

BEFORE THE WASHINGTON UTILITIES AND TRANSPORTATION COMMISSION

**Docket Nos. UE-121697 and UG-121705
Puget Sound Energy, Inc. and NW Energy Coalition
Joint Petition for Approval of a Decoupling Mechanism**

**Docket Nos. UE-130137 and UG-130138
Puget Sound Energy, Inc. Expedited Rate Filing**

PUBLIC COUNSEL DATA REQUEST NO. 110

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Re: Dr. Michael J. Vilbert Rebuttal Testimony, p. 36, ll. 8-15.

- a. What is the r-squared result of Mr. Hill's initial regression of net revenues if "first differences" are accounted for? Please provide numerical support for your response.
- b. Please explain how the use of net income rather than net revenues impacts any "first differences" deficiencies in Mr. Hill's initial regression analysis. Please provide numerical support for your response.

Response:

- a. Attached as Attachment A to Puget Sound Energy, Inc.'s ("PSE") Response to Public Counsel Data Request No. 110 is the first differences regression discussed in the Prefiled Rebuttal Testimony of Dr. Michael J. Vilbert, Exhibit No. ____ (MJV-18T). The regression is of the year-over-year differences in each of the columns of values found on page 1 of Exhibit No. ____ (SGH-19). First differences are determined for the column Y (PSE Net Revenues), the column X1 (WA Gross State Product), and the column X2 (Heating Degree Days).

The adjusted R-squared value is shown as 0.26 on Attachment A to PSE's Response to Public Counsel Data Request No. 110. The R-squared value of 0.28 in the Prefiled Rebuttal Testimony of Dr. Michael J. Vilbert, Exhibit No. ____ (MJV-18T), at page 36, line 15, is a scrivener's error. The R-squared value should have been 0.26 and not 0.28.

The simple R-squared value is 0.38, but adjusted R-squared is a better measure. Overall, the results of the first differences regression indicate the R-squared

value of 0.90 used cited in the Prefiled Direct Testimony of Stephen G. Hill, Exhibit No. ____ (SGH-2T), is misleadingly high.

For the additional reasons discussed in the Prefiled Rebuttal Testimony of Dr. Michael J. Vilbert, Exhibit No. ____ (MJV-18T), Dr. Vilbert is not saying that simply substituting a first differences regression would put Mr. Hill's analysis on a reasonable footing. In Dr. Vilbert's view it would not.

- b. The use of net income would not solve the first differences deficiencies in Mr. Hill's regression analysis. The correlation would continue to be biased upward because it is between two magnitudes that show positive secular growth and trend together over time. This is the case for the values of WA gross state product, PSE's Net Revenues, and PSE's Net Income. Dr. Vilbert discussed net income because it is closer to market returns than net revenues, not because net income solves the trending issue in any way.