Exhibit No. VN-1T
Dockets UE-090134/UG-090135
Witness: Vanda Novak

BEFORE THE WASHINGTON STATE
UTILITIES AND TRANSPORTATION COMMISSION

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

TESTIMONY

OF

VANDA NOVAK

STAFF OF
WASHINGTON UTILITIES AND
TRANSPORTATION COMMISSION

November 17, 2009

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I. INTRODUCTION

Q. Please state your name and business address?

A. My name is Vanda Novak and my business address is the Richard Hemstad Building, 1300 South Evergreen Park Drive Southwest, P.O. Box 47250, Olympia, Washington 98504. My e-mail address is vnovak@utc.wa.gov.

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

A. I am employed by the Washington Utilities and Transportation Commission ("Commission") as a Regulatory Analyst in the Energy section of the Regulatory Services Division. My current duties and responsibilities involve the analysis of revenue normalization adjustments in energy utility rate proceedings. I also participate in Staff's review of integrated resource plans filed by energy utilities.

Q. Please describe your educational background and professional experience.

A. I graduated from University of Washington in 2006 with a Bachelor of Arts degree in Mathematics. In 2007, I attended the annual regulatory studies program held by the National Association of Regulatory Utility Commissioners. I have also attended an Aurora software training session with EPIS.

I began my employment at the Commission in 2007. I have presented testimony before the Commission in Dockets UE-090134 and UG-090135 (Avista Utilities).

II. SCOPE AND SUMMARY OF TESTIMONY

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

A. My testimony presents Staff's review of Puget Sound Energy, Inc.'s ("PSE" or "the Company") temperature normalization adjustments for its natural gas and electric results of operations for ratemaking purposes. Specifically, I respond to the testimony of Company witness Molander as it relates to the topic of temperature normalization of the Company's natural gas and electricity sales revenues. The impacts of temperature normalization are included in Company and Staff Adjustment 10.01 and Adjustment 9.01.

Q. Please summarize your testimony regarding weather normalization.

A. The overall temperature normalization methodology used by PSE in this case is the same methodology accepted by the Commission in the Company's 2006 general rate case. The Company does propose three minor modifications to that methodology in this proceeding. I have reviewed the temperature normalization methodology used by the Company, including the proposed minor modifications, and find it to be acceptable.

Q. Did you prepare any exhibits in support of your testimony?

A. Yes. I prepared the following exhibits in support of my testimony:

- Exhibit No. VN-2, Company Response to Staff Data Request No. 186
- Exhibit No. VN-3, Company Response to Staff Data Request No. 187
- Exhibit No. VN-4, Company Response to Staff Data Request No. 188

II. DISCUSSION

Q. Why is a temperature normalization adjustment used for ratemaking purposes?

A. PSE's customers use electricity and natural gas for space heating. Consequently, temperature greatly affects usage of electricity and natural gas by the residential, commercial, and industrial classes. This effect is reflected in the Company's total revenues.

A temperature normalization adjustment presents to the Commission estimated electric and gas loads, and resulting revenue, as if weather had been "normal" during the test year. This ensures that rates are not set too high, if the test year was warmer than normal, or too low, if the test year was colder than normal. The primary purpose and intent is to measure what the revenues would be absent any deviations from a normal weather pattern.

Q. Generally speaking, how did the Company perform its temperature normalization calculation?

A. Company witness Molander explains the process as follows:

> PSE first compares actual daily loads for a multi-year time period to actual daily temperatures for the same multi-year period. This permits PSE to develop coefficients that describe the relationship between temperature and load. Regression analysis is used to isolate the incremental weather effects from other factors such as weekdays versus weekends, loads on holidays, or seasonal factors not related to temperature. The estimated weather effects on load are termed "weather sensitivity coefficients."
>
> Then, PSE uses the weather sensitivity coefficients and "normal" weather data to convert the actual test year loads to normal loads. PSE calculates the normal weather data from actual historical temperature data reported at Seattle-Tacoma

International Airport ("Sea-Tac") over the most recent 30-year period, which is from 1979 through 2008 for this case.[1]

She provides a detailed overview of the mechanics of the adjustment at Exhibit No. LIM-1T, pages 5-8 for the electric operations and pages 10-12 for the gas operations.

Q. Is the underlying methodology proposed by PSE for temperature normalization the same as was used in prior general rate cases of the Company?

A. Yes. The overall theory and method employed by PSE is the same as the Commission approved in the Company's 2006 general rate case, Dockets UE-060266 and UG-060267.[2] Staff and Company presentations in the 2007 general rate case, Dockets UE-072300 and UG-072301, used the same methodology as well, however, the case was resolved by settlement without any specific acceptance by the Commission of a temperature normalization methodology.

The Company has, in this case, made three relatively minor changes to the methodology. All of these changes improve the ability of the model to estimate consumer sensitivity to temperature, and are acceptable to Staff.

Q. Please describe the first change proposed by PSE to its temperature normalization methodology.

A. The first change allows the Company to better account energy use on each specific holiday, namely: New Year's Day, Christmas Eve, Christmas Day, Boxing Day, Fourth of July, Memorial Day, Labor Day, Thanksgiving Day, and the Friday after Thanksgiving Day. Previously all holidays were generalized under a single variable.

[1] Exhibit No. LIM-1T at 3:9-20.
[2] *WUTC v. Puget Sound Energy, Inc.*, Dockets UE-060266 and UG-060267, Order 08 at ¶163 (January 5, 2007).

This change is a slight improvement in accurately defining the holiday explanatory variable in the model, which will better specify consumer response to temperature. The Company's response to Staff Data Request No. 186 in Exhibit No. VN-2 shows the improvements in the statistics and resulting regression outputs.

Q. Please describe the second change proposed by PSE to the temperature normalization methodology.

A. The second change uses actual values of gas load curtailed in the gas interruptible and transportation weather adjustment models, instead of dummy variables on days when curtailment has occurred. This also allows for a slight improvement in the statistics as shown in the regression outputs. Exhibit No. VN-3, Company response to Staff Data Request No. 187.

Q. Please describe the third and final change proposed by PSE to the temperature normalization methodology.

A. In the gas rate schedules, therm usage is collected monthly. Thus, therm usage does not have the greater granularity found in KWh usage data, which are retrieved daily by the automated meter reading technologies, allowing for a better estimation of the true relationship between temperature and KWh use.

The Company, therefore, looked at the relationship between temperature and gas therm usage, quantified by heating degree day coefficients, over the entire winter period defined as the months of October through May, as well as a warmer shoulder period

encompassing June and September. Previously, coefficients were estimated for each of these individual heating months mentioned.

This change allows the Company to obtain two coefficients, one for shoulder period heating months and one for winter period heating months, which, in turn, allows the estimate of the load/temperature relationship to include more gas therm usage observations per coefficient. This approach proves to be more statistically robust as evidenced by the Company's response to Staff Data Request No. 188, Exhibit No. VN-4, which provides the regression outputs of the sensitivities to temperature for gas Schedules 23 and 31 customers.

Q. Do these three modifications change the fundamental approach of the Company's temperature normalization methodology, as approved in the 2006 general rate case

A. No. These modifications do not change the general model used to compute the temperature sensitivity of customers for the temperature normalization adjustments or the type of data used as inputs to the method approved by the Commission in the 2006 rate case.

Q. What is the effect of these changes to the temperature normalization adjustment proposed by PSE and accepted by Staff?

A. As stated by Company witness Molander at Exhibit No. LIM-1T, page 9, note 3, the change in the holiday variable decreases the electric system adjustment by 1,413 MWh (0.65 percent). The isolated impact of the modifications makes pro forma delivered loads

slightly larger than loads in the pro forma year would have been without the modifications.

The two modifications to the gas model decrease the gas system weather normalization adjustment by 314,260 therms (0.65 percent).

Q. Does this conclude your testimony?

A. Yes.