

EXHIBIT NO. __ (RAM-1T)
DOCKET NO. UE-121697/UG-121705
DOCKET NO. UE-130137/UG-130138
WITNESS: DR. ROGER A. MORIN

**BEFORE THE
WASHINGTON UTILITIES AND TRANSPORTATION COMMISSION**

WASHINGTON UTILITIES AND
TRANSPORTATION COMMISSION,

Complainant,

v.

PUGET SOUND ENERGY, INC.,

Respondent.

DOCKET NOS. UE-121697
and UG-121705 (*consolidated*)

WASHINGTON UTILITIES AND
TRANSPORTATION COMMISSION,

Complainant,

v.

PUGET SOUND ENERGY, INC.,

Respondent.

DOCKET NOS. UE-130137
and UG-130138 (*consolidated*)

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

NOVEMBER 5, 2014

**REVISED
FEBRUARY 5, 2015**

1 **2. CAPM Estimates for PSE for the First Half of 2013**

2 **Q. What is the estimate of the risk-free rate in applying the CAPM for PSE for**
3 **the first half of 2013?**

4 A. All the noted interest rate forecasts that I am aware of point to significantly higher
5 interest rates over the next several years. Table 4 below reports the forecast
6 yields on 30-year U.S. Treasury bonds from three prominent sources: Global
7 Insight, Value Line, and Consensus Economics Inc.

8 **Table 4. 30-Year Treasury Yield Forecasts for First Half of 2013**

	2014	2015	2016	2017
Global Insight	4.1	4.6	5.3	5.4
Value Line	3.4	4.0	4.5	
Consensus Economics Inc.	3.4	4.4	5.1	5.4
AVERAGE	3.6	4.3	5.0	5.4

9 Global Insight forecasts a yield of 4.1% in 2014, 4.6% in 2015, 5.3% in 2016, and
10 5.4 in 2017 and thereafter. Value Line's quarterly economic review for
11 November 2012 forecasts a yield of 3.4% in 2014, 4.0% in 2015, and 4.5 in 2016.
12 Consensus Economics Inc.'s October 2012 edition forecasts a yield of 3.4% in
13 2014 rising to 5.4% in 2017.⁸ The average 30-year long-term bond yield forecast
14 from the three sources is 3.6% in 2014, 4.3% in 2015, 5.0% in 2016, and 5.4% in
15 2017. The average over the 2015-2017 period is 4.6%, which also matches the

⁸ Global Insight forecasts are for 30-year bonds, while both Value Line and Consensus Economics forecasts are for 10-year bonds. 50 basis points were added to the 10-year forecasts based on the historical 50 basis points spread between 10 and 30-year yields.

1 Global Insight 2015 forecast. The rising yield forecasts are also consistent with
2 the sharply upward-sloping yield curve observed at this time. Based on this
3 consistent evidence, a long-term bond yield forecast of 4.6% is a reasonable
4 estimate of the expected risk-free rate for purposes of the CAPM/Empirical
5 CAPM analyses for PSE for the first half of 2013.

6 **Q. How did you select the beta for the CAPM analysis for PSE for the first half**
7 **of 2013?**

8 A. I relied on a sample of widely-traded investment-grade dividend-paying
9 combination electric and gas utilities covered by Value Line that have (i) at least
10 50% of their revenues from regulated utility operations, and (ii) a market
11 capitalization that is more than \$1 billion. The average beta for this group is 0.72,
12 as shown on page 1, column 2, line 30, of Exhibit No. ___(RAM-6). Based on
13 this result, I used a beta 0.72 in the CAPM and Empirical CAPM analyses for
14 PSE for the second half of 2014.

15 **Q. What MRP did you use in the CAPM analysis for PSE for the first half of**
16 **2013?**

17 A. I used an MRP of 7.2% in the CAPM and Empirical CAPM analyses for PSE for
18 the first half of 2013. This estimate was based on the results of both forward-
19 looking and historical studies of long-term risk premiums, as shown on page 1,
20 column 2, line 8 of Exhibit No. ___(RAM-7).