Exhibit No. ___ (DCP-1T)
Dockets UE-121697, et al.
Witness: David C. Parcell

BEFORE THE WASHINGTON
UTILITIES AND TRANSPORTATION COMMISSION

WASHINGTON UTILITIES AND TRANSPORTATION COMMISSION, **Complainant,** **v.** **PUGET SOUND ENERGY,** **Respondent.**	**DOCKETS UE-121697 and UG-121705 (*consolidated*)**
WASHINGTON UTILITIES AND TRANSPORTATION COMMISSION, **Complainant,** **v.** **PUGET SOUND ENERGY, INC.** **Respondent.**	**DOCKETS UE-130137 and UG-130138 (*consolidated*)**

TESTIMONY

OF

DAVID C. PARCELL

ON BEHALF OF THE STAFF OF WASHINGTON UTILITIES AND TRANSPORTATION COMMISSION

Cost of Common Equity

December 3, 2014

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LIST OF EXHIBITS

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 580, 9030 Stony Point Parkway, Richmond, Virginia 23235.

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 an 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 this regard, I have previously filed testimony and/or testified in over 500 utility proceedings before about 50 regulatory agencies in the United States and Canada. I have previously filed testimony on behalf of Commission Staff in proceedings involving Puget Sound Energy, Avista Corp., and PacifiCorp. 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 provide analyses and recommendation of the cost of common equity for Puget Sound Energy, Inc. ("PSE"), relative to the early 2013 time period.

Q. Please indicate why your analyses of PSE's cost of equity were performed within an early 2013 timeframe.

A. The filings underlying these proceedings were made in early 2013, and included an Expedited Rate Filing (ERF) and an amended Decoupling proposal for both of PSE's electric and natural gas distribution operations. It is my understanding that the Commission entered its Final Order (Order 07) on June 25, 2013. It is also my understanding that Order 07 was reversed, in part, by the Superior Court in Thurston County on grounds that, in the Decoupling and ERF proceedings, the Commission should have considered the same type of evidence of PSE's cost of equity that the Commission typically considers in a general rate case.

It is also my understanding that Staff testimony in that proceeding, which did not include cost of capital/cost of equity issues, was scheduled to be filed in March 2013. As a result, my analyses primarily focus on the three-month period January–March, 2013. As such, my cost of equity analyses are performed in a time frame consistent with one I would have used if I had testified in that proceeding in 2013. I also note that the Commission's Order 10 in this proceeding (paragraph 24) cites an expectation that the parties will "provide focused and detailed analyses such as would have informed a determination of return on equity in early 2013. . . ."

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

A. Yes. In addition to Exhibit No. ___ (DCP-2), identified above, I have prepared Exhibit Nos. ___ (DCP-3) through (DCP-13). These exhibits were prepared either by me or under my direction. The information contained in these exhibits is correct to the best of my knowledge and belief.

II. RECOMMENDATIONS AND SUMMARY

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

A. This proceeding is concerned with PSE's regulated electric utility and natural gas distribution operations in Washington, as of early 2013. In my analyses, I interpret "early 2013" as the three month period January–March 2013. I have employed three recognized methodologies to estimate the cost of equity for PSE.

Each of these methodologies is applied to three groups of proxy utilities. The first group is compiled of publicly-traded electric utilities (or holding companies) that I have selected based on operating and risk characteristics that are similar to PSE (as of early 2013). The second group is the group of utilities employed by the Industrial Customers of Northwest Utilities (ICNU) witness Gorman in his April 26, 2013 Response Testimony in this proceeding. The third group is the combination electric and gas utilities sample group used by PSE witness Morin in his November 5, 2014 Direct Testimony. These three methodologies and my findings are:

Methodology	Range	Mid-Point
Discounted Cash Flow	9.1–9.7%	9.4%
Capital Asset Pricing Model	6.5–6.8%	6.7%
Comparable Earnings	9.0–10.0%	9.5%

Based upon these findings, I conclude that the cost of common equity for PSE, as of early 2013, was within a range of 9.0 percent to 10.0 percent. This range approximates the respective end-points of the DCF and CE analyses. Within this range, I recommend the mid-point value, or 9.5 percent. I note, on the other hand, that my range does include the 9.8 percent return on equity authorized by the Commission in Order 08 in Dockets UE-111048 and UG-111049 and maintained in Order 07 in this proceeding.

III. ECONOMIC/LEGAL PRINCIPLES AND METHODOLOGIES

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

A. Public utility rates are normally established in a manner designed to allow the recovery of their costs, including capital costs. This is frequently referred to as "cost of service" ratemaking. Rates for regulated public utilities traditionally have been primarily established using the "rate base–rate of return" concept. Under this method, utilities are allowed to recover a level of operating expenses, taxes, and depreciation deemed reasonable for rate-setting purposes, and are granted an opportunity to earn a fair rate of return on the assets that are used and useful (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 percentages in the capital structure and multiplying these by their cost rates. This is also known as the weighted cost of capital.

Technically, "fair rate of return" is a legal and accounting concept that refers to an *ex post* (after the fact) earned return on an asset base, while the 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 do in my testimony.

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

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

> 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. It also noted the changing level of required returns over time as well as an underlying assumption that the utility be operated in an efficient manner.

The second decision is *Federal Power Comm'n v. Hope Natural Gas Co.*, 320 U.S. 591 (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 *Hope* case is also frequently credited with establishing the "end result" doctrine, which maintains that the methods utilized to develop a fair return are not as important as long as the end result is reasonable.

The three economic and financial parameters in the *Bluefield* and *Hope* decisions—comparable earnings, financial integrity, and capital attraction—reflect the economic criteria encompassed in the "opportunity cost" principle of economics. The opportunity-cost principle provides that a utility and its investors should be afforded an opportunity (not a guarantee) to earn a return commensurate with returns they could expect to achieve on investments of similar risk. The opportunity cost principle is consistent with the fundamental premise on which regulation rests, namely, that regulation is intended to act as a surrogate for competition.

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 dictates that it must be estimated.

There are several useful models that can be employed to assist in estimating the cost of equity capital, which is the capital structure item that is the most difficult to determine. 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) differs from the others and each, if properly employed, can be a useful tool in estimating the cost of common equity for a regulated utility.

Q. Which methods have you employed in your analyses of the cost of common equity in this proceeding?

A. I have utilized three methodologies to determine PSE's cost of common equity: the DCF, CAPM, and CE methods. For reasons I will explain later in my testimony, I have not strictly employed a RP model in my analyses, although, as I indicate later, my CAPM analysis is a form of the RP methodology. Each of these methodologies will be described in more detail in my testimony that follows.

IV. PUGET SOUND ENERGY'S OPERATIONS AND BUSINESS RISKS

Q. Please describe PSE and its operations.

A. PSE is a regulated combination electric and natural gas utility that generates, transmits and distributes electricity to some one million customers and natural gas to over 700,000 customers in the Puget Sound area of Western Washington.

Q. Please describe PSE's ownership structure.

A. PSE is a subsidiary of Puget Energy ("PE"), which was formed in 1997 by the merger of Puget Sound Power and Light Company and Washington Energy Company (parent of Washington Natural Gas Co.). PE existed as a publicly-traded entity until 2009, when it was acquired by a group of foreign investors (Macquarie Group) in a leveraged private equity buyout. PE is now a Washington-based holding company whose operations are conducted through PSE.

Q. What were the "early 2013" security ratings of PSE?

A. The "early 2013" ratings of PSE were as follows:

Rating Agency	Issuer Rating	Senior Secured
Moody's	Baa2	A3
S&P	BBB	A-

(Source: Response to UTC Staff Data Request No. 3).

As this indicates, PSE had "split" single A/triple B ratings in early 2013.

Q. What have been the recent trends in PSE's debt ratings?

A. This is shown on Exhibit No. ___ (DCP-3). Each of PSE's debt ratings increased by at least one "notch" over the six-year period 2007 to early 2013.

Q. How did the bond ratings of PSE compare to other electric utilities in early 2013?

A. As I indicated in a previous answer, PSE had single A bond ratings on its senior debt, which are investment grade (i.e., Triple-B or above). Of the 50 electric utilities and combination gas and electric utilities covered by AUS Utility Reports, the following numbers of bond ratings existed as of early 2013:

Moody's Rating	Number of Companies	S&P Rating	Number of Companies
Aa2	1	AA-	1
A1	1	A+	--
A2	7	A	3
A3*	19	A-*	18
Baa1	12	BBB+	11
Baa2	7	BBB	10
Baa3	--	BBB-	2
Ba or less	--	BB	--
NR	3	NR	4

* PSE's ratings.

This comparison indicates that PSE's ratings were at or above to the most common rating categories of most electric utilities in early 2013. This implies that PSE had similar risk to that of the industry of which it is a part.

V. CAPITAL STRUCTURE

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 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. Have you evaluated the capital structure of PSE?

A. Yes. I have examined the five year historic (2008–2012; i.e., latest five years as of early 2013) capital structure ratios of PSE. These are shown on Exhibit No. ___ (DCP-4). I have summarized below the common equity ratios for PSE. These are seen to be as follows:

	PSE	
Year	Incl. S-T Debt	Excl. S-T Debt
2008	44.7%	47.9%
2009	48.2%	50.2%
2010	46.2%	47.2%
2011	46.7%	47.8%
2012	46.1%	46.8%

This indicates that PSE's equity ratio was about 46 percent (including short-term debt) as of early 2013.

Q. How do PSE's actual capital structures compare to those of investor-owned electric utilities?

A. Exhibit No. ___ (DCP-5) shows the common equity ratios (including short-term debt in capitalization) for the two groups of electric utilities covered by AUS Utility Reports. As of early 2013, the most recent five-year average common equity ratios were:

Year	Electric	Combination Gas And Electric
2008	45%	43%
2009	46%	45%
2010	46%	46%
2011	47%	46%
2012	47%	46%

(Source: AUS Utility Reports)

These equity ratios were similar to those of PSE. This is indicative of similar financial risk.

VI. SELECTION OF PROXY GROUPS

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

A. PSE is not publicly-traded. Consequently, it is not possible to directly apply cost of equity models to this entity. PE also not publicly-traded. As a result, it is generally preferred to analyze groups of comparison or "proxy" companies as a substitute for PSE to determine its cost of common equity.

I have examined three such groups for comparison of PSE. I selected one group of electric and/or combination electric/natural gas utilities using the criteria listed on Exhibit No. ___ (DCP-6). These criteria[1] are as follows:

(1) Market "cap" of $1 billion to $5 billion;

(2) Electric revenues 50% or greater;

(3) Common equity ratio 40% or greater;

(4) Value Line Safety of 1, 2 or 3;

(5) Moody's and S&P's bond ratings of single-A or triple B; and

(6) Has paid dividends, and has not reduced dividends, in past five years.

Second, I have considered the proxy group of electric and combination utilities that ICNU witness Gorman employed in his April 26, 2013 Response Testimony in this proceeding.

Third, I have conducted studies of the cost of equity for the same combination electric and gas utilities proxy group that was selected by PSE witness Morin in his November 5, 2014 Direct Testimony, relative to his "first half of 2013" cost of capital analyses.

Q. Please explain why you are using three proxy groups in your cost of equity analyses.

A. It has long been my practice to develop my own independently-determined proxy group and to also conduct cost of equity analyses on the utility witness' proxy group. In addition, given the fact that ICNU witness Gorman filed Response Testimony during the 2013 hearing, I also considered his proxy group. My conclusions and recommendations, in turn, are based upon the results of all three proxy groups.

[1] Note: Both the criteria for selection and information for each potential proxy company were as of early 2013.

VII. 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. 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 annual dividend ($)

g = constant rate of expected growth (%)

This formula essentially recognizes that the return expected or required by investors is comprised of two factors: the 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 the groups 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 (i.e., time value of money).

The P_0 in my yield calculation is the average (of high and low) stock price for each proxy company for the three month period (January–March, 2013). The D_0 is the current annualized dividend 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 sustainable long term 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, all of which were available as of the first quarter of 2013. These are:

1. 2008–2012 (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. 2013, 2014 and 2016–2018 projections of earnings retention growth (per Value Line);
4. 2010–2012 to 2016–2018 projections of EPS, DPS, and BVPS (per Value Line); and
5. 5-year projections of EPS growth (per First Call).[2]

I believe this diverse 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

[2] For the Gorman and Morin proxy groups, I utilized the EPS growth projections that were contained in their respective testimonies, since past projections are not readily available from First Call.

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 DCF calculations.

A. Exhibit No. ___ (DCP-7) presents my DCF analysis. Page 1 shows the calculation of the "raw" (i.e., prior to adjustment for growth) dividend yield for each proxy company.

Pages 2 and 3 show the various growth rates for the groups of proxy companies. Pages 4 and 5 show the DCF calculations, which are presented on several bases: mean, median, and low/high values. These results can be summarized as follows:

	Mean	Median	Mean Low[3]	Mean High[4]	Median Low[2]	Median High[3]
Proxy Group	8.3%	8.2%	7.0%	9.6%	6.6%	9.7%
Gorman Group	8.5%	8.1%	7.7%	9.1%	7.2%	9.4%
Morin Group	8.6%	8.3%	7.8%	9.4%	7.5%	9.1%

I note that the individual DCF calculations shown on Exhibit No. ___ (DCP-7) 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 results in Exhibit No. ___ (DCP-7) indicate average (mean and median) DCF cost rates of 8.1 percent to 8.6 percent. The "high" DCF rates (i.e., using the highest growth rates only) are 9.1 percent and 9.7 percent on an average basis and median basis.

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3 Using only the lowest growth rate.
4 Using only the highest growth rate.

Q. What do you conclude from your DCF analyses?

A. This analysis reflects a broad DCF range of 8.1 percent to 9.7 percent for the proxy groups. This is approximated by the average/mean value and high values for the proxy groups examined in the previous analysis. I give less weight to the low values and average values of the groups. I believe that 9.1 percent to 9.7 percent (9.4 percent mid-point) reflects the proper DCF cost for PSE. This reflects the highest DCF results.

Q. Why do you focus on the highest DCF rates?

A. I focus on the highest DCF rates, as well as highest CE rates later in my testimony, in order to be conservative. Had I emphasized mean/median values, as other analysts might reasonably have done, my recommended cost of equity for PSE would have been lower.

VIII. 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 ("CAPM") 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 three 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 (January–March, 2013) for 20-year U.S. Treasury bonds. I used 20-year U.S. Treasury bonds yields since this is the maturity level employed by the MorningStar source used, in part, to develop the market risk premium. Over this three-month period, these bonds had an average yield of 2.75 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-8) shows the return on equity for the S&P 500 group for the period 1978–2012 (all available years reported by S&P as of early 2013). This schedule 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 6.6 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 long-term (20-year) government bonds, as tabulated by MorningStar (formerly Ibbotson Associates), using both arithmetic and geometric means. I have considered the total returns for the entire available 1926–2012 period (i.e., most recent period as of early 2013), which are as follows:

	S&P 500	L-T Gov't Bonds	Risk Premium
Arithmetic	11.8%	6.1%	5.7%
Geometric	9.8%	5.7%	4.1%

I conclude from this that the expected risk premium is about 5.5 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.

Investors are routinely provided investment return rates using both arithmetic and geometric averages. I note, for example, that mutual funds report returns on a geometric basis. In addition, Value Line calculates both its historic and estimated EPS growth rates on a compound (i.e., geometric basis).

Q. What are your CAPM results?

A. Exhibit No. ___ (DCP-9) shows my CAPM calculations. The results are:

	Mean	Median
Proxy Group	6.8%	6.6%
Gorman Group	6.6%	6.6%
Morin Group	6.6%	6.5%

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

A. The result of my CAPM analyses collectively indicates a cost of 6.5 percent to 6.8 percent for the groups of proxy utilities. I conclude that the CAPM cost of equity for PSE is 6.8 percent as of early 2013.

IX. COMPARABLE EARNINGS ANALYSIS

Q. Please describe the basis of the CE methodology.

A. The CE method is derived from the "corresponding risk" concept discussed in the *Bluefield* and *Hope* cases. This method is thus based upon the economic concept of opportunity cost. As previously noted, the 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, it provides a direct measure of the fair return, since it translates into practice the competitive principle upon which regulation rests.

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 to (multiplied by) 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–rate of return methodology used to set utility rates.

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

A. I apply the CE methodology by examining realized returns on equity for the three groups of proxy electric and combination electric/gas utilities, as well as unregulated companies, and evaluating 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 percent) 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 at or above book value. There is no regulatory obligation to set rates designed to maintain a market-to-book ratio significantly above one.

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

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

A. My CE analysis considers the experienced equity returns of the proxy groups of utilities for the period 2002–2012 (i.e., the last 11 years as of early 2013). 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 early 2013 cost of equity, I focused on two prior periods: 2009–2012 (the then-current cycle) and 2002–2008 (the most recent complete business cycle). I have also considered the prospective returns on equity for 2013, 2014, and 2016–2018 (i.e., Value Line estimates as of early 2013).

Q. Please describe your CE analysis.

A. Exhibit Nos. ___ (DCP-10) and (DCP-11) contain summaries of experienced returns on equity for four groups of companies, while Exhibit No. ___ (DCP-12) presents a risk comparison of utilities versus unregulated firms.

Exhibit No. ___ (DCP-10) shows the earned returns on average common equity and market-to-book ratios for the groups of proxy utilities. These can be summarized as follows:

	Proxy Group	Gorman Group	Morin Group
Historic ROE			
Mean	8.3–9.1%	9.4–9.8%	10.0–10.3%
Median	8.8–9.2%	9.5–9.9%	9.8–10.2%
Historic M/B			
Mean	124–152%	130–148%	142–155%
Median	121–143%	129–141%	139–151%
Prospective ROE			
Mean	8.7–9.6%	9.1–9.9%	9.9–10.4%
Median	9.0%	9.0–9.8%	9.5–10.0%

These results indicate that historic returns of 8.3 percent to 10.3 percent (page 1 of Exhibit No. ___ (DCP-10)) have been adequate to produce market-to-book ratios of 121 percent to 155 percent (page 2 of Exhibit No. ___ (DCP-10)) for the groups of utilities. Furthermore, projected returns on equity for 2013, 2014 and 2016–2018 are within a range of 8.7 percent to 10.4 percent for the utility groups. These relate to 2012 market-to-book ratios of 136 percent or greater (page 2 of Exhibit No. ___ (DCP-10)).

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

A. Yes. As an alternative, I also examined the S&P 500 Composite group. 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-11) presents the earned returns on equity and market-to-book ratios for the S&P 500 group over the 2002–2012 period. As this schedule indicates, over the two business cycle periods, this group's average earned returns ranged from 12.4 percent to 13.2 percent, with average market-to-book ratios ranging between 204 percent and 275 percent.

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

A. The recent earnings of the proxy utilities and S&P 500 groups can be viewed as an indication of the level of return realized and expected in the regulated and competitive sectors of the economy. In order to apply these returns to the cost of equity for the proxy utilities, however, it is necessary to compare the risk levels of the utilities and the competitive companies. I do this in Exhibit No. ___ (DCP-12), which compares several risk indicators for the S&P 500 group and the utility groups. The information on page 2 of Exhibit No. ___ (DCP-12) indicates that the S&P 500 group is more risky than the utility proxy groups.

Q. What cost of equity is indicated by your CE analysis?

A. Based on recent earnings and market-to-book ratios, my CE analysis indicates that the cost of equity for the proxy utilities is no more than 9.0 percent to 10.0 percent. Recent returns of 8.3 percent to 10.3 percent have resulted in market-to-book ratios of more than 120 percent. Prospective returns of 8.7 percent to 10.4 percent have been accompanied by most recent market-to-book ratios over 136 percent. As a result, it is apparent that authorized returns below this level would continue to result in market-to-book ratios of well above 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 10.0 percent reflect earnings levels that are well above the actual cost of equity for those regulated companies. I also note that a company whose stock sells above book value can attract capital in a way that enhances the book value of existing stockholders, thus creating a favorable environment for financial integrity. Finally, I note that my 9.0 percent to 10.0 percent CE finding does not incorporate any market-to-book "adjustment," as it approximates the historic and projected returns on equity for the utility proxy groups.

X. RETURN ON EQUITY RECOMMENDATION

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

A. My three analyses produce the following results:

DCF	9.1–9.7%	(9.4% mid-point)
CAPM	6.5–6.8%	(6.7% mid-point)
CE	9.0–10.0%	(9.5% mid-point)

These results indicate an overall broad range of 6.5 percent to 10.0 percent, which focuses on the respective ranges of my individual model results. Focusing on the respective midpoints, the range is 6.7 percent to 9.5 percent. I recommend a return on equity range of 9.0 percent to 10.0 percent for PSE as of the early 2013 time frame. Though this recommendation is higher than my CAPM findings, it approximates the lower end of my DCF and CE ranges (9.0 percent) and the upper end of my CE range

(10.0 percent). The mid-point of my range is 9.5 percent, which is my recommended cost of common equity.

Q. Does your cost of equity range of 9.0 percent to 10.0 percent contain the 9.8 percent cost of equity that was maintained by the Commission in Order 07 of the proceeding?

A. Yes, it does. It is my understanding that the last authorized cost of equity for PSE was cited in Order 08 in Dockets UE-111048 and UG-111049, which were decided in 2012. This 9.8 percent cost of equity was maintained in Order 07 in the current proceeding. As my Exhibit No. ___(DCP-13) indicates, authorized returns on equity were generally declining from 2012 to 2013. Nevertheless, I note that my recommended range of 9.0 percent to 10.0 percent does include 9.8 percent.

Q. Have you reviewed the authorized returns on equity for electric and gas utilities in the early 2013 timeframe?

A. Yes, I have. My Exhibit No. ___ (DCP-13) shows the quarterly averages of returns on equity authorized by state commissions in 2012 and 2013 (note that this exhibit goes through the end of 2013 since some decisions are rendered up to several months after the respective hearings). This exhibit indicates that average authorized equity awards were generally in the 9½ percent to 10 percent range during this period.

Q. Does this conclude your direct testimony?

A. Yes, it does.

Exhibit No. ___ (DCP-3)
Dockets UE-121697, et al.
Witness: David C. Parcell

BEFORE THE WASHINGTON UTILITIES AND TRANSPORTATION COMMISSION

WASHINGTON UTILITIES AND TRANSPORTATION COMMISSION, **Complainant,** **v.** **PUGET SOUND ENERGY,** **Respondent.**	**DOCKETS UE-121697 and UG-121705 (*consolidated*)**
WASHINGTON UTILITIES AND TRANSPORTATION COMMISSION, **Complainant,** **v.** **PUGET SOUND ENERGY, INC.** **Respondent.**	**DOCKETS UE-130137 and UG-130138 (*consolidated*)**

EXHIBIT TO
TESTIMONY OF

David C. Parcell

ON BEHALF OF THE STAFF OF WASHINGTON UTILITIES AND TRANSPORTATION COMMISSION

PSE History of Credit Ratings

December 3, 2014

PUGET SOUND ENERGY, INC.

HISTORY OF SECURITY RATINGS

	Moody's		Standard & Poor's	
Date	Issuer Rating	Senior Secured	Issuer Rating	Senior Secured
As of 12/31/07	Baa3	Baa2	BBB-	BBB+
As of 12/31/08	Baa3	Baa2	BBB-	BBB+
As of 01/16/09	Baa3	Baa2	BBB	A-
As of 8/3/09	Baa3	Baa1	BBB	A-
As of 3/16/11	Baa2	A3	BBB	A-
As of 3/31/13	Baa2	A3	BBB	A-

Source: Response to UTC Staff Data Request No. 3, Attachment A.

Exhibit No. ___ (DCP-4)
Dockets UE-121697, et al.
Witness: David C. Parcell

BEFORE THE WASHINGTON UTILITIES AND TRANSPORTATION COMMISSION

WASHINGTON UTILITIES AND TRANSPORTATION COMMISSION, **Complainant,** **v.** **PUGET SOUND ENERGY,** **Respondent.**	**DOCKETS UE-121697 and UG-121705 (*consolidated*)**
WASHINGTON UTILITIES AND TRANSPORTATION COMMISSION, **Complainant,** **v.** **PUGET SOUND ENERGY, INC.** **Respondent.**	**DOCKETS UE-130137 and UG-130138 (*consolidated*)**

EXHIBIT TO
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David C. Parcell

ON BEHALF OF THE STAFF OF WASHINGTON UTILITIES AND TRANSPORTATION COMMISSION

PSE Capital Structure Ratios

December 3, 2014

PUGET SOUND ENERGY, INC.
CAPITAL STRUCTURE RATIOS
2008 - 2012
($000)

YEAR	COMMON EQUITY	PREFERRED STOCK	LONG-TERM DEBT	SHORT-TERM DEBT
2008	$2,546,820	$1,889	$2,768,131	$375,236
	44.7%	0.0%	48.6%	6.6%
	47.9%	0.0%	52.1%	
2009	$2,923,025	$236	$2,901,443	$241,506
	48.2%	0.0%	47.8%	4.0%
	50.2%	0.0%	49.8%	
2010	$2,968,785		$3,314,652	$137,069
	46.2%		51.6%	2.1%
	47.2%		52.8%	
2011	$3,220,273		$3,509,682	$159,106
	46.7%		50.9%	2.3%
	47.8%		52.2%	
2012	$3,313,645		$3,773,846	$94,048
	46.1%		52.5%	1.3%
	46.8%		53.2%	

Source: Response to UTC Staff Data Request No. 2, Attachment A.

Exhibit No. ___ (DCP-5)
Dockets UE-121697, et al.
Witness: David C. Parcell

BEFORE THE WASHINGTON UTILITIES AND TRANSPORTATION COMMISSION

WASHINGTON UTILITIES AND TRANSPORTATION COMMISSION, **Complainant,** **v.** **PUGET SOUND ENERGY,** **Respondent.**	**DOCKETS UE-121697 and UG-121705 (*consolidated*)**
WASHINGTON UTILITIES AND TRANSPORTATION COMMISSION, **Complainant,** **v.** **PUGET SOUND ENERGY, INC.** **Respondent.**	**DOCKETS UE-130137 and UG-130138 (*consolidated*)**

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ON BEHALF OF THE STAFF OF WASHINGTON UTILITIES AND TRANSPORTATION COMMISSION

AUS Utility Reports Electric Utility Groups
Average Common Equity Ratios

December 3, 2014

AUS UTILITY REPORTS
ELECTRIC UTILITY GROUPS
AVERAGE COMMON EQUITY RATIOS

Year	Electric	Combination Electric and Gas
2008	45%	43%
2009	46%	45%
2010	46%	46%
2011	47%	46%
2012	47%	46%

Note: Averages include short-term debt.

Source: AUS Utility Reports.

Exhibit No. ___ (DCP-6)
Dockets UE-121697, et al.
Witness: David C. Parcell

BEFORE THE WASHINGTON UTILITIES AND TRANSPORTATION COMMISSION

WASHINGTON UTILITIES AND TRANSPORTATION COMMISSION, **Complainant,** **v.** **PUGET SOUND ENERGY,** **Respondent.**	**DOCKETS UE-121697 and UG-121705 (*consolidated*)**
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EXHIBIT TO
TESTIMONY OF

David C. Parcell

ON BEHALF OF THE STAFF OF WASHINGTON UTILITIES AND TRANSPORTATION COMMISSION

Proxy Companies Basis for Selection

December 3, 2014

PROXY COMPANIES
BASIS FOR SELECTION

Company	Market Capitalization ($ millions)	Percent Reg Electric Revenues	Common Equity Ratio	Value Line Safety	S&P Bond Rating	Moody's Bond Rating
Puget Sound Energy						
Parcell Proxy Group						
ALLETE	$1,900,000	91%	56%	2	A-	A2
Avista	$1,500,000	63%	49%	2	A-	A3
Black Hills Corp	$1,700,000	52%	53%	3	BBB+	A3
Cleco Corp	$2,700,000	95%	54%	1	BBB	Baa2
Hawaiian Electric Industries	$2,500,000	92%	54%	2	BBB-	baa2
IDACORP	$2,200,000	100%	54%	3	A-	A2
NorthWestern Corp	$1,400,000	75%	47%	3	A-	A2
Otter Tail Corp	$1,100,000	71%	55%	3	BBB-	Baa2
Pepco Holdings	$4,500,000	83%	51%	3	A-/BBB+	Baa1/Baa2
Portland General Corp	$2,100,000	100%	53%	2	A-	A3
TECO Energy	$3,700,000	65%	44%	2	BBB+	A3
UIL Holdings	$1,900,000	53%	42%	2	BBB	Baa2
Westar Energy	$4,000,000	100%	49%	2	BBB+	A3
Gorman Proxy Group						
ALLETE	$1,900,000	91%	56%	2	A-	A2
Alliant Energy Corp	$5,400,000	84%	48%	2	A-	A2/A3
American Electric Power Co.	$23,000,000	92%	49%	3	BBB	Baa2
Avista Corp	$1,500,000	63%	49%	2	A-	A3
Cleco Corp	$2,700,000	95%	54%	1	BBB	Baa2
CMS Energy	$7,100,000	64%	34%	3	BBB/BBB-	Baa2
Consolidated Edison	$17,000,000	72%	54%	1	A-	A3/Baa1
DTE Energy	$12,000,000	60%	51%	2	A	A2
Edison International	$15,000,000	98%	45%	3	BBB+	A1
Great Plains Energy, Inc.	$3,500,000	100%	54%	3	BBB/BBB-	Baa1/Baa2
IDACORP, Inc.	$2,200,000	100%	54%	3	A-	A2
Integrys Energy Group	$4,400,000	29%	60%	2	A-	A2/A3
Northeast Utilities	$13,000,000	89%	54%	2	A-	A3
NorthWestern Corp	$1,400,000	75%	47%	3	A-	A2
PG&E Corp	$18,000,000	80%	51%	3	BBB/BBB-	A3/Baa1
Pinnacle West Capital Corp	$5,800,000	100%	56%	2	BBB+	Baa1
Portland General Electric	$2,100,000	100%	53%	2	A-	A3
TECO Energy	$3,700,000	65%	44%	2	BBB+	A3
UIL Holdings	$1,900,000	53%	42%	2	BBB	Baa2
Westar Energy	$4,000,000	100%	49%	2	BBB+	A3
Wisconsin Energy Corp	$9,500,000	75%	48%	1	A-/BBB+	A2/A3
Xcel Energy Inc.	$13,000,000	84%	47%	2	A-	A3
Morin Proxy Group						
Alliant Energy Corp	$5,400,000	84%	48%	2	A-	A2/A3
Avista Corp	$1,500,000	63%	49%	2	A-	A3
Black Hills Corp.	$1,700,000	52%	53%	3	BBB+	A3
CenterPoint Energy	$9,300,000	30%	34%	2	BBB+	Baa1/Baa2
CMS Energy	$7,100,000	64%	34%	3	BBB/BBB-	Baa2
Consolidated Edison	$17,000,000	72%	54%	1	A-	A3/Baa1
Dominion Resources	$31,000,000	54%	39%	2	A	Baa1/Baa2
DTE Energy	$12,000,000	60%	51%	2	A	A2
Duke Energy	$49,000,000	80%	53%	2	A-	A3
Integrys Energy Group	$4,400,000	29%	60%	2	A-	A2/A3
MGE Energy	$1,300,000	72%	62%	1	AA-	A1
Northeast Utilities	$13,000,000	89%	54%	2	A-	A3
NorthWestern Corp	$1,400,000	75%	47%	3	A-	A2
NV Energy	$4,900,000	96%	43%	3	BBB	Baa1
OGE Energy	$6,000,000	58%	49%	2	BBB	Baa1
Pepco Holdings	$4,500,000	83%	51%	3	A-/BBB+	Baa1/Baa2
PG&E Corp	$18,000,000	80%	51%	3	BBB/BBB-	A3/Baa1
SCANA Corp.	$6,300,000	59%	45%	2	BBB+	Baa1/Baa2
Sempra Energy	$18,000,000	33%	47%	2	A/A-	A2
TECO Energy	$3,700,000	65%	44%	2	BBB	Baa2
UIL Holdings	$1,900,000	53%	42%	2	BBB	Baa2
UNS Energy	$2,100,000	91%	38%	3	BBB-	Baa2
Vectren Corp.	$2,800,000	27%	50%	2	A/A-	A2
Wisconsin Energy Corp	$9,500,000	75%	48%	1	A-/BBB+	A2/A3
Xcel Energy Inc.	$13,000,000	84%	47%	2	A-	A3

Sources: AUS Utility Reports, Value Line.

Exhibit No. ___ (DCP-7)
Dockets UE-121697, et al.
Witness: David C. Parcell

BEFORE THE WASHINGTON UTILITIES AND TRANSPORTATION COMMISSION

WASHINGTON UTILITIES AND TRANSPORTATION COMMISSION, **Complainant,** **v.** **PUGET SOUND ENERGY,** **Respondent.**	**DOCKETS UE-121697 and UG-121705 (*consolidated*)**
WASHINGTON UTILITIES AND TRANSPORTATION COMMISSION, **Complainant,** **v.** **PUGET SOUND ENERGY, INC.** **Respondent.**	**DOCKETS UE-130137 and UG-130138 (*consolidated*)**

EXHIBIT TO
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David C. Parcell

ON BEHALF OF THE STAFF OF WASHINGTON
UTILITIES AND TRANSPORTATION COMMISSION

Proxy Companies DCF Cost Rate

December 3, 2014

COMPARISON COMPANIES
DIVIDEND YIELD

COMPANY	Qtr DPS	January - March, 2013 DPS	HIGH	LOW	AVERAGE	YIELD
Parcell Proxy Group						
ALLETE	$0.475	$1.90	$49.50	$41.39	$45.45	4.2%
Avista	$0.305	$1.22	$27.48	$24.10	$25.79	4.7%
Black Hills Corp	$0.380	$1.52	$44.32	$36.89	$40.61	3.7%
Cleco	$0.338	$1.35	$47.17	$40.39	$43.78	3.1%
Hawaiian Electric	$0.310	$1.24	$27.92	$25.50	$26.71	4.6%
IDACORP	$0.380	$1.52	$48.53	$43.13	$45.83	3.3%
NorthWestern Corp	$0.380	$1.52	$40.35	$35.06	$37.71	4.0%
Otter Tail Corp	$0.297	$1.19	$31.34	$25.17	$28.26	4.2%
Pepco Holdings	$0.270	$1.08	$21.43	$18.82	$20.13	5.4%
Portland General Corp	$0.270	$1.08	$30.53	$27.42	$28.98	3.7%
TECO Energy	$0.220	$0.88	$17.87	$16.71	$17.29	5.1%
UIL Holdings	$0.432	$1.73	$39.89	$35.86	$37.88	4.6%
Westar Energy	$0.340	$1.36	$33.35	$28.59	$30.97	4.4%
Average						**4.2%**
Gorman Proxy Group						
ALLETE	$0.475	$1.90	$49.50	$41.39	$45.45	4.2%
Alliant Energy Corp	$0.470	$1.88	$50.23	$43.73	$46.98	4.0%
American Electric Power Co.	$0.470	$1.88	$48.68	$42.92	$45.80	4.1%
Avista Corp	$0.305	$1.22	$27.48	$24.10	$25.79	4.7%
Cleco Corp	$0.338	$1.35	$47.17	$40.39	$43.78	3.1%
CMS Energy	$0.255	$1.02	$27.95	$24.60	$26.28	3.9%
Consolidated Edison	$0.615	$2.46	$61.13	$54.95	$58.04	4.2%
DTE Energy	$0.620	$2.48	$68.38	$60.33	$64.36	3.9%
Edison International	$0.338	$1.35	$51.24	$44.92	$48.08	2.8%
Great Plains Energy, Inc.	$0.217	$0.87	$23.20	$20.39	$21.80	4.0%
IDACORP, Inc.	$0.380	$1.52	$48.53	$43.13	$45.83	3.3%
Integrys Energy Group	$0.680	$2.72	$58.27	$52.55	$55.41	4.9%
Northeast Utilities	$0.367	$1.47	$43.49	$38.60	$41.05	3.6%
NorthWestern Corp	$0.380	$1.52	$40.35	$35.06	$37.71	4.0%
PG&E Corp	$0.455	$1.82	$44.57	$40.29	$42.43	4.3%
Pinnacle West Capital Corp	$0.545	$2.18	$57.96	$51.50	$54.73	4.0%
Portland General Electric	$0.270	$1.08	$30.53	$27.42	$28.98	3.7%
TECO Energy	$0.220	$0.88	$17.87	$16.71	$17.29	5.1%
UIL Holdings	$0.432	$1.73	$39.89	$35.86	$37.88	4.6%
Westar Energy	$0.340	$1.36	$33.35	$28.59	$30.97	4.4%
Wisconsin Energy Corp	$0.340	$1.36	$42.95	$37.03	$39.99	3.4%
Xcel Energy Inc.	$0.270	$1.08	$29.74	$26.77	$28.26	3.8%
Average						**4.0%**
Morin Proxy Group						
Alliant Energy Corp	$0.470	$1.88	$50.23	$43.73	$46.98	4.0%
Avista Corp	$0.305	$1.22	$27.48	$24.10	$25.79	4.7%
Black Hills Corp.	$0.380	$1.52	$44.32	$36.89	$40.61	3.7%
CenterPoint Energy	$0.207	$0.83	$24.05	$19.34	$21.70	3.8%
CMS Energy	$0.255	$1.02	$27.95	$24.60	$26.28	3.9%
Consolidated Edison	$0.615	$2.46	$61.13	$54.95	$58.04	4.2%
Dominion Resources	$0.563	$2.25	$58.25	$51.92	$55.09	4.1%
DTE Energy	$0.620	$2.48	$68.38	$60.33	$64.36	3.9%
Duke Energy	$0.765	$3.06	$72.68	$64.44	$68.56	4.5%
Integrys Energy Group	$0.680	$2.72	$58.27	$52.55	$55.41	4.9%
MGE Energy	$0.263	$1.05	$55.87	$50.89	$53.38	2.0%
Northeast Utilities	$0.367	$1.47	$43.49	$38.60	$41.05	3.6%
NorthWestern Corp	$0.380	$1.52	$40.35	$35.06	$37.71	4.0%
NV Energy	$0.190	$0.76	$20.34	$18.28	$19.31	3.9%
OGE Energy	$0.209	$0.83	$70.16	$55.39	$62.78	1.3%
Pepco Holdings	$0.270	$1.08	$21.43	$18.82	$20.13	5.4%
PG&E Corp	$0.455	$1.82	$44.57	$40.29	$42.43	4.3%
SCANA Corp.	$0.507	$2.03	$51.23	$45.57	$48.40	4.2%
Sempra Energy	$0.630	$2.52	$80.21	$70.61	$75.41	3.3%
TECO Energy	$0.220	$0.88	$17.87	$16.71	$17.29	5.1%
UIL Holdings	$0.432	$1.73	$39.89	$35.86	$37.88	4.6%
UNS Energy	$0.435	$1.74	$36.96	$31.76	$34.36	5.1%
Vectren Corp.	$0.355	$1.42	$35.45	$29.47	$32.46	4.4%
Wisconsin Energy Corp	$0.340	$1.36	$42.95	$37.03	$39.99	3.4%
Xcel Energy Inc.	$0.270	$1.08	$29.74	$26.77	$28.26	3.8%
Average						**4.0%**

Source: Yahoo! Finance.

COMPARISON COMPANIES
RETENTION GROWTH RATES

COMPANY	2008	2009	2010	2011	2012	Average	2013	2014	2016-'18	Average
Parcell Proxy Group										
ALLETE	3.9%	0.5%	1.5%	2.9%	2.3%	2.2%	2.0%	2.5%	4.0%	2.8%
Avista	3.7%	4.1%	3.3%	3.1%	1.5%	3.1%	2.5%		3.0%	2.8%
Black Hills Corp	0.0%	3.2%	0.7%	0.0%	1.5%	1.1%	1.5%	3.0%	3.5%	2.7%
Cleco	4.5%	4.7%	6.1%	6.3%	5.5%	5.4%	4.5%	4.5%	5.0%	4.7%
Hawaiian Electric	0.5%	0.0%	1.4%	2.1%	2.5%	1.3%	2.5%		3.5%	3.0%
IDACORP	3.4%	4.8%	5.5%	6.5%	5.5%	5.1%	4.5%		3.5%	4.0%
NorthWestern Corp	2.3%	3.2%	3.5%	4.7%	2.5%	3.2%	3.0%		4.0%	3.5%
Otter Tail Corp	0.0%	0.0%	0.0%	0.0%	0.0%		1.0%	1.5%	3.0%	1.8%
Pepco Holdings	4.2%	0.0%	0.8%	0.3%	1.0%	1.3%	1.5%	1.5%	2.5%	1.8%
Portland General Corp	2.0%	1.5%	3.0%	4.1%	3.5%	2.8%	3.5%		4.0%	3.8%
TECO Energy	0.0%	2.1%	3.1%	3.9%	2.4%	2.3%	1.0%	2.0%	4.0%	2.3%
UIL Holdings	1.0%	1.2%	1.7%	1.1%	1.5%	1.3%	2.0%	2.5%	3.0%	2.5%
Westar Energy	1.2%	0.8%	3.1%	2.7%	4.0%	2.4%	3.0%	3.0%	4.0%	3.3%
Average						**2.6%**				**3.0%**
Gorman Proxy Group										
ALLETE	3.9%	0.5%	1.5%	2.9%	2.3%	2.2%	2.0%	2.5%	4.0%	2.8%
Alliant Energy Corp	3.8%	0.9%	3.8%	3.3%	3.9%	3.1%	4.0%	4.0%	4.0%	4.0%
American Electric Power Co.	5.1%	4.6%	3.1%	4.2%	3.5%	4.1%	3.5%	4.0%	4.0%	3.8%
Avista Corp	3.7%	4.1%	3.3%	3.1%	1.5%	3.1%	2.5%		3.0%	2.8%
Cleco Corp	4.5%	4.7%	6.1%	6.3%	5.5%	5.4%	4.5%	4.5%	5.0%	4.7%
CMS Energy	8.4%	4.1%	6.9%	5.6%	5.0%	6.0%	5.5%	5.5%	5.0%	5.3%
Consolidated Edison	3.1%	2.5%	3.2%	3.1%	3.5%	3.1%	3.0%	3.5%	3.5%	3.3%
DTE Energy	1.7%	2.9%	4.0%	3.4%	3.5%	3.1%	3.0%	3.5%	3.5%	3.3%
Edison International	8.6%	6.7%	6.5%	6.3%	6.5%	6.9%	6.0%		6.0%	6.0%
Great Plains Energy, Inc.	0.0%	0.9%	3.4%	2.0%	2.2%	1.7%	3.0%	2.5%	2.8%	2.8%
IDACORP, Inc.	3.4%	4.8%	5.5%	6.5%	5.5%	5.1%	4.5%		3.5%	4.0%
Integrys Energy Group	0.0%	0.0%	2.3%	0.7%	2.6%	1.1%	2.0%	2.0%	2.5%	2.2%
Northeast Utilities	5.3%	4.7%	5.0%	5.0%	2.0%	4.4%	3.5%	3.5%	4.0%	3.7%
NorthWestern Corp	2.3%	3.2%	3.5%	4.7%	2.5%	3.2%	3.0%		4.0%	3.5%
PG&E Corp	6.8%	5.5%	3.9%	3.4%	2.5%	4.4%	3.0%		4.0%	3.5%
Pinnacle West Capital Corp	0.3%	0.7%	3.1%	2.8%	3.5%	2.1%	3.5%	3.5%	3.5%	3.5%
Portland General Electric	2.0%	1.5%	3.0%	4.1%	3.5%	2.8%	3.5%		4.0%	3.8%
TECO Energy	0.0%	2.1%	3.1%	3.9%	2.4%	2.3%	1.0%	2.0%	4.0%	2.3%
UIL Holdings	1.0%	1.2%	1.7%	1.1%	1.5%	1.3%	2.0%	2.5%	3.0%	2.5%
Westar Energy	1.2%	0.8%	3.1%	2.7%	4.0%	2.4%	3.0%	3.0%	4.0%	3.3%
Wisconsin Energy Corp	7.0%	6.2%	7.0%	6.8%	6.5%	6.7%	5.5%	5.5%	4.5%	5.2%
Xcel Energy Inc.	3.8%	3.7%	3.6%	4.3%	4.0%	3.9%	4.0%		4.0%	4.0%
Average						**3.6%**				**3.6%**
Morin Proxy Group										
Alliant Energy Corp	3.8%	0.9%	3.8%	3.3%	3.9%	3.1%	4.0%	4.0%	4.0%	4.0%
Avista Corp	3.7%	4.1%	3.3%	3.1%	1.5%	3.1%	2.5%		3.0%	2.8%
Black Hills Corp.	0.0%	3.2%	0.7%	0.0%	1.5%	1.1%	1.5%	3.0%	3.5%	2.7%
CenterPoint Energy	9.9%	3.6%	3.8%	5.0%	5.5%	5.6%	4.5%	4.5%	5.0%	4.7%
CMS Energy	8.4%	4.1%	6.9%	5.6%	5.0%	6.0%	5.5%	5.5%	5.0%	5.3%
Consolidated Edison	3.1%	2.5%	3.2%	3.1%	3.5%	3.1%	3.0%	3.5%	3.5%	3.3%
Dominion Resources	8.4%	4.7%	5.3%	4.0%	3.4%	5.2%	4.5%	4.5%	5.0%	4.7%
DTE Energy	1.7%	2.9%	4.0%	3.4%	3.5%	3.1%	3.0%	3.5%	3.5%	3.3%
Duke Energy	0.6%	1.1%	2.1%	2.2%	1.0%	1.4%	2.0%	2.0%	3.0%	2.3%
Integrys Energy Group	0.0%	0.0%	2.3%	0.7%	2.6%	1.1%	2.0%	2.0%	2.5%	2.2%
MGE Energy	4.4%	3.4%	4.4%	4.7%	4.9%	4.4%	5.0%	4.5%	5.0%	4.8%
Northeast Utilities	5.3%	4.7%	5.0%	5.0%	2.0%	4.4%	3.5%	3.5%	4.0%	3.7%
NorthWestern Corp	2.3%	3.2%	3.5%	4.7%	2.5%	3.2%	3.0%		4.0%	3.5%
NV Energy	4.1%	2.7%	3.6%	1.4%	5.0%	3.4%	3.5%		3.5%	3.5%
OGE Energy	5.4%	6.0%	6.7%	7.7%	7.2%	6.6%	6.0%	5.5%	5.0%	5.5%
Pepco Holdings	4.2%	0.0%	0.8%	0.3%	1.0%	1.3%	1.5%	1.5%	2.5%	1.8%
PG&E Corp	6.8%	5.5%	3.9%	3.4%	2.5%	4.4%	3.0%		4.0%	3.5%
SCANA Corp.	4.4%	3.6%	3.8%	3.6%	4.0%	3.9%	4.0%	4.0%	4.5%	4.2%
Sempra Energy	9.7%	9.3%	7.0%	6.5%	4.5%	7.4%	4.5%		6.0%	5.3%
TECO Energy	0.0%	2.1%	3.1%	3.9%	2.4%	2.3%	1.0%	2.0%	4.0%	2.3%
UIL Holdings	1.0%	1.2%	1.7%	1.1%	1.5%	1.3%	2.0%	2.5%	3.0%	2.5%
UNS Energy	0.0%	8.4%	6.7%	5.4%	2.0%	4.5%	3.5%	5.5%	4.5%	4.5%
Vectren Corp.	2.0%	2.6%	1.6%	1.9%	2.9%	2.2%	3.0%	3.5%	4.0%	3.5%
Wisconsin Energy Corp	7.0%	6.2%	7.0%	6.8%	6.5%	6.7%	5.5%	5.5%	4.5%	5.2%
Xcel Energy Inc.	3.8%	3.7%	3.6%	4.3%	4.0%	3.9%	4.0%	0.0%	4.0%	2.7%
Average						**3.7%**				**3.7%**

Source: Value Line Investment Survey, as of February and March of 2013.

COMPARISON COMPANIES
PER SHARE GROWTH RATES

COMPANY	5-Year Historic Growth Rates EPS	DPS	BVPS	Average	Est'd '10-'12 to '16-'18 Growth Rates EPS	DPS	BVPS	Average
Parcell Proxy Group								
ALLETE	-2.5%	4.5%	5.5%	2.5%	7.0%	3.5%	4.0%	4.8%
Avista	9.5%	12.5%	4.0%	8.7%	3.5%	5.0%	3.0%	3.8%
Black Hills Corp	-4.0%	2.5%	4.0%	0.8%	9.0%	2.0%	2.0%	4.3%
Cleco	10.0%	2.0%	10.0%	7.3%	7.0%	10.5%	5.5%	7.7%
Hawaiian Electric	-3.0%	0.0%	1.5%	-0.5%	9.0%	2.0%	4.5%	5.2%
IDACORP	8.5%	0.0%	5.0%	4.5%	2.0%	8.0%	4.5%	4.8%
NorthWestern Corp		13.0%	2.0%	7.5%	5.0%	4.5%	4.5%	4.7%
Otter Tail Corp	-18.5%	0.5%	-1.0%	-6.3%	20.0%	1.5%	2.0%	7.8%
Pepco Holdings	-4.5%	1.5%	0.5%	-0.8%	6.0%	1.0%	1.5%	2.8%
Portland General Corp	8.5%		2.0%	5.3%	5.5%	3.5%	3.5%	4.2%
TECO Energy	3.5%	1.5%	6.5%	3.8%	3.5%	2.0%	2.5%	2.7%
UIL Holdings	4.5%	0.0%	-0.5%	1.3%	4.0%	0.0%	4.5%	2.8%
Westar Energy	1.5%	5.0%	4.5%	3.7%	5.0%	3.0%	4.0%	4.0%
Average				**2.9%**				**4.6%**
Gorman Proxy Group								
ALLETE	-2.5%	4.5%	5.5%	2.5%	7.0%	4.5%	5.5%	5.7%
Alliant Energy Corp	4.0%	8.0%	3.5%	5.2%	4.5%	4.5%	4.0%	4.3%
American Electric Power Co.	1.0%	4.0%	4.5%	3.2%	4.5%	4.0%	4.0%	4.2%
Avista Corp	9.5%	12.5%	4.0%	8.7%	3.5%	5.0%	3.0%	3.6%
Cleco Corp	10.0%	2.0%	10.0%	7.3%	7.0%	10.5%	5.5%	7.7%
CMS Energy	8.5%		2.0%	5.3%	7.0%	10.0%	5.0%	7.3%
Consolidated Edison	4.5%	1.0%	4.5%	3.3%	3.5%	1.5%	3.5%	2.8%
DTE Energy	6.0%	2.0%	4.0%	4.0%	4.0%	4.5%	4.0%	4.2%
Edison International	6.0%	5.5%	8.5%	6.7%	2.5%	4.5%	2.0%	3.0%
Great Plains Energy, Inc.	-6.0%	-12.5%	5.0%	-4.5%	6.5%	6.0%	2.5%	5.0%
IDACORP, Inc.	8.5%	0.0%	5.0%	4.5%	2.0%	8.0%	4.5%	4.8%
Integrys Energy Group	-0.5%	3.0%	0.5%	1.0%	3.5%	0.5%	3.0%	2.3%
Northeast Utilities	18.0%	8.5%	3.5%	10.0%	6.5%	8.5%	7.5%	7.5%
NorthWestern Corp		13.0%	2.0%	7.5%	5.0%	4.5%	4.5%	4.7%
PG&E Corp	3.5%	16.0%	6.5%	8.7%	3.5%	2.0%	4.0%	3.2%
Pinnacle West Capital Corp	1.0%	1.5%		1.3%	6.5%	3.0%	3.5%	4.3%
Portland General Electric	8.5%		2.0%	5.3%	5.5%	3.5%	3.5%	4.2%
TECO Energy	3.5%	1.5%	6.5%	3.8%	3.5%	2.0%	2.5%	2.7%
UIL Holdings	4.5%	0.0%	-0.5%	1.3%	4.0%	0.0%	4.5%	2.8%
Westar Energy	1.5%	5.0%	4.5%	3.7%	5.0%	3.0%	4.0%	4.0%
Wisconsin Energy Corp	10.0%	17.0%	7.0%	11.3%	6.5%	13.0%	3.5%	7.7%
Xcel Energy Inc.	4.5%	3.5%	4.5%	4.2%	6.0%	5.0%	4.5%	5.2%
Average				**4.7%**				**4.6%**
Morin Proxy Group								
Alliant Energy Corp	4.0%	8.0%	3.5%	5.2%	4.5%	4.5%	4.0%	4.3%
Avista Corp	9.5%	12.5%	4.0%	8.7%	3.5%	5.0%	3.0%	3.8%
Black Hills Corp.	-4.0%	2.5%	4.0%	0.8%	9.0%	2.0%	2.0%	4.3%
CenterPoint Energy	3.0%	7.0%	13.5%	7.8%	4.0%	3.0%	5.5%	4.2%
CMS Energy	8.5%	0.0%	2.0%	3.5%	7.0%	10.0%	5.0%	7.3%
Consolidated Edison	4.5%	1.0%	4.5%	3.3%	3.5%	1.5%	3.5%	2.8%
Dominion Resources	6.5%	6.5%	3.5%	5.5%	5.5%	6.0%	3.5%	5.0%
DTE Energy	6.0%	2.0%	4.0%	4.0%	4.0%	4.5%	4.0%	4.2%
Duke Energy	7.0%		-4.0%	1.5%	4.5%	2.0%	3.5%	3.3%
Integrys Energy Group	-0.5%	3.0%	0.5%	1.0%	3.5%	0.5%	3.0%	2.3%
MGE Energy	6.0%	2.0%	5.5%	4.5%	4.5%	3.5%	5.0%	4.3%
Northeast Utilities	18.0%	8.5%	3.5%	10.0%	6.5%	8.5%	7.5%	7.5%
NorthWestern Corp		13.0%	2.0%	7.5%	5.0%	4.5%	4.5%	4.7%
NV Energy	4.0%		4.0%	4.0%	11.5%	14.0%	3.5%	9.7%
OGE Energy	8.5%	2.0%	8.5%	6.3%	4.0%	5.0%	7.0%	5.3%
Pepco Holdings	-4.5%	1.5%	0.5%	-0.8%	6.0%	1.0%	1.5%	2.8%
PG&E Corp	3.5%	16.0%	6.5%	8.7%	3.5%	2.0%	4.0%	3.2%
SCANA Corp.	2.0%	4.0%	4.5%	3.5%	4.5%	2.0%	5.0%	3.8%
Sempra Energy	2.5%	8.5%	9.5%	6.8%	4.5%	9.0%	5.0%	6.2%
TECO Energy	3.5%	1.5%	6.5%	3.8%	3.5%	2.0%	2.5%	2.7%
UIL Holdings	4.5%	0.0%	-0.5%	1.3%	4.0%	0.0%	4.5%	2.8%
UNS Energy	10.5%	14.5%	5.5%	10.2%	6.5%	5.5%	5.5%	5.8%
Vectren Corp.	1.0%	2.5%	3.0%	2.2%	6.0%	2.5%	4.0%	4.2%
Wisconsin Energy Corp	10.0%	17.0%	7.0%	11.3%	6.5%	13.0%	3.5%	7.7%
Xcel Energy Inc.	4.5%	3.5%	4.5%	4.2%	6.0%	5.0%	4.5%	5.2%
Average				**5.0%**				**4.7%**

Source: Value Line Investment Survey, as of February and March of 2013.

COMPARISON COMPANIES
DCF COST RATES

COMPANY	ADJUSTED YIELD	HISTORIC RETENTION GROWTH	PROSPECTIVE RETENTION GROWTH	HISTORIC PER SHARE GROWTH	PROSPECTIVE PER SHARE GROWTH	FIRST CALL EPS GROWTH		AVERAGE GROWTH	DCF RATES
Parcell Proxy Group									
ALLETE	4.2%	2.2%	2.8%	2.5%	4.8%	4.00%	1/	3.3%	7.5%
Avista	4.8%	3.1%	2.8%	8.7%	3.8%	4.30%		4.5%	9.4%
Black Hills Corp	3.8%	1.1%	2.7%	0.8%	4.3%	6.00%		3.0%	6.8%
Cleco	3.2%	5.4%	4.7%	7.3%	7.7%	8.00%		6.6%	9.8%
Hawaiian Electric	4.7%	1.3%	3.0%	neg	5.2%	3.30%		3.2%	7.9%
IDACORP	3.4%	5.1%	4.0%	4.5%	4.8%	3.30%		4.4%	7.7%
NorthWestern Corp	4.1%	3.2%	3.5%	7.5%	4.7%	5.30%		4.8%	9.0%
Otter Tail Corp	4.3%		1.8%	neg	7.8%	6.00%		5.2%	9.5%
Pepco Holdings	5.4%	1.3%	1.8%	neg	2.8%	5.40%		2.8%	8.3%
Portland General Corp	3.8%	2.8%	3.8%	5.3%	4.2%	5.86%	1/	4.4%	8.2%
TECO Energy	5.2%	2.3%	2.3%	3.8%	2.7%	1.80%		2.6%	7.7%
UIL Holdings	4.6%	1.3%	2.5%	1.3%	2.8%	8.59%		3.3%	7.9%
Westar Energy	4.5%	2.4%	3.3%	3.7%	4.0%	6.50%	1/	4.0%	8.5%
Mean	4.3%	2.6%	3.0%	4.5%	4.6%	5.3%		4.0%	**8.3%**
Median	4.3%	2.3%	2.8%	4.2%	4.3%	5.4%		4.0%	**8.2%**
Composite - Mean		**7.0%**	7.3%	8.9%	8.9%	**9.6%**		8.3%	
Composite - Median		**6.6%**	7.1%	8.5%	8.6%	**9.7%**		8.3%	
Gorman Proxy Group									
ALLETE	4.3%	2.2%	2.8%	2.5%	5.7%	5.33%	1/	3.7%	8.0%
Alliant Energy Corp	4.1%	3.1%	4.0%	5.2%	4.3%	6.01%	1/	4.5%	8.6%
American Electric Power Co.	4.2%	4.1%	3.8%	3.2%	4.2%	3.71%	1/	3.8%	8.0%
Avista Corp	4.8%	3.1%	2.8%	8.7%	3.8%	4.17%	1/	4.5%	9.3%
Cleco Corp	3.2%	5.4%	4.7%	7.3%	7.7%	8.00%	1/	6.6%	9.8%
CMS Energy	4.0%	6.0%	5.3%	5.3%	7.3%	5.89%	1/	6.0%	10.0%
Consolidated Edison	4.3%	3.1%	3.3%	3.3%	2.8%	2.77%	1/	3.1%	7.4%
DTE Energy	3.9%	3.1%	3.3%	4.0%	4.2%	4.55%	1/	3.8%	7.8%
Edison International	2.9%	6.9%	6.0%	6.7%	3.0%	3.71%	1/	5.3%	8.1%
Great Plains Energy, Inc.	4.1%	1.7%	2.8%	neg	5.0%	5.88%	1/	3.8%	7.9%
IDACORP, Inc.	3.4%	5.1%	4.0%	4.5%	4.8%	4.00%	1/	4.5%	7.9%
Integrys Energy Group	5.0%	1.1%	2.2%	1.0%	2.3%	5.67%	1/	2.5%	7.4%
Northeast Utilities	3.7%	4.4%	3.7%	10.0%	7.5%	7.61%	1/	6.6%	10.3%
NorthWestern Corp	4.1%	3.2%	3.5%	7.5%	4.7%	4.89%	1/	4.8%	8.9%
PG&E Corp	4.4%	4.4%	3.5%	8.7%	3.2%	1.46%	1/	4.2%	8.6%
Pinnacle West Capital Corp	4.1%	2.1%	3.5%	1.3%	4.3%	6.13%	1/	3.5%	7.5%
Portland General Electric	3.8%	2.8%	3.8%	5.3%	4.2%	5.65%	1/	4.3%	8.1%
TECO Energy	5.2%	2.3%	2.3%	3.8%	2.7%	2.89%	1/	2.8%	8.0%
UIL Holdings	4.6%	1.3%	2.5%	1.3%	2.8%	6.08%	1/	2.8%	7.4%
Westar Energy	4.5%	2.4%	3.3%	3.7%	4.0%	5.47%	1/	3.8%	8.2%
Wisconsin Energy Corp	3.5%	6.7%	5.2%	11.3%	7.7%	5.30%	1/	7.2%	10.8%
Xcel Energy Inc.	3.9%	3.9%	4.0%	4.2%	5.2%	5.11%	1/	4.5%	8.4%
Mean	4.1%	3.6%	3.6%	5.2%	4.6%	5.0%		4.4%	**8.5%**
Median	4.1%	3.1%	3.5%	4.5%	4.3%	5.3%		4.3%	**8.1%**
Composite - Mean		**7.7%**	7.7%	9.3%	8.7%	**9.1%**		8.5%	
Composite - Median		**7.2%**	7.6%	8.6%	8.3%	**9.4%**		8.4%	

Note: Negative values not used in calculations.

1/ Projected EPS growth rates as shown in Exhibit No. ___ (MPG-10).

Sources: Prior pages of this exhibit.

COMPARISON COMPANIES
DCF COST RATES

COMPANY	ADJUSTED YIELD	HISTORIC RETENTION GROWTH	PROSPECTIVE RETENTION GROWTH	HISTORIC PER SHARE GROWTH	PROSPECTIVE PER SHARE GROWTH	FIRST CALL EPS GROWTH 1/	AVERAGE GROWTH	DCF RATES
Morin Proxy Group								
Alliant Energy Corp	4.1%	3.1%	4.0%	5.2%	4.3%	6.1%	4.5%	8.6%
Avista Corp	4.8%	3.1%	2.8%	8.7%	3.8%	4.3%	4.5%	9.4%
Black Hills Corp.	3.8%	1.1%	2.7%	0.8%	4.3%	6.0%	3.0%	6.8%
CenterPoint Energy	3.9%	5.6%	4.7%	7.8%	4.2%	5.7%	5.6%	9.5%
CMS Energy	4.0%	6.0%	5.3%	3.5%	7.3%	6.0%	5.6%	9.6%
Consolidated Edison	4.3%	3.1%	3.3%	3.3%	2.8%	3.3%	3.2%	7.5%
Dominion Resources	4.2%	5.2%	4.7%	5.5%	5.0%	5.0%	5.1%	9.3%
DTE Energy	3.9%	3.1%	3.3%	4.0%	4.2%	5.0%	3.9%	7.8%
Duke Energy	4.5%	1.4%	2.3%	1.5%	3.3%	4.1%	2.5%	7.1%
Integrys Energy Group	5.0%	1.1%	2.2%	1.0%	2.3%	5.3%	2.4%	7.4%
MGE Energy	2.0%	4.4%	4.8%	4.5%	4.3%	4.0%	4.4%	6.4%
Northeast Utilities	3.7%	4.4%	3.7%	10.0%	7.5%	7.2%	6.6%	10.2%
NorthWestern Corp	4.1%	3.2%	3.5%	7.5%	4.7%	5.3%	4.8%	9.0%
NV Energy	4.1%	3.4%	3.5%	4.0%	9.7%	15.1%	7.1%	11.2%
OGE Energy	1.4%	6.6%	5.5%	6.3%	5.3%	5.4%	5.8%	7.2%
Pepco Holdings	5.4%	1.3%	1.8%	neg	2.8%	5.4%	2.8%	8.3%
PG&E Corp	4.4%	4.4%	3.5%	8.7%	3.2%	2.5%	4.5%	8.8%
SCANA Corp.	4.3%	3.9%	4.2%	3.5%	3.8%	4.8%	4.0%	8.3%
Sempra Energy	3.4%	7.4%	5.3%	6.8%	6.2%	4.3%	6.0%	9.4%
TECO Energy	5.2%	2.3%	2.3%	3.8%	2.7%	1.8%	2.6%	7.7%
UIL Holdings	4.6%	1.3%	2.5%	1.3%	2.8%	4.5%	2.5%	7.1%
UNS Energy	5.2%	4.5%	4.5%	10.2%	5.8%	6.3%	6.3%	11.5%
Vectren Corp.	4.4%	2.2%	3.5%	2.2%	4.2%	5.0%	3.4%	7.9%
Wisconsin Energy Corp	3.5%	6.7%	5.2%	11.3%	7.7%	5.4%	7.3%	10.8%
Xcel Energy Inc.	3.9%	3.9%	2.7%	4.2%	5.2%	4.9%	4.2%	8.1%
Mean	4.1%	3.7%	3.7%	5.2%	4.7%	5.3%	4.5%	**8.6%**
Median	4.1%	3.4%	3.5%	4.3%	4.3%	5.0%	4.5%	**8.3%**
Composite - Mean		7.8%	**7.8%**	9.3%	8.8%	**9.4%**	8.6%	
Composite - Median		**7.5%**	7.6%	8.5%	8.5%	**9.1%**	8.6%	

Note: Negative values not used in calculations.

1/ Projected EPS growth rates as shown in Exhibit No. ___ (RAM-5).

Sources: Prior pages of this exhibit.

Exhibit No. ___ (DCP-8)
Dockets UE-121697, et al.
Witness: David C. Parcell

BEFORE THE WASHINGTON UTILITIES AND TRANSPORTATION COMMISSION

WASHINGTON UTILITIES AND TRANSPORTATION COMMISSION, **Complainant,** **v.** **PUGET SOUND ENERGY,** **Respondent.**	**DOCKETS UE-121697 and UG-121705 (*consolidated*)**
WASHINGTON UTILITIES AND TRANSPORTATION COMMISSION, **Complainant,** **v.** **PUGET SOUND ENERGY, INC.** **Respondent.**	**DOCKETS UE-130137 and UG-130138 (*consolidated*)**

EXHIBIT TO
TESTIMONY OF

David C. Parcell

ON BEHALF OF THE STAFF OF WASHINGTON UTILITIES AND TRANSPORTATION COMMISSION

Standard & Poor's 500 Composite Risk Premiums

December 3, 2014

STANDARD & POOR'S 500 COMPOSITE
20-YEAR U.S. TREASURY BOND YIELDS
RISK PREMIUMS

Year	EPS	BVPS	ROE	20-YEAR T-BOND YIELD	RISK PREMIUM
1977		$79.07			
1978	$12.33	$85.35	15.00%	7.90%	7.10%
1979	$14.86	$94.27	16.55%	8.86%	7.69%
1980	$14.82	$102.48	15.06%	9.97%	5.09%
1981	$15.36	$109.43	14.50%	11.55%	2.95%
1982	$12.64	$112.46	11.39%	13.50%	-2.11%
1983	$14.03	$116.93	12.23%	10.38%	1.85%
1984	$16.64	$122.47	13.90%	11.74%	2.16%
1985	$14.61	$125.20	11.80%	11.25%	0.55%
1986	$14.48	$126.82	11.49%	8.98%	2.51%
1987	$17.50	$134.04	13.42%	7.92%	5.50%
1988	$23.75	$141.32	17.25%	8.97%	8.28%
1989	$22.87	$147.26	15.85%	8.81%	7.04%
1990	$21.73	$153.01	14.47%	8.19%	6.28%
1991	$16.29	$158.85	10.45%	8.22%	2.23%
1992	$19.09	$149.74	12.37%	7.29%	5.08%
1993	$21.89	$180.88	13.24%	7.17%	6.07%
1994	$30.60	$193.06	16.37%	6.59%	9.78%
1995	$33.96	$215.51	16.62%	7.60%	9.02%
1996	$38.73	$237.08	17.11%	6.18%	10.93%
1997	$39.72	$249.52	16.33%	6.64%	9.69%
1998	$37.71	$266.40	14.62%	5.83%	8.79%
1999	$48.17	$290.68	17.29%	5.57%	11.72%
2000	$50.00	$325.80	16.22%	6.50%	9.72%
2001	$24.69	$338.37	7.43%	5.53%	1.90%
2002	$27.59	$321.72	8.36%	5.59%	2.77%
2003	$48.73	$367.17	14.15%	4.80%	9.35%
2004	$58.55	$414.75	14.98%	5.02%	9.96%
2005	$69.93	$453.06	16.12%	4.69%	11.43%
2006	$81.51	$504.39	17.03%	4.68%	12.35%
2007	$66.17	$529.59	12.80%	4.86%	7.94%
2008	$14.88	$451.37	3.03%	4.45%	-1.42%
2009	$50.97	$513.58	10.56%	3.47%	7.09%
2010	$77.35	$579.14	14.16%	4.25%	9.91%
2011	$86.58	$613.14	14.52%	3.81%	10.71%
2012	$86.51	$666.97	13.52%	2.40%	11.12%
Average					**6.60%**

Source: Standard & Poor's Analysts' Handbook, Ibbotson Associates Handbook.

Exhibit No. ___ (DCP-9)
Dockets UE-121697, et al.
Witness: David C. Parcell

BEFORE THE WASHINGTON UTILITIES AND TRANSPORTATION COMMISSION

WASHINGTON UTILITIES AND TRANSPORTATION COMMISSION, **Complainant,** **v.** **PUGET SOUND ENERGY,** **Respondent.**	**DOCKETS UE-121697 and UG-121705 (*consolidated*)**
WASHINGTON UTILITIES AND TRANSPORTATION COMMISSION, **Complainant,** **v.** **PUGET SOUND ENERGY, INC.** **Respondent.**	**DOCKETS UE-130137 and UG-130138 (*consolidated*)**

EXHIBIT TO TESTIMONY OF

David C. Parcell

ON BEHALF OF THE STAFF OF WASHINGTON UTILITIES AND TRANSPORTATION COMMISSION

Proxy Companies CAPM Cost Rates

December 3, 2014

COMPARISON COMPANIES
CAPM COST RATES

COMPANY	RISK-FREE RATE	BETA	RISK PREMIUM	CAPM RATES
Parcell Proxy Group				
ALLETE	2.75%	0.70	5.50%	6.6%
Avista	2.75%	0.70	5.50%	6.6%
Black Hills Corp	2.75%	0.80	5.50%	7.1%
Cleco	2.75%	0.65	5.50%	6.3%
Hawaiian Electric	2.75%	0.70	5.50%	6.6%
IDACORP	2.75%	0.70	5.50%	6.6%
NorthWestern Corp	2.75%	0.70	5.50%	6.6%
Otter Tail Corp	2.75%	0.90	5.50%	7.7%
Pepco Holdings	2.75%	0.75	5.50%	6.9%
Portland General Corp	2.75%	0.75	5.50%	6.9%
TECO Energy	2.75%	0.85	5.50%	7.4%
UIL Holdings	2.75%	0.70	5.50%	6.6%
Westar Energy	2.75%	0.70	5.50%	6.6%
Mean				**6.8%**
Median				**6.6%**
Gorman Proxy Group				
ALLETE	2.75%	0.70	5.50%	6.6%
Alliant Energy Corp	2.75%	0.70	5.50%	6.6%
American Electric Power Co.	2.75%	0.65	5.50%	6.3%
Avista Corp	2.75%	0.70	5.50%	6.6%
Cleco Corp	2.75%	0.65	5.50%	6.3%
CMS Energy	2.75%	0.75	5.50%	6.9%
Consolidated Edison	2.75%	0.60	5.50%	6.0%
DTE Energy	2.75%	0.75	5.50%	6.9%
Edison International	2.75%	0.75	5.50%	6.9%
Great Plains Energy, Inc.	2.75%	0.75	5.50%	6.9%
IDACORP, Inc.	2.75%	0.70	5.50%	6.6%
Integrys Energy Group	2.75%	0.90	5.50%	7.7%
Northeast Utilities	2.75%	0.70	5.50%	6.6%
NorthWestern Corp	2.75%	0.70	5.50%	6.6%
PG&E Corp	2.75%	0.50	5.50%	5.5%
Pinnacle West Capital Corp	2.75%	0.70	5.50%	6.6%
Portland General Electric	2.75%	0.75	5.50%	6.9%
TECO Energy	2.75%	0.85	5.50%	7.4%
UIL Holdings	2.75%	0.70	5.50%	6.6%
Westar Energy	2.75%	0.70	5.50%	6.6%
Wisconsin Energy Corp	2.75%	0.60	5.50%	6.0%
Xcel Energy Inc.	2.75%	0.60	5.50%	6.0%
Mean				**6.6%**
Median				**6.6%**

Sources: Value Line Investment Survey, Standard & Poor's Analysts' Handbook, Federal Reserve.

20-year Treasury Bonds	
Month	Rate
January, 2013	2.68%
February, 2013	2.78%
March, 2013	2.78%
Average	2.75%

COMPARISON COMPANIES
CAPM COST RATES

COMPANY	RISK-FREE RATE	BETA	RISK PREMIUM	CAPM RATES
Morin Proxy Group				
Alliant Energy Corp	2.75%	0.70	5.42%	6.5%
Avista Corp	2.75%	0.70	5.42%	6.5%
Black Hills Corp.	2.75%	0.80	5.42%	7.1%
CenterPoint Energy	2.75%	0.80	5.42%	7.1%
CMS Energy	2.75%	0.75	5.42%	6.8%
Consolidated Edison	2.75%	0.60	5.42%	6.0%
Dominion Resources	2.75%	0.65	5.42%	6.3%
DTE Energy	2.75%	0.75	5.42%	6.8%
Duke Energy	2.75%	0.60	5.42%	6.0%
Integrys Energy Group	2.75%	0.90	5.42%	7.6%
MGE Energy	2.75%	0.60	5.42%	6.0%
Northeast Utilities	2.75%	0.70	5.42%	6.5%
NorthWestern Corp	2.75%	0.70	5.42%	6.5%
NV Energy	2.75%	0.85	5.42%	7.4%
OGE Energy	2.75%	0.75	5.42%	6.8%
Pepco Holdings	2.75%	0.75	5.42%	6.8%
PG&E Corp	2.75%	0.50	5.42%	5.5%
SCANA Corp.	2.75%	0.65	5.42%	6.3%
Sempra Energy	2.75%	0.80	5.42%	7.1%
TECO Energy	2.75%	0.85	5.42%	7.4%
UIL Holdings	2.75%	0.70	5.42%	6.5%
UNS Energy	2.75%	0.70	5.42%	6.5%
Vectren Corp.	2.75%	0.70	5.42%	6.5%
Wisconsin Energy Corp	2.75%	0.60	5.42%	6.0%
Xcel Energy Inc.	2.75%	0.60	5.42%	6.0%
Mean				**6.6%**
Median				**6.5%**

Sources: Value Line Investment Survey, Standard & Poor's Analysts' Handbook, Federal Reserve.

20-year Treasury Bonds	
Month	Rate
January, 2013	2.68%
February, 2013	2.78%
March, 2013	2.78%
Average	2.75%

Exhibit No. ___ (DCP-10)
Dockets UE-121697, et al.
Witness: David C. Parcell

BEFORE THE WASHINGTON UTILITIES AND TRANSPORTATION COMMISSION

WASHINGTON UTILITIES AND TRANSPORTATION COMMISSION, **Complainant,** **v.** **PUGET SOUND ENERGY,** **Respondent.**	**DOCKETS UE-121697 and UG-121705 (*consolidated*)**
WASHINGTON UTILITIES AND TRANSPORTATION COMMISSION, **Complainant,** **v.** **PUGET SOUND ENERGY, INC.** **Respondent.**	**DOCKETS UE-130137 and UG-130138 (*consolidated*)**

EXHIBIT TO
TESTIMONY OF

David C. Parcell

ON BEHALF OF THE STAFF OF WASHINGTON UTILITIES AND TRANSPORTATION COMMISSION

Proxy Companies Rates of Return on Average Common Equity
and Market-to-Book Ratios

December 3, 2014

COMPARISON COMPANIES
RATES OF RETURN ON AVERAGE COMMON EQUITY

COMPANY	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2002-2008 Average	2009-2012 Average	2013	2014	2016-18
Parcell Proxy Group																
ALLETE			12.7%	12.0%	13.2%	13.4%	11.4%	7.3%	8.2%	9.5%	8.7%	12.5%	8.4%	8.0%	8.5%	10.0%
Avista	4.5%	6.7%	4.6%	5.8%	8.6%	4.1%	7.6%	8.4%	8.5%	8.6%	6.4%	6.0%	8.0%	8.0%		9.0%
Black Hills Corp	12.1%	6.9%	7.9%	9.4%	9.6%	10.8%	0.7%	8.4%	5.9%	3.6%	7.1%	8.5%	6.3%	8.5%		8.5%
Cleco	13.5%	11.5%	12.6%	11.6%	9.4%	8.2%	9.9%	9.7%	11.4%	11.4%	11.2%	11.0%	10.9%	10.0%	10.5%	11.0%
Hawaiian Electric	11.9%	11.1%	9.3%	8.7%	9.3%	7.7%	7.0%	5.9%	7.7%	9.1%	10.4%	9.4%	8.3%	9.5%		10.0%
IDACORP	7.1%	4.2%	8.2%	7.3%	9.4%	7.1%	8.0%	9.3%	9.8%	10.5%	9.9%	7.3%	9.9%	9.0%		8.5%
NorthWestern Corp				16.6%	6.4%	6.9%	8.4%	9.4%	9.6%	10.9%	9.3%	9.6%	9.8%	8.0%		10.0%
Otter Tail Corp	15.2%	12.0%	10.8%	11.6%	10.4%	10.4%	5.9%	3.7%	2.1%	2.7%	6.9%	10.9%	3.9%	9.0%	9.0%	10.5%
Pepco Holdings	9.8%	7.6%	8.3%	8.1%	7.1%	7.9%	9.9%	5.5%	6.5%	6.0%	6.5%	8.4%	6.1%	7.0%	7.0%	8.0%
Portland General Corp					5.8%	11.5%	6.5%	6.2%	8.0%	9.0%	8.3%	8.0%	7.9%	8.0%		9.0%
TECO Energy	13.5%	-0.7%	9.2%	14.2%	14.7%	14.3%	6.1%	10.4%	11.4%	12.3%	10.8%	10.5%	11.2%	9.0%	10.0%	12.0%
UIL Holdings	8.9%	6.1%	7.1%	5.7%	9.1%	10.1%	10.1%	10.2%	9.6%	9.1%	9.4%	8.2%	9.6%	10.0%	9.5%	9.0%
Westar Energy	5.0%	10.6%	7.7%	9.6%	11.1%	10.0%	6.7%	6.3%	6.6%	8.2%	9.5%	8.7%	8.2%	8.5%	9.0%	9.0%
Average	10.2%	7.8%	8.9%	10.1%	9.6%	9.4%	7.7%	7.7%	8.3%	6.5%	8.8%	9.1%	9.3%	8.7%	9.1%	9.6%
Median	10.9%	8.3%	8.3%	9.7%	8.4%	10.0%	8.0%	8.4%	8.5%	9.1%	9.3%	9.2%	9.8%	9.0%	9.0%	9.0%
Gorman Proxy Group																
ALLETE			12.7%	12.0%	13.2%	13.4%	11.4%	7.3%	8.2%	9.5%	8.7%	12.5%	8.4%	8.7%	8.7%	8.7%
Alliant Energy Corp	5.7%	7.6%	8.5%	10.3%	9.4%	11.4%	10.2%	7.5%	10.8%	10.3%	11.0%	9.0%	9.9%	11.0%	10.5%	11.0%
American Electric Power Co.	12.3%	12.4%	12.7%	11.9%	12.2%	11.7%	11.6%	11.0%	9.3%	10.7%	9.7%	12.1%	10.2%	9.5%	10.0%	10.0%
Avista Corp	4.5%	6.7%	4.6%	5.6%	8.8%	4.1%	7.6%	6.4%	8.5%	8.6%	6.4%	6.0%	8.0%	8.0%		9.0%
Cleco Corp	13.5%	11.5%	12.6%	11.6%	9.4%	8.2%	9.9%	9.7%	11.4%	11.4%	11.2%	11.0%	10.9%	10.0%	10.5%	11.0%
CMS Energy	nmf	nmf	7.2%	10.4%	6.2%	6.6%	12.1%	8.3%	11.8%	12.5%	12.7%	8.5%	11.3%	13.0%	13.5%	13.0%
Consolidated Edison	11.5%	10.0%	8.0%	10.2%	9.7%	10.9%	9.9%	6.7%	9.3%	9.3%	9.7%	10.0%	9.3%	9.0%	9.0%	9.0%
DTE Energy	13.7%	9.7%	8.1%	10.2%	7.5%	7.7%	7.5%	8.7%	9.6%	9.1%	9.2%	9.2%	9.2%	9.0%	9.0%	9.0%
Edison International	15.4%	15.6%	3.9%	17.4%	14.9%	13.4%	13.4%	10.9%	10.7%	10.2%	15.2%	13.5%	11.8%	11.0%		10.0%
Great Plains Energy, Inc.	15.6%	16.6%	16.9%	13.7%	9.8%	10.6%	5.9%	4.9%	7.3%	5.8%	6.2%	12.7%	6.1%	6.5%	7.0%	8.0%
IDACORP, Inc.	7.1%	4.2%	8.2%	7.3%	9.4%	7.1%	6.0%	9.3%	9.6%	10.5%	9.9%	7.3%	9.9%	9.5%	9.0%	8.5%
Integrys Energy Group	11.6%	10.7%	14.4%	13.2%	10.3%	6.3%	3.9%	5.8%	8.6%	7.6%	9.6%	10.0%	7.9%	8.5%	9.0%	9.0%
Northeast Utilities	6.4%	7.1%	5.1%	5.4%	4.5%	8.6%	9.8%	8.6%	4.9%	10.0%	7.3%	6.7%	8.0%	8.5%	8.5%	9.5%
NorthWestern Corp				16.6%	6.4%	6.9%	8.4%	9.4%	9.6%	10.9%	9.3%	9.6%	9.8%	9.0%	0.0%	10.0%
PG&E Corp	nmf	20.9%	13.8%	11.7%	13.2%	11.9%	12.8%	11.3%	10.0%	9.6%	6.9%	14.1%	9.5%	8.5%	8.5%	10.0%
Pinnacle West Capital Corp	6.6%	8.3%	8.2%	6.7%	9.2%	8.5%	6.1%	6.6%	9.3%	8.7%	9.8%	7.9%	8.7%	9.5%	9.5%	10.0%
Portland General Electric					5.9%	11.5%	6.5%	6.2%	8.0%	9.0%	8.3%	8.0%	7.9%	8.0%		9.0%
TECO Energy	13.5%	-0.7%	9.2%	14.2%	14.7%	14.3%	8.1%	10.4%	11.4%	12.3%	10.8%	10.5%	11.2%	9.0%	10.0%	12.0%
UIL Holdings	8.9%	6.1%	7.1%	5.7%	9.1%	10.1%	10.1%	10.2%	9.8%	9.1%	8.4%	8.2%	9.6%	10.0%	9.5%	9.0%
Westar Energy	5.0%	10.6%	7.7%	9.6%	11.1%	10.0%	6.7%	6.3%	6.6%	8.2%	9.5%	8.7%	8.2%	8.5%	9.0%	8.0%
Wisconsin Energy Corp	12.8%	11.8%	9.0%	11.6%	11.1%	11.1%	11.0%	10.8%	12.2%	13.0%	13.3%	11.2%	12.3%	13.0%	13.0%	14.0%
Xcel Energy Inc.	2.8%	10.0%	9.8%	9.1%	9.8%	9.3%	9.7%	9.5%	9.5%	10.1%	10.4%	8.6%	9.9%	9.5%		10.0%
Average	9.9%	10.0%	8.4%	10.7%	9.8%	9.7%	9.1%	8.7%	9.5%	9.8%	8.8%	9.8%	9.4%	9.4%	9.1%	9.9%
Median	11.5%	10.0%	6.4%	10.4%	9.6%	10.1%	9.8%	9.0%	9.6%	9.8%	9.7%	9.9%	9.5%	9.8%	9.0%	9.8%
Morin Proxy Group																
Alliant Energy Corp	5.7%	7.6%	8.5%	10.3%	9.4%	11.4%	10.2%	7.5%	10.8%	10.3%	11.0%	9.0%	9.9%	11.0%	10.5%	11.0%
Avista Corp	4.5%	6.7%	4.6%	5.8%	8.8%	4.1%	7.6%	8.4%	8.5%	8.6%	6.4%	6.0%	8.0%	8.0%		9.0%
Black Hills Corp.	12.1%	8.9%	7.9%	8.4%	9.6%	10.9%	0.7%	8.4%	5.9%	3.6%	7.1%	8.5%	6.3%	8.5%		8.5%
CenterPoint Energy	9.6%	26.1%	13.1%	17.2%	29.1%	22.1%	22.6%	16.0%	15.0%	14.6%	13.5%	20.0%	14.8%	12.5%	12.0%	12.0%
CMS Energy	nmf	nmf	7.2%	10.4%	6.2%	6.6%	12.1%	6.3%	11.8%	12.5%	12.7%	8.5%	11.3%	13.0%	13.5%	13.0%
Consolidated Edison	11.5%	10.0%	8.0%	10.2%	9.7%	10.9%	9.9%	8.7%	9.3%	9.3%	9.7%	10.0%	9.3%	9.0%	9.0%	9.0%
Dominion Resources	14.9%	12.0%	12.9%	9.4%	14.3%	12.2%	18.1%	14.7%	14.7%	13.6%	14.3%	13.4%	14.3%	15.5%	15.5%	15.5%
DTE Energy	13.7%	9.7%	8.1%	10.2%	7.5%	7.7%	7.5%	9.7%	9.6%	9.1%	9.2%	9.2%	9.2%	9.0%	9.0%	9.0%
Duke Energy	8.9%	0.6%	6.6%	9.5%	4.8%	6.4%	6.1%	6.8%	8.0%	8.1%	6.8%	6.4%	7.4%	7.5%	7.5%	8.0%
Integrys Energy Group	11.6%	10.7%	14.4%	13.2%	10.3%	6.3%	3.8%	5.8%	8.6%	7.6%	9.6%	10.0%	7.9%	8.5%	9.0%	9.0%
MGE Energy	13.2%	12.5%	11.4%	9.4%	11.8%	12.1%	11.8%	10.4%	11.3%	11.3%	11.4%	11.7%	11.1%	11.0%	10.5%	10.5%
Northeast Utilities	6.4%	7.1%	5.1%	5.4%	4.5%	8.6%	9.6%	9.6%	4.9%	10.0%	7.3%	6.7%	8.0%	8.5%	8.5%	9.5%
NorthWestern Corp				16.6%	6.4%	6.9%	8.4%	9.4%	9.5%	10.8%	9.3%	9.6%	9.8%	9.0%		10.0%
NV Energy	nmf	nmf	3.2%	3.8%	10.3%	7.2%	6.8%	5.8%	6.9%	4.8%	9.1%	6.3%	6.7%	9.0%		9.0%
OGE Energy	11.1%	13.2%	12.7%	12.5%	15.0%	14.7%	13.0%	12.9%	13.5%	14.0%	13.2%	13.2%	13.4%	11.5%	11.5%	11.0%
Pepco Holdings	9.6%	7.6%	8.3%	8.1%	7.1%	7.9%	9.9%	5.5%	6.5%	6.0%	6.5%	8.4%	6.1%	7.0%	7.0%	8.0%
PG&E Corp	nmf	20.9%	13.8%	11.7%	13.2%	11.9%	12.8%	11.3%	10.0%	9.6%	6.9%	14.1%	9.5%	8.5%	8.5%	10.0%
SCANA Corp.	11.7%	12.4%	12.6%	12.4%	10.9%	11.0%	11.5%	10.7%	10.5%	10.0%	10.2%	11.8%	10.4%	9.5%	9.5%	9.5%
Sempra Energy	20.7%	19.4%	20.7%	15.7%	16.1%	14.1%	13.7%	13.8%	10.9%	11.4%	10.4%	17.2%	11.6%	10.0%	10.0%	11.5%
TECO Energy	13.5%	-0.7%	9.2%	14.2%	14.7%	14.3%	8.1%	10.4%	11.4%	12.3%	10.8%	10.5%	11.2%	9.0%	10.0%	12.0%
UIL Holdings	8.9%	6.1%	7.1%	5.7%	9.1%	10.1%	10.1%	10.2%	9.8%	9.1%	9.4%	8.2%	9.6%	10.0%	9.5%	9.0%
UNS Energy	7.5%	9.0%	6.0%	7.5%	10.2%	8.1%	2.0%	13.4%	13.0%	11.8%	8.8%	7.5%	11.8%	10.0%	11.5%	11.5%
Vectren Corp.	13.3%	11.6%	9.9%	12.3%	9.5%	11.6%	9.9%	10.6%	9.4%	8.7%	10.6%	11.2%	10.1%	10.5%	11.0%	11.0%
Wisconsin Energy Corp	12.8%	11.8%	9.0%	11.6%	11.1%	11.1%	11.0%	10.8%	12.2%	13.0%	13.3%	11.2%	12.3%	13.0%	13.0%	14.0%
Xcel Energy Inc.	2.8%	10.0%	9.8%	9.1%	9.8%	9.3%	9.7%	9.5%	9.5%	10.1%	10.4%	8.6%	9.9%	9.5%		10.0%
Average	10.7%	10.6%	9.8%	10.5%	10.8%	10.3%	9.9%	9.9%	10.1%	10.1%	9.9%	18.3%	10.0%	9.9%	10.3%	10.4%
Median	11.5%	10.0%	8.8%	10.2%	9.8%	10.9%	9.9%	9.6%	9.8%	10.0%	9.7%	10.2%	9.8%	9.6%	10.0%	10.0%

Source: Calculations made from data contained in Value Line Investment Survey.

COMPARISON COMPANIES
MARKET TO BOOK RATIOS

COMPANY	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2002-2009 Average	2009-2012 Average
Parcell Proxy Group													
ALLETE			322%	212%	219%	195%	156%	113%	127%	138%	136%	221%	129%
Avista	85%	94%	111%	115%	135%	127%	110%	94%	106%	119%	123%	111%	111%
Black Hills Corp	143%	134%	134%	165%	153%	164%	124%	77%	108%	109%	121%	145%	104%
Cleco	154%	134%	177%	177%	162%	162%	132%	129%	139%	151%	168%	157%	147%
Hawaiian Electric	153%	151%	179%	181%	192%	166%	166%	113%	140%	150%	164%	170%	142%
IDACORP	134%	112%	125%	122%	139%	132%	104%	94%	113%	119%	123%	124%	112%
NorthWestern Corp				282%	160%	147%	109%	105%	122%	138%	146%	175%	128%
Otter Tail Corp	245%	209%	185%	183%	178%	200%	167%	108%	120%	123%	152%	195%	126%
Pepco Holdings	110%	103%	109%	122%	129%	141%	115%	75%	92%	98%	101%	118%	92%
Portland General Corp					153%	140%	101%	83%	97%	109%	117%	131%	102%
TECO Energy	135%	111%	174%	243%	202%	188%	171%	131%	164%	172%	168%	175%	159%
UIL Holdings	126%	113%	133%	135%	174%	189%	168%	127%	136%	150%	161%	148%	144%
Westar Energy	67%	109%	132%	142%	139%	140%	107%	91%	111%	119%	133%	119%	114%
Average	135%	127%	162%	173%	164%	161%	133%	103%	121%	130%	139%	163%	124%
Median	135%	113%	134%	171%	160%	162%	124%	105%	120%	123%	136%	143%	121%
Gorman Proxy Group													
ALLETE			322%	212%	218%	195%	156%	113%	127%	138%	135%	221%	129%
Alliant Energy Corp	110%	97%	120%	131%	155%	173%	131%	102%	131%	147%	162%	131%	136%
American Electric Power Co.	138%	124%	155%	165%	161%	190%	145%	112%	118%	128%	134%	154%	123%
Avista Corp	85%	94%	111%	115%	135%	127%	110%	94%	106%	119%	123%	111%	111%
Cleco Corp	154%	134%	177%	177%	162%	162%	132%	129%	139%	151%	168%	157%	147%
CMS Energy	137%	80%	90%	125%	142%	177%	127%	117%	148%	170%	192%	125%	157%
Consolidated Edison	144%	146%	143%	154%	149%	151%	123%	110%	124%	145%	150%	144%	132%
DTE Energy	145%	142%	132%	140%	134%	143%	101%	91%	116%	121%	137%	134%	116%
Edison International	117%	108%	153%	205%	194%	208%	149%	101%	111%	117%	146%	162%	119%
Great Plains Energy, Inc.	163%	198%	218%	189%	181%	173%	113%	73%	87%	89%	97%	176%	87%
IDACORP, Inc.	134%	112%	125%	122%	139%	132%	104%	94%	113%	119%	123%	124%	112%
Integrys Energy Group	154%	162%	166%	174%	155%	139%	109%	82%	126%	129%	147%	151%	121%
Northeast Utilities	99%	95%	106%	108%	131%	163%	128%	114%	136%	150%	143%	119%	136%
NorthWestern Corp				282%	160%	147%	109%	105%	122%	138%	146%	175%	128%
PG&E Corp	149%	203%	196%	179%	201%	203%	144%	149%	148%	146%	145%	182%	147%
Pinnacle West Capital Corp	116%	114%	130%	130%	129%	127%	100%	90%	113%	125%	141%	121%	117%
Portland General Electric					153%	140%	101%	83%	97%	109%	117%	131%	102%
TECO Energy	135%	111%	174%	243%	202%	188%	171%	131%	164%	172%	168%	175%	159%
UIL Holdings	126%	113%	133%	135%	174%	189%	168%	127%	136%	150%	161%	148%	144%
Westar Energy	67%	109%	132%	142%	139%	148%	107%	91%	111%	119%	133%	119%	114%
Wisconsin Energy Corp	129%	147%	156%	168%	182%	179%	153%	147%	171%	186%	213%	159%	179%
Xcel Energy Inc.	113%	113%	132%	139%	150%	154%	127%	121%	135%	143%	156%	133%	139%
Average	127%	126%	154%	164%	161%	164%	128%	108%	126%	137%	147%	148%	130%
Median	134%	113%	138%	154%	155%	163%	127%	108%	125%	138%	146%	141%	129%
Morin Proxy Group													
Alliant Energy Corp	110%	97%	120%	131%	155%	173%	131%	102%	131%	147%	162%	131%	136%
Avista Corp	85%	94%	111%	115%	135%	127%	110%	94%	106%	119%	123%	111%	111%
Black Hills Corp.	143%	134%	134%	165%	153%	164%	124%	77%	108%	109%	121%	145%	104%
CenterPoint Energy	116%	142%	236%	329%	312%	330%	224%	187%	158%	210%	200%	241%	189%
CMS Energy	137%	80%	90%	125%	142%	177%	127%	117%	148%	170%	192%	125%	157%
Consolidated Edison	144%	146%	143%	154%	149%	151%	123%	110%	124%	145%	150%	144%	132%
Dominion Resources	158%	180%	196%	242%	229%	256%	238%	186%	207%	238%	272%	214%	226%
DTE Energy	145%	142%	132%	140%	134%	143%	101%	91%	116%	121%	137%	134%	116%
Duke Energy	171%	106%	139%	157%	153%	182%	102%	90%	101%	115%	120%	133%	107%
Integrys Energy Group	154%	162%	166%	174%	155%	139%	109%	82%	126%	129%	147%	151%	121%
MGE Energy	214%	223%	207%	207%	191%	178%	159%	154%	171%	182%	203%	197%	178%
Northeast Utilities	99%	95%	106%	108%	131%	163%	128%	114%	136%	150%	143%	119%	136%
NorthWestern Corp				282%	160%	147%	109%	105%	122%	138%	146%	175%	128%
NV Energy	72%	41%	68%	106%	136%	137%	91%	77%	90%	101%	117%	93%	96%
OGE Energy	147%	154%	178%	187%	205%	197%	145%	139%	180%	197%	204%	173%	180%
Pepco Holdings	110%	103%	109%	122%	129%	141%	115%	75%	92%	98%	101%	118%	92%
PG&E Corp	149%	203%	196%	179%	201%	203%	144%	149%	148%	146%	145%	182%	147%
SCANA Corp.	137%	158%	171%	179%	167%	158%	141%	121%	134%	135%	152%	159%	136%
Sempra Energy	155%	172%	178%	186%	190%	194%	151%	135%	136%	128%	153%	175%	138%
TECO Energy	135%	111%	174%	243%	202%	189%	171%	131%	164%	172%	168%	175%	159%
UIL Holdings	126%	113%	133%	135%	174%	189%	168%	127%	136%	150%	161%	148%	144%
UNS Energy	134%	141%	145%	171%	185%	177%	143%	140%	152%	155%	158%	157%	151%
Vectren Corp.	174%	170%	175%	185%	179%	175%	157%	133%	142%	153%	160%	174%	147%
Wisconsin Energy Corp	129%	147%	156%	168%	182%	179%	153%	147%	171%	186%	213%	159%	179%
Xcel Energy Inc.	113%	113%	132%	139%	150%	154%	127%	121%	135%	143%	156%	133%	139%
Average	136%	134%	150%	173%	172%	174%	140%	120%	137%	149%	160%	165%	142%
Median	137%	142%	144%	168%	160%	173%	131%	121%	136%	146%	153%	151%	139%

Source: Calculations made from data contained in Value Line Investment Survey.

Exhibit No. ___ (DCP-11)
Dockets UE-121697, et al.
Witness: David C. Parcell

BEFORE THE WASHINGTON UTILITIES AND TRANSPORTATION COMMISSION

WASHINGTON UTILITIES AND TRANSPORTATION COMMISSION, **Complainant,** **v.** **PUGET SOUND ENERGY,** **Respondent.**	**DOCKETS UE-121697 and UG-121705 (*consolidated*)**
WASHINGTON UTILITIES AND TRANSPORTATION COMMISSION, **Complainant,** **v.** **PUGET SOUND ENERGY, INC.** **Respondent.**	**DOCKETS UE-130137 and UG-130138 (*consolidated*)**

EXHIBIT TO
TESTIMONY OF

David C. Parcell

ON BEHALF OF THE STAFF OF WASHINGTON UTILITIES AND TRANSPORTATION COMMISSION

Standard & Poor's 500 Composite Returns on Equity and Market-to-Book Ratios

December 3, 2014

STANDARD & POOR'S 500 COMPOSITE RETURNS AND MARKET-TO-BOOK RATIOS 2002 - 2012

YEAR	RETURN ON AVERAGE EQUITY	MARKET-TO BOOK RATIO
2002	8.4%	296%
2003	14.2%	278%
2004	15.0%	291%
2005	16.1%	278%
2006	17.0%	277%
2007	12.8%	284%
2008	3.0%	224%
2009	10.6%	187%
2010	14.2%	208%
2011	14.6%	208%
2012	13.5%	214%
Averages:		
2002-2008	12.4%	275%
2009-2012	13.2%	204%

Source: Standard & Poor's Analysts' Handbook.

Exhibit No. ___ (DCP-12)
Dockets UE-121697, et al.
Witness: David C. Parcell

BEFORE THE WASHINGTON UTILITIES AND TRANSPORTATION COMMISSION

WASHINGTON UTILITIES AND TRANSPORTATION COMMISSION, **Complainant,** **v.** **PUGET SOUND ENERGY,** **Respondent.**	**DOCKETS UE-121697 and UG-121705 (*consolidated*)**
WASHINGTON UTILITIES AND TRANSPORTATION COMMISSION, **Complainant,** **v.** **PUGET SOUND ENERGY, INC.** **Respondent.**	**DOCKETS UE-130137 and UG-130138 (*consolidated*)**

EXHIBIT TO
TESTIMONY OF

David C. Parcell

ON BEHALF OF THE STAFF OF WASHINGTON
UTILITIES AND TRANSPORTATION COMMISSION

Risk Indicators

December 3, 2014

RISK INDICATORS 1/

COMPANY	VALUE LINE SAFETY	VALUE LINE BETA	VALUE LINE FINANCIAL STRENGTH		S& P STOCK RANKING	
Parcell Proxy Group						
ALLETE	2	0.70	A	4.00	B	3.00
Avista	2	0.70	A	4.00	A-	3.67
Black Hills Corp	3	0.80	B+	3.33	B	3.00
Cleco	1	0.65	A	4.00	B	3.00
Hawaiian Electric	2	0.70	B++	3.67	B	3.00
IDACORP	3	0.70	B+	3.33	B+	3.33
NorthWestern Corp	3	0.70	B+	3.33	nr	
Otter Tail Corp	3	0.90	B+	3.33	B	3.00
Pepco Holdings	3	0.75	B	3.00	B	3.00
Portland General Corp	2	0.75	B++	3.67	nr	
TECO Energy	2	0.85	B++	3.67	B	3.00
UIL Holdings	2	0.70	B++	3.67	B	3.00
Westar Energy	2	0.70	B++	3.67	B+	3.33
	2.3	0.74	B++	3.59	B	3.12
Gorman Proxy Group						
ALLETE	2	0.70	A	4.00	A	4.00
Alliant Energy Corp	2	0.70	A	4.00	B	3.00
American Electric Power Co.	3	0.65	B++	3.67	B	3.00
Avista Corp	2	0.70	A	4.00	A-	3.67
Cleco Corp	1	0.65	A	4.00	B	3.00
CMS Energy	3	0.75	B+	3.33	B	3.00
Consolidated Edison	1	0.60	A+	4.33	B+	3.33
DTE Energy	2	0.75	B++	3.67	B+	3.33
Edison International	3	0.75	B+	3.33	B	3.00
Great Plains Energy, Inc.	3	0.75	B+	3.33	B	3.00
IDACORP, Inc.	3	0.70	B+	3.33	B+	3.33
Integrys Energy Group	2	0.90	B++	3.67	B	3.00
Northeast Utilities	2	0.70	B++	3.67	B	3.00
NorthWestern Corp	3	0.70	B+	3.33	nr	
PG&E Corp	3	0.50	B++	3.67	B	3.00
Pinnacle West Capital Corp	2	0.70	B++	3.67	B	3.00
Portland General Electric	2	0.75	B++	3.67	nr	0.00
TECO Energy	2	0.85	B++	3.67	B	3.00
UIL Holdings	2	0.70	B++	3.67	B	3.00
Westar Energy	2	0.70	B++	3.67	B+	3.33
Wisconsin Energy Corp	1	0.60	A	4.00	A-	3.67
Xcel Energy Inc.	2	0.60	B++	3.67	B+	3.33
Average	2.2	0.70	B++	3.70	B	3.05
Morin Proxy Group						
Alliant Energy Corp	2	0.70	A	4.00	B	3.00
Avista Corp	2	0.70	A	4.00	A-	3.67
Black Hills Corp.	3	0.80	B+	3.33	B	3.00
CenterPoint Energy	2	0.80	B++	3.67	B	3.00
CMS Energy	3	0.75	B+	3.33	B	3.00
Consolidated Edison	1	0.60	A+	4.33	B+	3.33
Dominion Resources	2	0.65	B++	3.67	B+	3.33
DTE Energy	2	0.75	B++	3.67	B+	3.33
Duke Energy	2	0.60	A	4.00	A-	3.67
Integrys Energy Group	2	0.90	B++	3.67	B	3.00
MGE Energy	1	0.60	A	4.00	B+	3.33
Northeast Utilities	2	0.70	B++	3.67	B	3.00
NorthWestern Corp	3	0.70	B+	3.33	nr	
NV Energy	3	0.85	B	3.00	B	3.00
OGE Energy	2	0.75	A	4.00	A-	3.67
Pepco Holdings	3	0.75	B	3.00	B	3.00
PG&E Corp	3	0.50	B++	3.67	B	3.00
SCANA Corp.	2	0.65	B++	3.67	A-	3.67
Sempra Energy	2	0.80	A	4.00	A-	3.67
TECO Energy	2	0.85	B++	3.67	B	3.00
UIL Holdings	2	0.70	B++	3.67	B	3.00
UNS Energy	3	0.70	B+	3.33	A-	3.67
Vectren Corp.	2	0.70	A	4.00	B+	3.33
Wisconsin Energy Corp	1	0.60	A	4.00	A-	3.67
Xcel Energy Inc.	2	0.60	B++	3.67	B+	3.33
Average	2.2	0.71	B++	3.69	B+	3.28

1/ Indicator values as of first quarter of 2013.

Sources: Value Line Investment Survey, Standard & Poor's Stock Guide.

RISK INDICATORS

GROUP	VALUE LINE SAFETY	VALUE LINE BETA	VALUE LINE FIN STR	S & P STK RANK
S & P's 500 Composite	2.7	1.05	B++	B
Parcell Proxy Group	2.3	0.74	B++	B
Gorman Proxy Group	2.2	0.70	B++	B
Morin Proxy Group	2.2	0.71	B++	B+

Sources: Value Line Investment Survey, Standard & Poor's Stock Guide.

Definitions:

Safety rankings are in a range of 1 to 5, with 1 representing the highest safety or lowest risk.

Beta reflects the variability of a particular stock, relative to the market as a whole. A stock with a beta of 1.0 moves in concert with the market, a stock with a beta below 1.0 is less variable than the market, and a stock with a beta above 1.0 is more variable than the market.

Financial strengths range from C to A++, with the latter representing the highest level.

Common stock rankings range from D to A+, with the latter representing the highest level.

Exhibit No. ___ (DCP-13)
Dockets UE-121697, et al.
Witness: David C. Parcell

BEFORE THE WASHINGTON UTILITIES AND TRANSPORTATION COMMISSION

WASHINGTON UTILITIES AND TRANSPORTATION COMMISSION, **Complainant,** **v.** **PUGET SOUND ENERGY,** **Respondent.**	**DOCKETS UE-121697 and UG-121705 (*consolidated*)**
WASHINGTON UTILITIES AND TRANSPORTATION COMMISSION, **Complainant,** **v.** **PUGET SOUND ENERGY, INC.** **Respondent.**	**DOCKETS UE-130137 and UG-130138 (*consolidated*)**

EXHIBIT TO
TESTIMONY OF

David C. Parcell

ON BEHALF OF THE STAFF OF WASHINGTON UTILITIES AND TRANSPORTATION COMMISSION

Allowed Return on Equity and Common Equity Ratios for Electric Utilities in 2012 and 2013

December 3, 2014

AUTHORIZED RETURNS ON EQUITY FOR ELETRIC AND NATURAL GAS UTILITIES

	Regulatory Research		EEI
Period	Electric 1/	Gas	Electric
1Q 2012	10.30%	9.63%	10.84%
2Q 2012	9.92%	9.83%	9.92%
3Q 2012	9.78%	9.75%	9.78%
4Q 2012	10.05%	10.06%	10.05%
1Q 2013	9.73%	9.57%	10.23%
2Q 2013	9.84%	9.47%	9.77%
3Q 2013	9.83%	9.60%	10.06%
4Q 2013	9.81%	9.83%	9.90%
2012 Avg.	10.01%	9.94%	
2013 Avg.	9.80%	9.68%	

1/ Excludes Virginia surcharge/rider generation cases, as noted by RRA in its publication.

Sources: Regulatory Research Associates, Regulatory Focus; Edison Electric Institute, Rate Case Summary.