EXHIBIT NO. \_\_\_(JOINT-1T) 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.

Docket No. UE-070725

For an Order Authorizing the Use of the Proceeds From the Sale of Renewable Energy Credits and Carbon Financial Instruments,

> JOINT TESTIMONY (NONCONFIDENTIAL) OF ERIC E. ENGLERT, SANDRA M. SIEG, DANIELLE O. DIXON, ANN E. GRAVATT, AND CHARLES M. EBERDT

> > **OCTOBER 7, 2009**

# JOINT TESTIMONY (NONCONFIDENTIAL) OF ERIC E. ENGLERT, SANDRA M. SIEG, DANIELLE O. DIXON, ANN E. GRAVATT, AND CHARLES M. EBERDT

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I		I. INTRODUCTION AND PURPOSE OF JOINT TESTIMONY
2		<b>Qualifications of Eric E. Englert</b>
3	Q.	Please state your name and the party for whom you are appearing.
4	A.	My name is Eric E. Englert, and I am appearing on behalf of Puget Sound Energy,
5		Inc. ("PSE" or the "Company"). My qualifications are presented in Exhibit
6		No(EEE-1).
7		Qualifications of Sandra M. Sieg
8	Q.	Please state your name and the party for whom you are appearing.
9	A.	My name is Sandra M. Sieg, and I am appearing on behalf of PSE. My
10		qualifications are presented in Exhibit No(SMS-1).
11		<b>Qualifications of Danielle O. Dixon</b>
12	Q.	Please state your name and the party for whom you are appearing.
13	A.	My name is Danielle Dixon, and I am appearing on behalf of the NW Energy
14		Coalition ("NWEC"). My qualifications are presented in Exhibit No(DOD-1).
15		<b>Qualifications of Ann E. Gravatt</b>
16	Q.	Please state your name and the party for whom you are appearing.
17	A.	My name is Ann Gravatt, and I am appearing on behalf of Renewable Northwest
18		Project ("RNP"). My qualifications are presented in Exhibit No(AEG-1).
19		<b>Qualifications of Charles M. Eberdt</b>
20	Q.	Please state your name and the party for whom you are appearing.
21	A.	My name is Charles Eberdt, and I am appearing on behalf of The Energy Project.
22		My qualifications are presented in Exhibit No(CME-1).
	JOIN	T TESTIMONY Exhibit No(JOINT-1T) Page 1 of 21
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## Q. What is the purpose of this Joint Testimony?

A. PSE is proposing to use proceeds from its sale of Renewable Energy Credits

("REC") and Carbon Financial Instruments ("CFI"), as set forth in PSE's

Amended Petition For an Order Authorizing the Use of the Proceeds From the Sale

of Renewable Energy Credits and Carbon Financial Instruments ("Amended

Petition"). This Joint Testimony focuses on the proposal to use a portion of such

proceeds to fund low-income programs.

# II. GENERAL DESCRIPTION OF RECs, CFIs AND THE PROPOSED ALLOCATION TO LOW-INCOME PROGRAMS

# Q. Please explain RECs.

A. RECs are intangible assets that represent the right (which may be a contractual right) to claim the non-power attributes of a renewable generation facility associated with electricity generated from that facility. As defined in RCW 19.285.030(13), non-power attributes means all environmentally related characteristics, exclusive of energy, capacity reliability, and other electrical power service attributes, that are associated with the generation of electricity from a renewable resource, including but not limited to the facility's fuel type, geographic location, vintage, qualification as an eligible renewable resource, and avoided emissions of pollutants to the air, soil, or water, and avoided emissions of carbon dioxide and other greenhouse gases.

RECs can be used by individuals and businesses to reduce their carbon footprints, either through direct purchase or through participation in a utility-offered green power program,<sup>1</sup> and by electric utilities to demonstrate compliance with a renewable portfolio standard ("RPS"). Many states (including Washington) allow utilities to comply with an RPS through the acquisition of renewable energy credits.<sup>2</sup> RECs are characterized by the number of megawatt-hours ("MWh") generated (1 REC = 1 MWh) by renewable energy sources.

- Q. Please briefly explain the Washington renewable portfolio standard and PSE's compliance with this standard.
- A. PSE must demonstrate its compliance with the Energy Independence Act targets set forth in RCW 19.285.040(2) by January 1, 2012, and each year thereafter. To meet these targets, PSE must demonstrate that it is using eligible renewable resources or that it is acquiring equivalent RECs to meet 3% of its load by 2012, 9% of its load by 2016, and 15% of its load by 2020. PSE's renewable resources will provide PSE with a surplus of RECs—over and above the statutory requirements—for at least the next several years.

<sup>&</sup>lt;sup>1</sup> RCW 19.29A.090 requires utilities to provide retail electricity customers with a voluntary option to purchase qualified alternative energy resources.

<sup>&</sup>lt;sup>2</sup> RCW 19.285.040(2).

# Q. Why are these surplus RECs valuable?

A. As discussed previously, these surplus RECs are valuable because they may be sold in REC markets to other electric utilities that need the RECs to satisfy renewable portfolio requirements. REC markets are in the earlier stages of development and vary from state to state, but a confluence of factors has presented a market opportunity for PSE to sell surplus RECs.

## Q. Please explain PSE's status with respect to CFI proceeds.

A. PSE holds proceeds from the sale of CFIs as a result of the Company's participation in the Chicago Climate Exchange ("CCX"). CCX is a greenhouse gas emission registry, reduction and trading system for all six greenhouse gases. In February 2007, PSE formally joined CCX as a Phase 1 member. CCX members, including PSE, pledged to reduce emissions by 1% per year in Phase I, for a total 4% reduction in four years. Those members that reduce their emissions below the target have surplus allowances to sell, and those members who emit above the targets comply by purchasing CFIs from other members of CCX. PSE successfully reduced greenhouse emissions to below the target compared to the baseline data through reduced operation of its thermal generation fleet and thus had surplus allowances to sell. In Phase I there was a maximum amount of credits that a member was allowed to sell each year, and PSE became eligible to trade a certain quantity of CFIs that it had banked. PSE's net proceeds from sales of the CFIs are approximately \$700,000.

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19 20 Q. How much money has PSE received to date from the sale of RECs and CFIs?

- A. PSE's existing funds (i.e., prior to any California RPS-eligible electric energy sales) from the sale of RECs and CFIs amount to approximately \$10 million. Additional sales of RECs have recently begun that will increase this amount.
- Q. Please describe the proposal to allocate a portion of proceeds from the sale of **RECs and CFIs to low-income programs.**
- A. PSE maintains approximately \$10 million in REC and CFI proceeds in a segregated account from sales of RECs and CFIs prior to any California RPSeligible electric energy sales. We propose that these existing proceeds from previous sales, plus approximately \$10 million from proceeds of expected additional REC sales, for a combined total of \$20 million, be allocated as additional funds for low-income energy efficiency and renewable energy programs as described in more detail later in this Joint Testimony. The total proceeds from PSE's sales of RECs and CFIs – including proceeds from both previous and expected sales -- are expected to be substantially greater than the \$20 million proposed in this Joint Testimony for low-income programs.
- Q. Has the Legislature issued any policy direction that would be applicable to the low-income funding proposal?
- Yes, the Legislature enacted the Low-Income Residential Weatherization Program, A. RCW Chapter 70.164. By enacting this law, the Legislature has established low-

income weatherization as an important public policy of the state and has recognized its benefits—for low-income residents as well as for all citizens of the state:

The legislature finds and declares that weatherization of the residences of low-income households will help conserve energy resources in this state and can reduce the need to obtain energy from more costly conventional energy resources. The legislature also finds that rising energy costs have made it difficult for low-income citizens of the state to afford adequate fuel for residential space heat. Weatherization of residences will lower energy consumption, making space heat more affordable for persons in low-income households. It will also reduce the uncollectible accounts of fuel suppliers resulting from low-income customers not being able to pay fuel bills.

The program implementing the policy of this chapter is necessary to support the poor and infirm and also to benefit the health, safety, and general welfare of all citizens of the state.

RCW 70.164.010. The Legislature has defined "weatherization" broadly to include:

activities that use funds administered by the department for one or more of the following: (a) Energy and resource conservation; (b) energy efficiency improvements; (c) *repairs, indoor air quality improvements*, and health and safety improvements; and (d) client education.

RCW 70.164.020 (emphasis added). The law establishes a low-income weatherization assistance account, which is funded by various sources<sup>3</sup> including appropriations by the Legislature. The law directs the Department of Commerce to allocate funds appropriated from the low-income weatherization assistance

account among proposals in a way that will, among other criteria, "[i]dentify and correct, to the extent practical, health and safety problems for residents of low-income households, including asbestos, lead, and mold hazards." RCW 70.164.040.

The Legislature has also demonstrated the importance of low-income energy assistance in RCW 80.28.068:

Upon request by an electrical or gas company, or other party to a general rate case hearing, the commission may approve *rates*, *charges*, *services*, *and/or physical facilities* at a discount for low-income senior customers and low-income customers. Expenses and lost revenues as a result of these discounts shall be included in the company's cost of service and recovered in rates to other customers. (Emphasis added)

- Q. Did the Legislature expand its policy guidance regarding low-income energy services during the most recent session?
- A. Yes. The statutes referenced above include amendments adopted during the 2009 session. For example, the definition of weatherization in RCW 70.164.010 was expanded to specifically include energy-related repairs and health and safety improvements, among other weatherization activities.

<sup>&</sup>lt;sup>3</sup> PSE is a sponsor of the Energy Matchmakers Program set forth in the law.

# III. DESCRIPTION OF PROPOSED LOW-INCOME

#### **PROGRAMS**

- Q. Please describe how the funds allocated to low-income programs would be used.
- A. The proceeds from the sale of RECs and CFIs allocated to low-income programs would be used for: (1) energy efficiency measures and energy-related repairs; and (2) renewable energy systems for low-income residential locations. These two categories are discussed below.

# **Energy Efficiency Measures and Energy-Related Repairs**

PSE would use a portion of REC and CFI proceeds for energy efficiency measures to supplement and enhance existing efforts. The use of these proceeds in this manner would not supplant any existing program funds or preclude future additional funding for low-income programs from other sources. These measures cover the full spectrum of energy efficiency measures, including but not limited to energy education, home audit or assessment, installation of baseload and shell measures, and inspections.

Additionally, PSE would use a portion of REC and CFI proceeds for energy-related repairs that are necessary in order to install energy efficiency measures safely and properly in some low- income homes. One of the greatest obstacles to making low-income homes more energy efficient is the degraded condition of the

structures themselves, as recognized by the Legislature in RCW 70.164.020 (discussed above). The necessity for repairs essentially strands the potential energy conservation that could be captured. An energy-related repair is a repair that is necessary (1) to install an energy efficiency measure properly, (2) to protect the health and/or safety of the occupants, (3) to address an existing problem that energy efficiency retrofit could aggravate (*e.g.*, moisture/mold problem), or (4) to protect the integrity of an installed energy efficiency measure. The following are representative examples of measures the categories above might include (but not be limited to): (1) removal of knob and tube wiring prior to installing attic insulation, (2) combustion safety/carbon monoxide testing or electrical service repair, (3) ensuring adequate ventilation in moisture producing rooms, and (4) roofing or siding repair to protect insulation.

### Renewable Energy Systems for Low- Income Residential Locations

Additionally, PSE would use a portion of REC and CFI proceeds to further the application of small-scale renewable energy resources to benefit low-income occupants. These renewable energy resources could include solar thermal hot water and photovoltaic systems.<sup>4</sup> For example, community action agencies may identify low-income single family or multi-family residences that would be appropriate sites for solar thermal hot water or photovoltaic systems, install those

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<sup>&</sup>lt;sup>4</sup> Depending on how quickly the technology develops, other renewable systems may be deemed appropriate.

systems, and provide technical expertise with post-installation maintenance. These funds could help provide the benefits of renewable energy – clean, stable priced power – to a community that might not otherwise be able to afford the up front cost of such an investment. Ultimately, the use of such funds for these purposes would expand the capacity of the eligible low-income agencies to install and maintain small-scale renewable systems, encourage a greater proliferation of renewable technology, and develop a skilled support network. And this aspect of the proposal ensures that at least some money from the sale of RECs goes directly into supporting additional renewable energy.

- Q. Is there precedent for northwest utilities reinvesting money from REC sales in renewable resources?
- A. Yes. In its Order No. 07-083 ("Order"), the Oregon Public Utility Commission addressed Portland General Electric's ("PGE") application for approval to sell tradable renewable energy credits. The Order provides in part:

PGE will clearly communicate to customers that the Tradable Renewable Energy Credits from renewable resources meeting customers' energy needs may be sold, that the renewable energy attributes have been sold when the company sells RECs, that such sales may result in lower customer electric bills <a href="mailto:and/or acquisition">and/or acquisition</a> of additional renewable resources, and that any renewable energy associated with REC sales will be based on net system mix for reporting purposes. (Emphasis added)

The Board of Commissioners of Snohomish County Public Utility District (the "District") decided on August 4, 2009, to sell 100 percent of the utility's surplus

RECs between 2009 and 2011. The Commissioners also unanimously directed the utility's General Manager to use the revenues from such REC sales to fund the District's renewable research and development projects and to reduce the District's renewable power costs.

PSE's voluntary Green Power Program buys RECs on behalf of its customers and directly supports the development of new renewable energy projects. The Green Power Program has been directly responsible for new dairy digester projects coming online. Further, the Program has provided funding for six solar demonstration projects. In addition, both PGE and PacifiCorp have used excess funds from green power program sales in Oregon for small renewable projects, and PacifiCorp and Clark County Public Utility District have done so in Washington.

- Q. Are you aware of any other examples of utilities investing in renewables for the low-income sector?
- A. The most significant program of which we are aware comes from California. The California General Assembly and the California Public Utilities Commission have championed initiatives for more than \$200 million to fund solar photovoltaic systems for low-income households over a ten-year period: one half for multifamily dwellings and one half for single family residences.

In the northwest, a portion of Northwestern Energy's Universal System Benefit ("USB") funds designated for renewables have been used for projects designed to

benefit low-income communities and seniors. Since 1999, 38 low-income projects have been funded by the renewable USB funds, including the state's largest solar array (50 kW) located on the South Forty low-income elderly apartment complex in Billings, Montana. Finally, Oregon's net metering statute (ORS 757.300) includes low-income energy assistance as one potential use for excess energy credits at the end of the annual billing cycle.

# Q. How would the funds for low-income assistance be allocated between these two categories of low-income programs?

A. The proposed allocation of funds between the two low-income programs would be as follows: 80% allocated for low-income energy efficiency measures and energy-related repairs, and 20% allocated to install renewable energy systems. If, in the future, funding from other sources – *e.g.*, from legislative appropriations - increases to address the need for energy-related repairs and to install energy efficiency measures, or as the community action agencies become proficient in installing and maintaining small-scale renewable energy systems, more of the REC and CFI proceeds can be allocated to the renewable energy systems program. PSE will convene interested parties for purposes of determining funding allocations and program design as necessary.

# Q. How was the proposed allocation determined?

A. The majority of these funds would be allocated to energy efficiency based on the significant need for repair funds to more effectively implement energy efficiency measures, and because energy efficiency should be optimized before renewable and other supply-side resources are implemented. The remaining portion of the funds would be allocated to renewable energy systems in order to allow low-income families to take advantage of the availability of smaller scale renewable systems for the residential market.

# Q. What would be the process for changing the allocation?

- A. As other funding sources become available or as the community action agencies develop greater in-house expertise in the renewable sector, PSE, the participating low-income agencies, and other stakeholders would initiate discussions about a possible reallocation. This discussion may happen, for example, when costs for solar photovoltaic materials and installation decline further. PSE will also convene interested parties for purposes of determining program design as necessary.
- Q. What is your proposed timeframe for expending the REC and CFI funds on low-income energy efficiency, repairs, and renewable energy applications?
- A These funds would be used over the course of approximately the next seven years.

 Q. Why do you propose spending the allocated funds over a seven-year period?

A. We chose a multi-year period to allow agencies to ramp up to a steady implementation of the funds and to enhance the application of energy efficiency over several years. By comparison, the funds currently available for repairs do not meet the needs for even one full year. The seven- year time frame also allows reasonable time for the increased applicability of small scale renewables.

### IV. BENEFITS OF THE LOW-INCOME PROGRAMS

- Q. Will the low-income applications described above be cost-effective?
- A. The implementation of these funds over several years will not significantly impact the overall cost-effectiveness of PSE's energy efficiency program. On an annual basis, the increased expenditure is a small fraction of PSE's demand-side management program budget. We expect that employing these funds in the low-income energy efficiency program will increase the savings gained from that program. A chief goal in using the funds for repairs is to capture measures or entire units that would otherwise be passed over.
- Q. Is there a need in PSE's service territory for energy-related repairs that is not currently being met by existing funding sources?
- A. Yes. Perhaps the greatest barrier to low-income energy efficiency is the poor condition of the low-income housing stock that PSE serves. The lack of

maintenance and the need for repair funds are high with low-income homes, even in gas-heated homes. The majority of the homes assessed by the community action agencies require some repair.

Existing funding sources are: (1) inadequate to begin with; (2) diminishing; and (3) subject to increasing competition from other purposes. For example, PSE's low-income energy efficiency program currently funds energy-related repairs through a shareholder-funded account, but because of the significant need for these repairs, the annual funding of \$300,000 is quickly exhausted. As a result, low-income agencies are forced to reject income-eligible customers when repair dollars are insufficient to cover necessary work prior to installation of weatherization measures. The Energy Matchmaker and HOME funds for 2010 now amount to the same amount supplied by Energy Matchmaker alone previously and must be spread across the entire state.

Further, some agencies previously had a set-aside from Community Development Block Grant funds for housing repairs. A few years ago the rules governing those funds changed. Now housing repairs have to compete with other projects – like sewer development or roads and bridges – and the county can only apply for one type of project. The U.S. Department of Energy's ("DOE") Weatherization Assistance Program ("WAP") has an allowance for weatherization-related repair that has not changed in ten years or more. Its funds allow a maximum of \$550 per

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house with a program average of \$200 per house. Something as minor as replacing a faulty bath can quickly exceed the maximum allowance.

- Q. Will the influx of funds from the federal stimulus package help pay for the needed energy-related repair work?
- No. The influx of funds from the American Recovery and Reinvestment Act A. ("ARRA") has actually exacerbated the problem of having insufficient funds for energy-related repairs. The ARRA does not provide funding for repairs greater than already provided in the standard DOE WAP. The result is even greater pressure to spend energy efficiency dollars, with insufficient repair funds to ensure an effective program.
- Q. Is there precedent in Washington State for a utility to fund energy-related repairs in low-income homes?
- A. Yes. Both Avista and PacifiCorp have programs that allow for funding of energyrelated repairs. In Docket Nos. UE-080416 and UG-080417 (consolidated), Commission Order 08 (Appendix A, Section D), the Commission authorized Avista to dedicate up to 15 percent of low-income demand-side management expenditures for energy-related health and safety measures. In PacifiCorp's case, the Commission approved revisions to Schedule 114 – PacifiCorp's low-income weatherization program -- in January 2009, as part of Docket No. 082180. The goal of those program revisions, as detailed in the filing, was for the low-income

agencies to walk away from fewer homes, in part through providing funds for energy-related repairs. The Commission approved increasing the Company's rebates on eligible repairs to an agency to 15 percent of the annual reimbursement received for energy efficiency measures. While these changes are improvements, the amount allowed for repairs is insufficient to address the need and does not significantly increase the acquisition of low-income energy efficiency.

## Q. What is the rate impact of this proposal?

- A. If the \$20 million proposed to be used for low income programs were directly returned to all ratepayers over the same seven-year period, it would have a minimal impact on lowering rates. For a residential customer it would lower the average monthly bill by approximately 0.14%. For all other customers, on average it would lower the average monthly bill by approximately 0.15%.
- Q. Please explain how funding the low-income program with REC and CFI proceeds is in the public interest.
- A. As discussed above, the Legislature has recognized the importance of energy efficiency measures for low-income households, including repairs and improvements to low-income homes in order to allow weatherization and energy efficiency measures to be installed. Using proceeds from the sale of RECs and CFIs to fund energy efficiency measures and related repairs allows PSE to reach homes it otherwise could not reach. Specifically, REC and CFI funds would be

applied toward material and labor costs associated with measures such as mold and mildew abatement, electrical repair, roof and siding repair, installation of mechanical ventilation, and furnace repair—all necessary repairs before weatherization measures, such as insulation, ducting sealing, and air sealing (all PSE tariff program measures) can be installed or completed. Further, REC and CFI funds would provide for other needed program components such as in-home energy education that are limited by current program funding.

Providing energy efficiency measures to more low-income customers will result in lower energy consumption, which is in the public interest. Additionally, reducing home energy bills will help keep those households connected to vital services and make it more likely they can pay their bills. There is also a sizable public benefit from the preservation of the affordable housing stock. By comparison, construction of new housing costs hundreds of thousands of dollars per unit.

Furthermore, most agencies will employ private contractors to do the needed repair work. The people performing energy-related repairs can be put to work right away without the training needed for weatherization workers.

It is also in the public interest to fund low-income renewable energy programs.

Currently new small renewable energy systems, such as residential solar systems, produce electricity at a cost higher than existing central power plants that consume fossil fuels. Having renewable energy available to all economic strata is in the public interest both for lower long run costs and educational purposes. Distributed

renewable energy provides a variety of important public benefits including reduced electricity consumption resulting in bill savings, cleaner air, a more efficient use of the electric distribution system, a more efficient use of generation resources, reduction in peak capacity demand, and improved system reliability and grid benefits by locating resources closer to load.

# Q. Can these programs be administered in a way that coordinates with PSE's existing programs?

A. Yes. In fact, the availability and use of these funds from REC and CFI sales would greatly enhance the work the WAP providers currently perform for PSE by enabling them to seize opportunities for implementing energy efficiency that would otherwise be missed due to lack of money for energy-related repairs. The end result: agencies could serve more low-income residences. The agencies are in frequent contact with PSE staff regarding the program progress and ways to improve delivery, etc. The implementation of these funds would be part of that regular review.

Furthermore, it would not be necessary for PSE to develop a new and separate program to administer these funds, particularly those related to low-income energy efficiency and energy-related repairs. The current PSE Low-Income Weatherization program already tracks and makes payments for work according to funding source. As such, this allocation would simply be treated as an additional funding source. In addition, current tracking and reporting capabilities could be

modified to accommodate ongoing review processes for this funding and would provide regular status reports as needed.

Currently, PSE administers a small scale renewable electricity generation grant program for school-based renewable projects. The program is part of its electricity energy efficiency program, administered under Tariff Schedule 248. Grants for the development of small scale renewable electricity projects are awarded for school-based renewable energy projects based on selected criteria. The new proposed small-scale renewable low-income program could be administered under a similar structure. PSE would consult with interested parties to develop for filing a new schedule for these funds that would be available to agencies that currently administer low-income programs ("Agencies" as defined in PSE's Schedule 129) and utilize existing processes. Selection criteria would be developed as part of this new tariff schedule to evaluate requests for funding that could include criteria such as the following used in Schedule 248:

Energy Efficiency: The residential site must demonstrate that it will maximize energy efficiency through the implementation and use of proven measures.

Geographic Diversity: Project grants will consider location to ensure that projects are distributed among urban and rural areas.

Cultural Community Diversity: Evaluation will consider the community the project will serve.

Demonstration of qualified management: The proposal needs to show qualified management is in place for the long-run operation and maintenance of the project. Project Characteristics: The proposal needs to show energy reduction and intelligent consideration and use of available natural resources. Appropriate size and technology will be considered.

- Does this conclude your testimony? 2 Q.
  - A. Yes, it does.