

**EXHIBIT NO. ___(DWH-10)
DOCKET NO. UE-060266/UG-060267
2006 PSE GENERAL RATE CASE
WITNESS: DAVID W. HOFF**

**BEFORE THE
WASHINGTON UTILITIES AND TRANSPORTATION COMMISSION**

**WASHINGTON UTILITIES AND
TRANSPORTATION COMMISSION,**

Complainant,

v.

PUGET SOUND ENERGY, INC.,

Respondent.

**Docket No. UE-060266
Docket No. UG-060267**

**FOURTH EXHIBIT (NONCONFIDENTIAL) TO THE
PREFILED REBUTTAL TESTIMONY OF
DAVID W. HOFF
ON BEHALF OF PUGET SOUND ENERGY, INC.**

AUGUST 23, 2006

**ESTIMATE OF ADDITIONAL COST
THE COMPANY WOULD INCUR TO CARRY OUT ADDITIONAL WORK
OF COLLECTING AND ANALYZING WEATHER ADJUSTMENT DATA
IF SO ORDERED BY THE COMMISSION**

Dr. Mariam outlined five steps that PSE should be ordered to take to improve the weather normalization adjustment (p. 8, lines 1-28, p. 9 lines 1-3). These steps, among other things, involve designing and implementing a load research study where hourly load data is collected for electric customers for three years and daily usage data for gas customers for five years.

Dr. Mariam also proposes that the Company collect information on housing and building characteristics such as square feet and age, family size, income, etc. This type of information is typically collected by a survey mailed to residential customers. For commercial and industrial customers, an on-site audit or walk-through by an engineer is commonly performed.

I estimate the total cost of the steps outlined by Dr. Mariam is about \$3,500,000 (about \$2,500,000 for electric and \$1,000,000 for gas). The cost of the hourly load data and the collection of housing/building characteristics (and other non-weather variables Dr. Mariam suggests) account for about 75% of the total project costs, and the remaining 25% are project design, implementation, sample tracking and maintenance (including the ongoing status reports Dr. Mariam is requesting), and analysis once the data collection phase of the project has been completed.

A key driver to the costs associated with the steps proposed by Dr. Mariam is how many customers will be included in the load study sample. We estimate a total of 5000 customers be included for each study (5000 for electric and 5000 for gas) in order to have a robust sample by

schedule and by county (as outlined by Dr. Mariam), accounting for customer hourly load data that will not be included in the analysis due to poor quality (e.g., too many missing intervals), and customers who do not respond to or do not wish to participate in the housing/characteristics survey. The estimated sample size of 5000 includes residential and weather-sensitive commercial and industrial customer classes. We have estimated the sample size to be similar for the gas study. These sample sizes may be refined (up or down) when there are detailed analyses performed on the customer population during the sample design phase of the study.

A summary of the estimated costs is provided on the following page:

Estimated Costs of Steps Proposed by Dr. Mariam:

	<i>Total Cost</i>	<i>Annual Costs</i>				
		Year 1	Year 2	Year 3	Year 4	Year 5
Electric Study, 3 years <i>hourly</i> load data						
Project set-up	\$135,500	\$135,500				
Ongoing study maintenance	\$240,000	\$80,000	\$80,000	\$80,000		
Cost of hourly load profile data	\$1,260,000	\$420,000	\$420,000	\$420,000		
Survey/audit data collection	\$715,000		\$715,000			
Analysis and model development	\$150,000			\$150,000		
 Total Electric Costs	 \$2,500,500	 \$635,500	 \$1,215,000	 \$650,000	 \$ --	 \$ --
 Gas Study, 5 years <i>daily</i> load data						
Project set-up	\$86,000	\$86,000				
Ongoing study maintenance	\$100,000	\$20,000	\$20,000	\$20,000	\$20,000	\$20,000
Survey/audit data collection	\$715,000		\$715,000			
Analysis and model development	\$150,000					\$150,000
 Total Gas Costs	 \$1,051,000	 \$106,000	 \$735,000	 \$20,000	 \$20,000	 \$170,000
 TOTAL COSTS	 \$3,551,500	 \$741,500	 \$1,950,000	 \$670,000	 \$20,000	 \$170,000