EXHIBIT NO. JOINT-6
DOCKET NO. UE-070725
WITNESSES: ERIC E. ENGLERT
SANDRA M. SIEG
DANIELLE O. DIXON
ANN E. GRAVATT
CHARLES M. EBERDT

BEFORE THE
WASHINGTON UTILITIES AND TRANSPORTATION COMMISSION

Amended Petition of **PUGET SOUND ENERGY, INC.** **For an Order Authorizing the Use of the Proceeds From the Sale of Renewable Energy Credits and Carbon Financial Instruments,**	**Docket No. UE-070725**

FOURTH EXHIBIT (NONCONFIDENTIAL) TO THE
PREFILED REBUTTAL JOINT TESTIMONY OF
ERIC E. ENGLERT, SANDRA M. SIEG, DANIELLE O. DIXON,
ANN E. GRAVATT, AND CHARLES M. EBERDT

FEBRUARY 18, 2010

BEFORE THE WASHINGTON UTILITIES AND TRANSPORTATION COMMISSION

Docket Nos. UE-070725
Amended Petition of Puget Sound Energy, Inc. For an Order Authorizing the Use of the Proceeds from the Sale of RECs and CFIs

PUBLIC COUNSEL DATA REQUEST NO. 004

PUBLIC COUNSEL DATA REQUEST NO. 004:

What is the estimated increase in the number of customers receiving benefits and the estimated total increase in annual energy savings (kWh) expected to result from PSE's proposed use of REC Proceeds to subsidize low-income renewable and energy efficiency programs?

Response:

Low-Income Energy Efficiency (PSE Residential Low Income Program)
Estimated increase in the number of customers receiving benefits is based upon:

1) The number of additional units that could be treated with energy efficiency measures had there been funding for energy-related repairs to allow for the installation of those measures.

The additional increase in annual energy savings is based upon 1) above, and

2) The number of additional units that received some energy efficiency benefits but could receive additional energy efficiency measures had there been funding for energy-related repairs to allow for the installation of those measures.

The REC Proceeds would provide a funding source for energy-related repairs that would result in an increased installation rate of energy efficiency measures that bring the highest rate of return of electric conservation savings for the Puget Sound Energy, Inc. ("PSE") Residential Low Income Program and are essential to lowering customer energy bills.

These measures, which treat the "shell" of a building, are:

- Ceiling Insulation
- Duct Insulation
- Floor Insulation
- Wall Insulation
- Windows
- Structure Sealing

Records show that of the units that receive the above shell measures, conservation savings average 2,825 kWh/unit. Those structures not receiving the above shell measures (but received some measures such as lighting fixture upgrades) average 961 kWh savings after program participation. This means that structures receiving the shell measures yield an additional 1,864 kWh savings/unit.

Of those structures that did not receive shell measures but did receive some program benefit such as lighting fixture upgrades (549 units total average), it is estimated that with additional repair funding at least 12-22% of these units could have received additional weatherization from shell measure improvements resulting in an additional **66-121 units** receiving measures from "deeper" weatherization. Deeper weatherization is defined as additional weatherization measures resulting from repairs that otherwise would not be installed.

Additional energy savings: 123,024 to 225,544 kWh saved/year (66 to 121 units * 1864 kWh/unit)

A walk-away is defined as a structure owned by an income eligible program participant that could not receive weatherization measures, either due to the fact the structure: 1) requires repair prior to weatherization and the repair could not be funded under the current program, 2) is degraded beyond repair, or 3) is already weatherized. With the additional funding, the program could capture the first category of walk-aways, those that require repairs prior to weatherization where the repair could not be funded under the current program. It is estimated that program production (number of units served each year) could increase by at least 10 to as much as 20% over current average units served due to the capture of these particular units.

Current average units served is 1,065 units/year. A 10 -20% increase in units served would result in an increase of **107 to 213 units** each year (1,065 units * 10-20%).

Additional energy savings: 302,275 to 601,725 kWh saved/year (107 to 213 additional units * 2,825 kWh savings/unit)

Total savings—Low Estimate: **123,024 kWh** (savings from deeper weatherization) + **302,275 kWh** (savings from walk away capture) = **425,299 kWh.**

Total savings—Medium Estimate: **205,040 kWh** (savings from deeper weatherization) + **452,000 kWh** (savings from walk away capture) = **657,040 kWh.**

Total savings—High Estimate: **225,544 kWh** (savings from deeper weatherization) + **601,725 kWh** (savings from walk away capture) = **827,269 kWh.**

Attached as Attachment A to PSE's Response to Public Counsel Data Request No. 004, please find the calculation of customers served and savings.

Low-Income Renewable Energy

If the amount provided for low-income renewable energy projects is $500,000 per year, that will be sufficient for about 70 kW of installed photovoltaic ("PV") panels at today's prices. Each kilowatt of installed PV will produce about 1,000 kWh of electricity per year for at least 20 years; hence the first year's projects would save at least 1,400,000 kWh over their lifetimes. Over time, the price of the PV systems is expected to continue to fall, which will result in greater kilowatt hour savings.

If the $500,000 is devoted to solar thermal hot water, then about 50 projects could be funded under today's prices. Each project would save 1,900 kWh per year, and the measure life of a project is 15 years, resulting in total savings of 1,425,000 kWh for all of the projects.

PSE has not predetermined percentage allocations to PV and solar thermal hot water systems, although it expects to see a mix of the resources to meet the needs of the region's low income housing stock, which includes both single family and multi-family housing.

Attachment A to PSE's Response to Public Counsel Data Request No. 004

Housing Type	**2008 Units Receiving 1 + shell measures**	**2009 Units Receiving 1+ Shell Measures***	**Average Units Receiving 1+ Shell Measures**	**Average savings per unit (kWh)**		
MF	260	338	299	1,166		
MH	166	163	165	3,633		
SF	33	73	53	3,675		
Total	459	574	517	**2,825**		
Housing Type	**Total 2008 Units Not Receiving Shell Measures**	**Total 2009 Units Not Receiving Shell Measures***	**Average Total Units Not Receiving Shell Measures**	**Average savings per unit (kWh)**	**Difference Average savings/unit receiving shell measure - Average savings for units that did not receive shell measures**	
MF	99	805	452	460		
MH	49	94	72	1621		
SF	10	40	25	802		
Total	158	939	**549**	**961**	**1864**	
*estimated at end of 2009						
Savings from Deeper Weatherization						
Average Units Not Receiving 1+ Shell Measures	**Increase in units receiving deeper weatherization--low)****	**Increase in units receiving deeper weatherization--medium)****	**Increase in units receiving deeper weatherization--high)****	**Increased Savings (kWh) --low**	**Increased Savings (kWh) --medium**	**Increased Savings (kWh) --high**
549	66	110	121	123,024	205,040	225,544
**Note: estimate is a weighted average of estimated increase in units served across all housing types						

low	*medium*	*high*				
12%	20%	22%				
15% increase MF units	20% increase MF units	20% increase MF units				
20% increase MH units	20% increase MH units	30% increase MH units				
20% increase SF units	30% increase SF units	30% increase SF units				
Savings from addl units served (units that would not be served under the current program--walk aways)						
Average Total Units served/year	**10% increase in program production (addl. units served/year)--low**	**Increase Savings (kWh)**	**15% increase in program production (addl. units served/year)--medium**	**Increase Savings (kWh)--medium**	**20% increase in program production (addl. units served/year)--high**	**Increase Savings (kWh)--high**
1,065	107	302,275	160	452,000	213	601,725
Total Potential Increase in Program Savings/Year						
Low Estimate						
Savings from Deeper Weatherization	**Savings from addl units served**	**Total**				
123,024	302,275	425,299				
Medium Estimate						
Savings from Deeper Weatherization	**Savings from addl units served**	**Total**				
205,040	452,000	657,040				
High Estimate						
Savings from Deeper Weatherization	**Savings from addl units served**	**Total**				
225,544	601,725	827,269				