**BEFORE THE
WASHINGTON UTILITIES AND TRANSPORTATION COMMISSION**

WASHINGTON UTILITIES AND
TRANSPORTATION COMMISSION,

               Complainant,

    v.

PUGET SOUND ENERGY, INC.,

               Respondent.

**Docket No. UE-06____
Docket No. UG-06____**

**THIRTEENTH EXHIBIT (NONCONFIDENTIAL) TO THE
PREFILED DIRECT TESTIMONY OF
DR. ROGER A. MORIN
ON BEHALF OF PUGET SOUND ENERGY, INC.**

FEBRUARY 15, 2006

PUGET SOUND ENERGY, INC.

**THIRTEENTH EXHIBIT (NONCONFIDENTIAL) TO THE
PREFILED DIRECT TESTIMONY OF DR. ROGER A. MORIN**

CAPM, EMPIRICAL CAPM

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<p style="text-align:center">**FLOTATION COST ALLOWANCE**</p>

To obtain the final cost of equity financing from the investors' expected rate of return, it is necessary to make allowance for underpricing, which is the sum of market pressure, costs of flotation, and underwriting fees associated with new issues. Allowance for market pressure should be made because large blocks of new stock may cause significant pressure on market prices even in stable markets. Allowance must also be made for company costs of flotation (including such items as printing, legal and accounting expenses) and for underwriting fees.

I.   MAGNITUDE OF FLOTATION COSTS

According to empirical studies, underwriting costs and expenses average at least 4% of gross proceeds for utility stock offerings in the U.S. (See Logue & Jarrow: "Negotiations vs. Competitive Bidding in the Sale of Securities by Public Utilities", Financial Management, Fall 1978.)   A study of 641 common stock issues by 95 electric utilities identified a flotation cost allowance of 5.0%. (See Borum & Malley: "Total Flotation Cost for Electric Company Equity Issues", Public Utilities Fortnightly, Feb. 20, 1986.)

1   Empirical studies suggest an allowance of 1% for market pressure in U.S. studies.

2   Logue and Jarrow found that the absolute magnitude of the relative price decline due to

3   market pressure was less than 1.5%. Bowyer and Yawitz examined 278 public utility

4   stock issues and found an average market pressure of 0.72%. (See Bowyer & Yawitz,

5   "The Effect of New Equity Issues on Utility Stock Prices", Public Utilities Fortnightly,

6   May 22, 1980.)

7   Eckbo & Masulis ("Rights vs. Underwritten Stock Offerings: An Empirical

8   Analysis", University of British Columbia, Working Paper No. 1208, Sept., 1987) found

9   an average flotation cost of 4.175% for utility common stock offerings. Moreover,

10   flotation costs increased progressively for smaller size issues. They also found that the

11   relative price decline due to market pressure in the days surrounding the announcement

12   amounted to slightly more than 1.5%. In a classic and monumental study published in

13   the prestigious Journal of Financial Economics by a prominent scholar, a market pressure

14   effect of 3.14% for industrial stock issues and 0.75% for utility common stock issues was

15   found (see Smith, C.W., "Investment Banking and the Capital Acquisition Process,"

16   Journal of Financial Economics 15, 1986). Other studies of market pressure are reported

17   in Logue ("On the Pricing of Unseasoned Equity Offerings, Journal of Financial and

18   Quantitative Analysis, Jan. 1973), Pettway ("The Effects of New Equity Sales Upon

19   Utility Share Prices," Public Utilities Fortnightly, May 10 1984), and Reilly and Hatfield

20   ("Investor Experience with New Stock Issues," Financial Analysts' Journal, Sept.- Oct.

21   1969). In the Pettway study, the market pressure effect for a sample of 368 public utility

22   equity sales was in the range of 2% to 3%.   Adding the direct and indirect effects of

1 utility common stock issues, the indicated total flotation cost allowance is above 5.0%,

2 corroborating the results of earlier studies.

3   As shown in the table below, a comprehensive empirical study by Lee, Lochhead,

4 Ritter, and Zhao, "The Costs of Raising Capital," Journal of Financial Research, Vol.

5 XIX, NO. 1, Spring 1996, shows average direct flotation costs for equity offerings of

6 3.5% - 5% for stock issues between $60 and $500 million. Allowing for market pressure

7 costs raises the flotation cost allowance to well above 5%.

FLOTATION COSTS: RAISING EXTERNAL CAPITAL (Percent of Total Capital Raised)		
Amount Raised in $ Millions	Average Flotation Cost: Common Stock	Average Flotation Cost: New Debt
$2.00 – $9.99	13.28%	4.39%
$10.00 – $19.99	8.72%	2.76%
$20.00 – $39.99	6.93%	2.42%
$40.00 – $59.99	5.87%	1.32%
$60.00 – $79.99	5.18%	2.34%
$80.00 – $99.99	4.73%	2.16%
$100.00 – $199.99	4.22%	2.31%
$200.00 – $499.99	3.47%	2.19%
$500.00 and Up	3.15%	1.64%

8
9   Note: Flotation costs for IPOs are about 17 percent of the value of common stock issued if
10   the amount raised is less than $10 million and about 6 percent if more than $500
               million is raised. Flotation costs are somewhat lower for utilities than others.

11   Source: Lee, Inmoo, Scott Lochhead, Jay Ritter, and Quanshui Zhao, "The Costs of Raising
12   Capital," *The Journal of Financial Research,* Spring 1996.

13   Therefore, based on empirical studies, total flotation costs including market

14 pressure amount to approximately 5% of gross proceeds. I have therefore assumed a 5%

15 gross total flotation cost allowance in my cost of capital analyses.

II.   APPLICATION OF THE FLOTATION
COST ADJUSTMENT

The section below shows: 1) why it is necessary to apply an allowance of 5% to the dividend yield component of equity cost by dividing that yield by 0.95 (100% - 5%) to obtain the fair return on equity capital, and 2) why the flotation adjustment is permanently required to avoid confiscation even if no further stock issues are contemplated. Flotation costs are only recovered if the rate of return is applied to total equity, including retained earnings, in all future years.

Flotation costs are just as real as costs incurred to build utility plant. Fair regulatory treatment absolutely must permit the recovery of these costs. An analogy with bond issues is useful to understand the treatment of flotation costs in the case of common stocks.

In the case of a bond issue, flotation costs are not expensed but are rather amortized over the life of the bond, and the annual amortization charge is embedded in the cost of service. This is analogous to the process of depreciation, which allows the recovery of funds invested in utility plant. The recovery of bond flotation expense continues year after year, irrespective of whether the company issues new debt capital in the future, until recovery is complete. In the case of common stock that has no finite life, flotation costs are not amortized. Therefore, the recovery of flotation cost requires an upward adjustment to the allowed return on equity. Roger A. Morin, <u>Regulatory Finance</u>, Public Utilities Reports Inc., Arlington, Va., 1994, provides numerical illustrations that show that even if a utility does not contemplate any additional common

1   stock issues, a flotation cost adjustment is still permanently required. Examples there

2   also demonstrate that the allowance applies to retained earnings as well as to the original

3   capital.

4   From the standard DCF model, the investor's required return on equity capital is

5   expressed as:

6   $$K = D_1/P_o + g$$

7   If P_o is regarded as the proceeds per share actually received by the company from

8   which dividends and earnings will be generated, that is, P_o equals B_o, the book value per

9   share, then the company's required return is:

10   $$r = D_1/B_o + g$$

11   Denoting the percentage flotation costs 'f', proceeds per share B_o are related to

12   market price P_o as follows:

13   $$P - fP = B_o$$

14   $$P(1 - f) = B_o$$

15   Substituting the latter equation into the above expression for return on equity, we

16   obtain:

17   $$r = D_1/P(1-f) + g$$

18   that is, the utility's required return adjusted for underpricing. For flotation costs of 5%,

19   dividing the expected dividend yield by 0.95 will produce the adjusted cost of equity

1 capital.   For a dividend yield of 6% for example, the magnitude of the adjustment is 32

2 basis points: .06/.95 = .0632.

3   In deriving DCF estimates of fair return on equity, it is therefore necessary to

4 apply a conservative after-tax allowance of 5% to the dividend yield component of equity

5 cost.

6   Even if no further stock issues are contemplated, the flotation adjustment is still

7 permanently required to keep shareholders whole. Flotation costs are only recovered if

8 the rate of return is applied to total equity, including retained earnings, in all future years,

9 even if no future financing is contemplated. This is demonstrated by the numerical

10 example contained in pages 7-9 of this Appendix. Moreover, even if the stock price,

11 hence the DCF estimate of equity return, fully reflected the lack of permanent allowance,

12 the company always nets less than the market price. Only the net proceeds from an

13 equity issue are used to add to the rate base on which the investor earns. A permanent

14 allowance for flotation costs must be authorized in order to insure that in each year the

15 investor earns the required return on the total amount of capital actually supplied.

16   The example shown on pages 7-9 shows the flotation cost adjustment process

17 using illustrative, yet realistic, market data. The assumptions used in the computation are

18 shown on page 7. The stock is selling in the market for $25, investors expect the firm to

19 pay a dividend of $2.25 that will grow at a rate of 5% thereafter.   The traditional DCF

20 cost of equity is thus $k = D/P + g = 2.25/25 + .05 = 14\%$. The firm sells one share

21 stock, incurring a flotation cost of 5%. The traditional DCF cost of equity adjusted for

22 flotation cost is thus $ROE = D/P(1-f) + g = .09/.95 + .05 = 14.47\%$.

1   The initial book value (rate base) is the net proceeds from the stock issue, which

2   are $23.75, that is, the market price less the 5% flotation costs. The example

3   demonstrates that only if the company is allowed to earn 14.47% on rate base will

4   investors earn their cost of equity of 14%. On page 8, Column 1 shows the initial

5   common stock account, Column 2 the cumulative retained earnings balance, starting at

6   zero, and steadily increasing from the retention of earnings. Total equity in Column 3 is

7   the sum of common stock capital and retained earnings. The stock price in Column 4 is

8   obtained from the seminal DCF formula: $D_1/(k - g)$. Earnings per share in Column 6 are

9   simply the allowed return of 14.47% times the total common equity base. Dividends start

10   at $2.25 and grow at 5% thereafter, which they must do if investors are to earn a 14%

11   return. The dividend payout ratio remains constant, as per the assumption of the DCF

12   model. All quantities, stock price, book value, earnings, and dividends grow at a 5%

13   rate, as shown at the bottom of the relevant columns. Only if the company is allowed to

14   earn 14.47% on equity do investors earn 14%. For example, if the company is allowed

15   only 14%, the stock price drops from $26.25 to $26.13 in the second year, inflicting a

16   loss on shareholders. This is shown on page 9. The growth rate drops from 5% to

17   4.53%. Thus, investors only earn 9% + 4.53% = 13.53% on their investment. It is

18   noteworthy that the adjustment is always required each and every year, whether or not

19   new stock issues are sold in the future, and that the allowed return on equity must be

20   earned on total equity, including retained earnings, for investors to earn the cost of

21   equity.

ASSUMPTIONS:

ISSUE PRICE =	$25.00
FLOTATION COST =	5.00%
DIVIDEND YIELD =	9.00%
GROWTH =	5.00%
EQUITY RETURN =	**14.00%**
(D/P + g)	
ALLOWED RETURN ON EQUITY =	**14.47%**
(D/P(1-f) + g)	

Yr	COMMON STOCK (1)	RETAINED EARNINGS (2)	TOTAL EQUITY (3)	STOCK PRICE (4)	MARKET/ BOOK RATIO (5)	EPS (6)	DPS (7)	PAYOUT (8)
1	$23.75	$0.000	$23.750	$25.000	1.0526	$3.438	$2.250	65.45%
2	$23.75	$1.188	$24.938	$26.250	1.0526	$3.609	$2.363	65.45%
3	$23.75	$2.434	$26.184	$27.563	1.0526	$3.790	$2.481	65.45%
4	$23.75	$3.744	$27.494	$28.941	1.0526	$3.979	$2.605	65.45%
5	$23.75	$5.118	$28.868	$30.388	1.0526	$4.178	$2.735	65.45%
6	$23.75	$6.562	$30.312	$31.907	1.0526	$4.387	$2.872	65.45%
7	$23.75	$8.077	$31.827	$33.502	1.0526	$4.607	$3.015	65.45%
8	$23.75	$9.669	$33.419	$35.178	1.0526	$4.837	$3.166	65.45%
9	$23.75	$11.340	$35.090	$36.936	1.0526	$5.079	$3.324	65.45%
10	$23.75	$13.094	$36.844	$38.783	1.0526	$5.333	$3.490	65.45%
			5.00%	**5.00%**		**5.00%**	**5.00%**	

Yr	COMMON STOCK (1)	RETAINED EARNINGS (2)	TOTAL EQUITY (3)	STOCK PRICE (4)	MARKET/ BOOK RATIO (5)	EPS (6)	DPS (7)	PAYOUT (8)
1	$23.75	$0.000	$23.750	$25.000	1.0526	$3.325	$2.250	67.67%
2	$23.75	$1.075	$24.825	$26.132	1.0526	$3.476	$2.352	67.67%
3	$23.75	$2.199	$25.949	$27.314	1.0526	$3.633	$2.458	67.67%
4	$23.75	$3.373	$27.123	$28.551	1.0526	$3.797	$2.570	67.67%
5	$23.75	$4.601	$28.351	$29.843	1.0526	$3.969	$2.686	67.67%
6	$23.75	$5.884	$29.634	$31.194	1.0526	$4.149	$2.807	67.67%
7	$23.75	$7.225	$30.975	$32.606	1.0526	$4.337	$2.935	67.67%
8	$23.75	$8.627	$32.377	$34.082	1.0526	$4.533	$3.067	67.67%
9	$23.75	$10.093	$33.843	$35.624	1.0526	$4.738	$3.206	67.67%
10	$23.75	$11.625	$35.375	$37.237	1.0526	$4.952	$3.351	67.67%
			4.53%	**4.53%**		**4.53%**	**4.53%**	