bonds. Based upon these returns, I conclude that this version of the risk premium is about 6.45 percent.

I have also considered the total returns (i.e., dividends/interest plus capital gains/losses) for the S&P 500 group as well as for the long-term government bonds, as tabulated by Morningstar (formerly Ibbotson Associates), using both arithmetic and geometric means. I have considered the total returns for the entire 1926-2008 period, which are as follows:

	S&P 500	L-T Gov't Bonds	Risk Premium
Arithmetic	11.7%	6.1%	5.6%
Geometric	9.6%	5.7%	3.9%

I conclude from this that the expected risk premium is about 5.32 percent (i.e., average of all three risk premiums). I believe that a combination of arithmetic and geometric means is appropriate since investors have access to both types of means and, presumably, both types are reflected in investment decisions and thus stock prices and cost of capital.

Exhibit No. DCP-13 shows my CAPM calculations using the risk premium. The results are:

	Mean	Median
Proxy Group	8.2%	8.2%
S&P Group	8.2%	8.2%
Integrated Group	8.0%	7.9%

Q. What is your conclusion concerning the CAPM cost of equity?

A. The CAPM results collectively indicate an equity cost of 7.9 percent to 8.2 percent for the two groups of comparison utilities. I conclude that the CAPM cost of equity for PSE is 7.9 percent to 8.2 percent.

D. Comparable Earnings Analysis

Q. Please describe the basis of the comparable earnings methodology.

A. The comparable earnings ("CE") method is derived from the "corresponding risk" standard of the *Bluefield* and *Hope* cases that I discussed earlier. This method is thus based upon the economic concept of opportunity cost. As previously noted, the cost of capital is an opportunity cost: the prospective return available to investors from alternative investments of similar risk.

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

The CE method normally examines the experienced and/or projected returns on book common equity. The logic for examining returns on book equity follows from the use of original cost rate base regulation for public utilities, which uses a utility's book common equity to determine the cost of capital. This cost of capital is,

in turn, used as the fair rate of return which is then applied (multiplied) to the book value of rate base to establish the dollar level of capital costs to be recovered by the utility. This technique is thus consistent with the rate base methodology used to set utility rates.

Q. How have you employed the CE methodology in your analysis of PSE's common equity cost?

A. I conducted the CE methodology by examining realized returns on equity for several groups of companies and evaluating the investor acceptance of these returns by reference to the resulting market-to-book ratios. In this manner, it is possible to assess the degree to which a given level of return equates to the cost of capital. It is generally recognized for utilities that market-to-book ratios of greater than one (i.e., 100%) reflect a situation where a company is able to attract new equity capital without dilution (i.e., above book value). As a result, one objective of a fair cost of equity is the maintenance of stock prices just above book value.

I would further note that the CE analysis, as I have employed it, is based upon market data (through the use of market-to-book ratios) and is thus essentially a market test. As a result, my analysis is not subject to the criticisms occasionally made by some who maintain that past earned returns do not represent the cost of capital. In addition, my analysis uses prospective returns and thus is not confined to historical data.

Q. What time periods have you examined in your CE analysis?

A. My CE analysis considers the experienced equity returns of the proxy groups of utilities for the period 1992-2009 (i.e., the last eighteen years). The CE analysis requires that I examine a relatively long period of time in order to determine trends in earnings over at least a full business cycle. Further, in estimating a fair level of return for a future period, it is important to examine earnings over a diverse period of time in order to avoid any undue influence from unusual or abnormal conditions that may occur in a single year or shorter period. Therefore, in forming my judgment of the current cost of equity I have focused on two periods: 2002-2009 (the current business cycle) and 1992-2001 (the most recent complete business cycle).

Q. Please describe your CE analysis.

A. Exhibit No. DCP-14 and Exhibit No. DCP-15 contain summaries of experienced returns on equity for several groups of companies.

Exhibit No. DCP-14 shows the earned returns on average common equity and market-to-book ratios for the two groups of proxy utilities. These can be summarized as follows:

	Proxy Group	S&P Group	Integrated Group
Historic ROE			
Mean	8.3-10.9%	11.6-12.1%	10.0-10.5%
Median	8.6-11.4%	11.7-12.2%	10.4-12.4%
Historic M/B			
Mean	147-157%	167-174%	137-164%
Median	135-157%	161%	153-166%
Prospective ROE			
Mean	9.2-9.7%	12.1-12.2%	11.0-11.5%
Median	9.0-9.5%	11.5-12.0%	10.5-11.0%

These results indicate that historic returns of 8.3-12.2 percent have been adequate to produce market-to-book ratios of 135-167 percent for the groups of proxy utilities. Furthermore, projected returns on equity for 2010, and 2012-2014 are within a range of 9.0 percent to 12.2 percent for the utility groups. These relate to 2008 market-to-book ratios of 118 percent or higher.

Q. Have you also reviewed earnings of unregulated firms?

A. Yes. As an alternative, I also examined a group of largely unregulated firms. I have examined Standard & Poor's 500 Composite group, since this is a well recognized group of firms that is widely utilized in the investment community and is indicative of the competitive sector of the economy. Exhibit No. DCP-15 presents the earned returns on equity and market-to-book ratios for the S&P 500 group over the past sixteen years. As this Exhibit indicates, over the two periods this group's average earned returns ranged from 13.9 percent to 14.7 percent with market-to-book ratios ranging between 284 percent and 341 percent.

Q. How can the above information be used to estimate the cost of equity for PSE?

A. The recent earnings of the proxy utility and S&P 500 groups can be utilized as an indication of the level of return realized and expected in the regulated and competitive sectors of the economy.

Q. What return on equity is indicated by the CE analysis?

A. Based on the recent earnings and market-to-book ratios, I believe the CE analysis indicates that the cost of equity for the proxy utilities is no more than 9.5 percent to 10.5 percent (10.00 percent mid-point). Recent returns of 8.3 percent to 12.2 percent have resulted in market-to-book ratios of 135 and greater. Prospective returns of 9.0 percent to 12.1 percent result in anticipated market-to-book ratios of over 100 percent. An earned return of 9.5 percent to 10.5 percent should thus result in a market-to-book ratio of over 100 percent. As I indicated earlier, the fact that market-to-book ratios substantially exceed 100 percent indicates that historic and prospective returns of over 10.5 percent reflect earnings levels that exceed the cost of equity for those regulated companies.

Please also note that my CE analysis is not based on a mathematic formula approach, as are the DCF and CAPM methodologies. Rather, it is based on recent trends and current conditions in equity markets. Further, it is based on the direct relationship between returns on common stock and market-to-book ratios of common stock. In utility rate setting, a fair rate of return is based on the utility's assets (i.e., rate base) and the book value of the utility's capital structure. As stated earlier, maintenance of a financially stable utility's market-to-book ratio at 100%, or a bit higher, is fully adequate to maintain the utility's financial stability. On the other hand, a market price of a utility's common stock that is 150 percent or more above the stock's book value is indicative of earnings that exceed the utility's reasonable cost of capital. Thus, actual or projected earnings do not directly translate into a

utility's reasonable cost of equity. Rather, they must be viewed in relation to the market-to-book ratios of the utility's common stock.

My 9.5 percent to 10.5 percent CE recommendation is not designed to result in market-to-book ratios as low as 1.0 for PSE. Rather, it is based on current market conditions and the proposition that ratepayers should not be required to pay rates based on earnings levels that result in excessive market-to-book ratios.

E. Return on Equity Recommendation

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

A. The three different methodologies produce the following estimated ranges for PSE's cost of equity capital:

Discounted Cash Flow	9.6-11.3%
Capital Asset Pricing Model	7.9-8.2%
Comparable Earnings	9.5-10.5%

Q. What is your cost of equity recommendation for PSE?

A. It is my understanding that the Commission places the heaviest reliance on the DCF method to determine the cost of equity for the utilities it regulates. Accordingly, my recommendation places more emphasis on the DCF findings of 9.6 percent to 11.3 percent or a 10.0 percent approximate lower end. I note that the results of my CE analyses (9.5 percent to 10.5 percent) corroborate my DCF findings. My specific finding for PSE is 10.0 percent, which gives primary consideration to the 10.0 percent low end of my DCF findings, but also is consistent with my CE results.

Q. Why are your CAPM results significantly lower than your DCF results?

A. CAPM results are lower than the DCF results, and have been lower than CAPM results in recent years. The two reasons for the lower CAPM results are the current relatively low yields on U.S. Treasury bonds (i.e., risk-free rate) and a lower risk premium that reflects the decline in stock prices in 2008.

Q. Does this mean that CAPM results should be discarded?

A. No. These currently lower CAPM results are only one-half of the impact of recent economic conditions. The other impact is on the DCF results, which are somewhat higher currently due to the higher yields attributable to the decline in stock prices. It would not be proper to disregard the lower CAPM results while not discounting the higher DCF results. This confirms my 10.0 percent cost of equity estimate for PSE.

VIII. TOTAL COST OF CAPITAL

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

A. PSE's total cost of capital is 7.89 percent. Exhibit No. DCP-3 reflects the total cost of capital for the Company using my proposed capital structure and cost of debt along with the range of common equity costs my DCF analysis supports.

Q. Does your cost of capital recommendation provide the Company with a sufficient level of earnings to maintain its financial integrity?

A. Yes, it does. Exhibit No. DCP-17 shows the pre-tax coverage that would result if PSE earned my cost of capital recommendation. As the results indicate, my recommended range would produce a coverage level within the benchmark range for a BBB rated utility. In addition, the debt ratio is within the benchmark for a BBB rated utility.

IX. COMMENTS ON COMPANY TESTIMONY

Q. Have you reviewed the testimony of PSE witness Roger Morin?

A. Yes, I have.

Q. What is your understanding of Dr. Morin's cost of equity recommendation for PSE?

A. Dr. Morin is recommending an 11.5 percent cost of common equity for PSE. This recommendation is based upon his implementation of the following cost of equity models:

	Morin Conclusions	
CAPM		
Traditional	8.5%	
Empirical	8.9%	
Average		8.7%
Risk Premium		
Historical Electric		11.1%
DCF		
Vertically Integrated Value Line	12.4%	
Vertically Integrated Zacks	12.1%	
S&P Electric Value Line	12.2%	
S&P Electric Zacks	12.3%	
Average		12.3%
Combined Average		11.1%

Based upon these results, he concludes that 11.1 percent to 11.5 percent is the cost of equity for an average electric distribution utility. He recommends an 11.5 percent return on equity for PSE, reflecting his perception that PSE has a "higher relative risks." However, PSE is requesting a 10.8 percent cost of equity in its filing.

Q. What is your understanding of Dr. Morin's CAPM analyses?

A. Dr. Morin performs CAPM analyses for a group of electric utilities (0.76 average beta). He combines this 0.76 beta with a 3.6 percent level cost of long-term (30-year) Treasury bonds and a 6.5 percent risk premium to get the following CAPM results (Page 46):

$$K = RF + \beta(RP) = 3.6\% + 0.76\ (6.5\%) = 8.5\%$$

These results are consistent with my CAPM results.

Q. Please describe Dr. Morin's "empirical" CAPM analysis.

A. Dr. Morin also employs what he describes as an "empirical" CAPM analysis. This form of the CAPM assumes that beta for an industry understates the industry's volatility and thus risk and it is necessary to substitute the overall market's beta (i.e., 1.0) for one-fourth of the industry's actual beta. Dr. Morin assumed that the appropriate beta in a CAPM analysis is a combination of the actual industry beta with a 75 percent weight and a beta of 1 with a 25 percent weight.

The use of an empirical CAPM overstates the cost of equity for companies with betas below that of the market. What the empirical CAPM actually does is inflate the CAPM cost for the selected company or industry on one-fourth of its

equity and assumes that one-fourth of the company has the risk of the overall market. This essentially creates a hypothetical beta and CAPM result which is not appropriate for PSE or for other utilities.

Q. Please describe your understanding of Dr. Morin's risk premium analysis.

A. Dr. Morin next performs a risk premium analysis. This involves the estimation of a 5.0 percent equity risk premium over the 6.1 percent yield on A-rated utility bonds. This risk premium he developed is a Historic risk premium for the electric utility industry.

Q. Please describe Dr. Morin's historic risk premium for the electric utility industry.

A. Dr. Morin's historic risk premium for the electric utility industry involves an examination of the total returns of 20-year Treasury bonds (capital gains/losses plus interest) and Standard & Poors' Utility Index (capital gains/losses plus dividend yield) over the period 1931-2007. The average historical difference between the electric utility returns and the A-rated bond returns was 5.0. His historic risk premium for the electric utility industry simply added the 6.1 percent current A-rated bond yield to the 5.0 percent historic risk premium to get an 11.1 percent result.

Q. Do you agree with this methodology for estimating the cost of equity for PSE?

A. No, I do not. Dr. Morin's historic risk premium of 5.0 percent is simply an examination of historical events going back to 1931. He has made no demonstration

that economic and financial conditions in 2009 are similar to those over the past seventy plus years. The use of such a methodology implicitly assumes that the events of each of these years can have the same influences at the current time.

In addition, the risk premiums developed by Dr. Morin are generally dominated by the influence of capital gains in many years. I do not believe it is proper to assign PSE's cost of equity based directly upon a methodology which is dominated by stock market changes and bond market changes.

It is also apparent that the risk premium level has been very volatile over the 1931-2007 period. The highest risk premium was 59.58 percent in 1935 and the lowest was -43.28 percent in 2001. The averages by decade have also been quite different, as is shown on my Exhibit No. DCP-18. This indicates that the decade of the 1950's dominates the risk premium averages with a 13.61 percent premium. The most recent complete decade (i.e., the 1990's), in contrast, shows a -0.28 percent risk premium and since 2000 the average has been 4.20 percent (an average that will fall substantially when 2008 is included).

Q. What is your understanding of Dr. Morin's DCF analyses?

A. Dr. Morin performs several sets of DCF analyses for two groups of electric utilities. In these analyses, he uses "spot" dividend yields for each company as of February 2009. For the growth rates, he used two indicators of growth – Zacks 5-year EPS growth projections and Value Line projections of EPS growth.

The major problem with Dr. Morin's DCF analyses is the fact that he has used only one indicator of growth – projections of EPS growth. As I indicated in my DCF analysis, it is customary and proper to use alternative measures of growth.

Dr. Morin's DCF analyses implicitly assume that investors rely exclusively on EPS projections in making investment decisions. This is a very dubious assumption and Dr. Morin has offered no evidence that it is correct. I note, for example, that Value Line – one of the sources of his growth rate estimates – contains many statistics, both of a historic and projected nature, for the benefit of investors who subscribe to this publication and presumably make investment decisions based at least in part from the information contained in Value Line. Yet, Dr. Morin would have us believe that Value Line subscribers and investors focus exclusively on one single number from this publication.

I note in this regard that the DCF model is a "cash flow" model. The cash flow to investors in a DCF framework is dividends. Dr. Morin's DCF model, in contrast, does not even consider dividend growth rates.

Q. Do you disagree with Dr. Morin's risk-adjustment for PSE's cost of equity?

A. No, I do not.

Q. Dr. Morin's testimony, on pages 57-59, cites his perception that PSE's "construction risk" makes the Company more risky than other electric utilities. He also states, on pages 60-61 that "regulatory lag" is a major risk factor faced by the Company. Are those assertions valid?

A. No. Dr. Morin makes reference to PSE's "massive construction program" and cites this as a major risk factor impacting the Company. I note that all perceived risks, including construction risk and regulatory lag, are factored into the assessment of rating agencies when they assign security ratings for any company. In this regard, I note that PSE's security ratings that have changed in the several years have been to higher ratings, as is shown on Exhibit No. DCP-7.

Q. Have the credit rating agencies identified PSE's construction program as an item of particular concern?

A. Standard & Poors notes that PSE's business risk profile is "excellent" reflecting the combined electric and gas utility businesses of the Company. It also cites the "cost recovery mechanisms" that support the Company's credit quality.

Again, all of these factors consider any impact of the Company's "construction risk" and S&P in fact cites the Company's capital requirements in its assessment. Nevertheless, this singular item does not dominate S&P's assessment nor does it dominate investors' decisions regarding the cost of equity.

Q. Dr. Morin proposes to increase his cost of equity results by 0.30 percent for "flotation costs." Do you agree with this proposed adjustment?

A. No, I do not. It is neither necessary nor appropriate to add a flotation cost "adder" to the cost of equity developed using market-based models such as DCF and CAPM. These models, which rely on stock price data, already reflect all known and relevant information which are embedded in stock prices. Any perceived impact of flotation

costs on stock prices is thus already reflected in the cost of equity derived from these models.

I also note that PSE, on a post-merger basis, does not have a parent that issues stock to the public and incurs any flotation costs. Further, PSE receives equity from its current (or future) parent and thus does not incur flotation costs. This is the case since the ultimate parent is not publicly traded and does not issue equity in the capital markets, thus incurring flotation costs.

Q. Does this conclude your response testimony?

A. Yes, it does.