



August 13, 2004

Ms. Carole J. Washburn  
Executive Secretary  
Washington Utilities and Transportation Commission  
1300 S. Evergreen Park Drive SW  
P.O. Box 47250  
Olympia, WA 98504-7250

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Docket: UE-970686

RE: Semi-Annual Report of Demand Side Management (DSM) Programs

Dear Ms. Washburn:

Enclosed is an original and three copies of Puget Sound Energy's semi-annual report covering its DSM programs in 2004. This submission contains a progress report on the results of the 2004 DSM programs through June 30, 2004, and a summary of accounting for each of the DSM programs for the same period.

This report is prepared in accordance with the Second Supplemental Order under Docket No. UE-970686, Requiring Reporting on Programs Funded by the Tariff Rider Mechanism.

Please contact me in Bellevue at (425) 462-3885 if there are any questions.

Sincerely,

John Story  
Director, Cost & Regulation

Enclosure

cc: Simon J. Ffitch



**Semi-Annual Report  
For Demand Side Management (DSM) Programs  
January – June, 2004**

**August 13, 2004**

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## Executive Summary

This semi-annual report of Puget Sound Energy's (PSE) current Energy Efficiency Services (EES) associated with the electric Rider and gas Tracker, covers the period January, 2004 through June, 2004. During the first half of 2004, EES programs under the electric Rider and gas Tracker saved 45,231 MWh at a cost of \$6,786,454 and 910,495 therms at a cost of \$1,434,716. In addition, under BPA's Conservation and Renewables Discount (C&RD) program, PSE saved an additional 5,379 MWh in first year savings at a cost of \$1,576,255. Detailed Rider/Tracker program numbers are available in Table 1.

The first-half of 2004 marked the beginning of a new conservation tariff period spanning 2004 and 2005 that effectively continues ongoing programs and initiates a number of new pilot programs. The table below shows how PSE has done thru June in comparison to one-year budget and savings goals for electric and gas energy efficiency programs (including BPA C&RD programs). The majority of energy efficiency projects are projected to be completed in the last quarter of 2004. Based on jobs in-progress, current projections are that PSE will achieve 100% of the savings goals on or under budgets.

### 6-Month (Jan., 2004 – June, 2004) EES Program Summary

<u>PROGRAM INFO</u>	<u>ACTUALS</u>	<u>BUDGET/ TARGET</u>	<u>% Total</u>
<b>ELECTRIC Costs</b>	<b>\$8,362,709</b>	<b>\$26,109,000</b>	<b>32%</b>
<b>MWH Savings</b>	<b>50,610</b>	<b>171,514</b>	<b>30%</b>
<b>GAS Costs</b>	<b>\$1,434,714</b>	<b>\$ 4,553,000</b>	<b>32%</b>
<b>THERM Savings</b>	<b>910,495</b>	<b>2,506,740</b>	<b>36%</b>

Creation of electric and gas conservation potential and the integration of resulting supply curves into least cost planning models is on-going and an Energy Efficiency Request For Proposals has been issued and a short-list of competitive proposals developed.

## Program Descriptions

### **Residential & Commercial Energy Efficiency Information Services, Schedules E200/G206 and E260/G260**

These programs consist of four components that complement each other to provide information regarding customer programs and efficiency improvements tailored to customers' interests and energy-use concerns.

#### Personal/Business Energy Profile

The Personal Energy Profile and Business Energy Profile are free energy self-audit surveys, with PSE follow-up analysis and a report that provides customers with specific and customized energy efficiency recommendations. These services identify current energy costs and consumption by end-use, and provide a list of specific recommendations for energy efficiency opportunities and their associated savings estimates. Personal Energy Profile, for residential customers is available by mail or online at [www.pse.com](http://www.pse.com). Business Energy Profile is available online only.

#### Energy Advisors

Specially trained and dedicated call representatives provide all customer sectors direct access to PSE's array of energy efficiency services through a toll-free number. Energy Advisors discuss with customers, one-on-one, the potential benefits of various conservation programs, eligible incentives where applicable, and introduce related products and services.

#### Energy Efficiency Brochures

PSE provides brochures and how-to guides on various energy efficiency opportunities, including behavioral measures, low-cost equipment, weatherization measures, major weatherization improvements, and equipment upgrades. This information includes investment and savings estimates where appropriate. These brochures are available to customers in paper form and online at the PSE Web site.

#### On Line Services

To assist customers with information and questions, a section of the PSE web site ([www.pse.com](http://www.pse.com)) is dedicated to energy efficiency and energy management for customers that prefer on-line services. The site includes on-line versions of the Personal Energy Profile and Business Energy Profile. PSE now sends "Energy at Home", a quarterly e-newsletter promoting energy efficiency services. This free service contains articles about energy efficiency, timely seasonal tips, links to PSE program information and coupons for energy efficient products. A similar bimonthly "Energy in Business" e-newsletter features case studies of PSE energy efficiency projects, as well as announcements of upcoming training opportunities. Other services include an email box, and links from a customer's Energy Tracker information and graphs to energy efficient tips and ideas. Additional information, functionality and services are frequently added or upgraded, based on customer input.

### ***Residential Low Income Programs, Schedules E201/G203 and E209/G209***

Description: PSE provides funding of cost-effective home weatherization measures for low-income gas and electric heat customers. Funds are used for single-family, multifamily, and mobile home residences.

Program participation takes place through referrals from low-income and crisis service agencies. PSE customers who are having difficulty paying heating bills are also referred to the appropriate serving agency when they apply for energy bill payment assistance. Income qualification for the low-income weatherization program takes place at the local weatherization agency or other designated agency. Local agencies assume responsibility for getting permission from rental property owners to install weatherization measures. The elderly, disabled, and households with very young children receive priority in scheduling of the weatherization work. In addition to the structure audit and measures installation, agencies might provide energy use education to participants.

Recap: Work is continuing with the Washington State Department of Community Trade & Economic Development (CTED) to improve program job/measure reporting and tracking. Planning is underway with CTED on details of the 2004 electric program evaluation.

### ***Efficient Gas Water Heater Program, Schedule G201***

Description: Gas water heater rebates for efficient tanks are promoted to customers in bill inserts, the *Energy Wise* Newsletter, referrals from other PSE departments, energy efficiency brochures and handouts, and a network of contractors, builders, and retailers. Customers may obtain rebate forms by calling the EEIS Hotline (1-800-562-1482) or at [www.pse.com](http://www.pse.com). Planned promotional efforts in 2004 are coordinated with related programs such as Energy Star Efficient Gas Furnaces.

Recap: A new efficiency standard for this program was adopted in January. PSE had expected numbers to drop with the increase requirement. However, numbers have been steady and some volume builders have stepped up to the 0.62 tanks.

### ***Energy Education, Schedules E202/G207***

Description: Powerful Choices, formerly known as In Concert with the Environment, is a 4-day school program that empowers Washington State's secondary students with the ability to make informed choices regarding the use of natural resources. This program fills a need for environmental education in Washington State with no cost to schools.

Powerful Choices also helps students in reaching Washington's learning standards by aligning the curriculum with Washington State's Essential Academic Learning Requirements (EALRS). Students participate in a variety of activities focusing on energy, water, solid waste, and air quality.

Recap: Teacher and partner feedback to the new curriculum has been overwhelmingly positive.

## ***Residential Energy Efficient Lighting, Schedule E214 & C&RD***

### Retail Incentive

Residential customers receive incentive coupons through direct mail or bill inserts. With the rebate, participating retailers and lighting showrooms (approximately 350 retail stores) deduct \$3 from the cost of an Energy Star CF lamp or \$10 from the fixture price at the time of purchase.

### New Construction/Remodeling

Builders receive rebates on the installation of CF fixtures in new residential applications. PSE works with builders to identify high-use lighting areas in homes that would benefit from the installation of three dedicated CF fixtures.

### Cross Promotional/WEB Incentive

CF rebates will be offered as incentive for customers to participate in other programs such as PSE's online energy-use analysis tools. Customers use the tools to learn about energy efficient products, determine the relative energy efficiency of their homes, identify how much appliances cost to operate, and evaluate which efficiency solutions to install in their homes. Once customers register and complete an online home analysis or view their energy consumption using the Energy View graph, they can receive the CF rebate through the retail program or purchase a bulb online.

Recap: Promotions with Bartell's, Fred Meyer, Home Depot and Costco have put the program ahead of target savings goal. Funding has been shifted to C&RD.

## ***Energy Star Efficient Gas Furnace Program, Schedule G214***

Description: Beginning in September 2002, PSE launched a \$150 rebate for the purchase of a Energy Star 90% natural gas furnace in residential single family homes. This rebate for energy efficient furnaces is offered to all residential homeowners and new construction builders in PSE's natural gas service area.

Recap: Program results are trailing targets. PSE is planning to pick up the numbers through the new construction market and through special promotions in the fall. A large project is underway at Fort Lewis that could contribute 700 furnaces to the program.

## ***Energy Efficient Manufactured Homes - C&RD & G213***

Description: This program targets buyers of new HUD-code gas-heated manufactured homes. With a \$150 rebate to the buyers of qualifying NC/ES manufactured homes in the PSE service area. Participants provide a completed PSE rebate form, a photocopy of the NC/ES certificate that comes with the home, and a photocopy of the purchase agreement. Participants also provide a current PSE gas service account number to prove established PSE service to the site of the manufactured home. Upon receipt of qualifying documentation, PSE pays the rebate. PSE uses C&RD funding for electric program costs. The gas program is operated under gas schedule 213.

Recap: Program results are steady but below targets and reflect an overall weakness in the manufactured home sales market.

### ***Commercial-Industrial Retrofit, Schedules E250/G205***

**Description:** PSE works with commercial and industrial customers to review energy consumption at the customer's facility, and to assess cost-effective energy savings opportunities from equipment, building shell, industrial process, or O&M improvements. These services are provided on the customer's behalf and, where specified by the customer, will be developed in conjunction with design engineers, contractors, and/or vendors. PSE will review third-party savings estimates and analyses. Where the project meets PSE cost-effectiveness funding criteria, PSE will provide grants toward energy savings projects. PSE works with the customer to make sure financial decision makers at the customer's facility are aware of the cost-savings opportunities, including review of energy saving projections that can help obtain favorable financing rates. Upon notice of installation/implementation, PSE will verify the project as complete and operational and payment will be issued.

**Recap:** Completed projects have savings that about meet expectations, however projects that are currently in-progress have less savings than needed to meet the savings targets. Two additional Energy Management Engineers have been hired to supplement the existing staff and additional outreach efforts and a Grant Bonus have been initiated.

### ***Commercial-Industrial New Construction, Schedule E251/G251***

**Description:** PSE works with designers and developers of new C/I facilities, or major remodels, to propose cost-effective energy efficient upgrades that exceed energy codes by 10% or standard practice in industrial facilities. Two paths may be followed to qualify for assistance and/or funding for energy efficiency measures. The first path is a prescriptive measure approach, similar to meeting code using the prescriptive path. PSE recommends and reviews measures beyond what is included in the proposed design. Where the project proposes savings 10% beyond the applicable local Energy Code, PSE provides grant funding.

The second path is similar to meeting the code using a performance path. PSE will work with designers to incorporate measures that produce 10% overall savings beyond the applicable local energy code. Given the time frame of new construction planning to completion, these projects may not be complete in the first year.

All C/I customers are eligible, although larger projects tend to be more cost effective. Customers provide PSE with project costs and estimated savings, and assume full responsibility for selecting and contracting with third-party service providers. Projects must be approved for funding prior to installation/implementation to be eligible.

**Recap:** The improving economy has provided many new projects – more than enough to meet targets. The concern is now whether or not they will actually be built or be completed before the end of the tariff period.



### ***Resource Conservation Manager, Schedules E253/G208***

Description: PSE offers Resource Conservation Manager Services (RCM) to any school district, public-sector government agency, and commercial or industrial (C/I) customer, with a focus on larger customers with multiple facilities. An RCM customer employs or contracts with someone who has designated resource management responsibilities, including accounting for resource consumption and savings.

PSE assists in designing and implementing an RCM program. Salary guarantees are available for RCMs, and training opportunities are available for RCMs and corollary staff such as custodial and maintenance personnel.

In some cases, PSE provides a grant to partially fund a start-up RCM position, provided there is a mutual agreement that if the program generates dollar savings, funding by the customer will continue after "start-up" funding support terminates.

Depending on individual customer needs, PSE may provide additional services or assistance, including resource policy guidelines; a resource accounting system; PSE billing data; informational materials; and a forum for resource conservation managers to exchange information, ideas, and techniques for controlling utility costs. Any grants for retrofits are coordinated through PSE's C/I retrofit or new construction programs.

Recap: Savings for this program are typically reported late in the calendar year. An additional FTE to support the program has been added.

### ***Northwest Energy Efficiency Alliance, Schedule E254***

Description: Northwest Energy Efficiency Alliance's (NEEA) market transformation initiatives will increase the availability and consumer acceptance of energy-efficient technologies and practices. As a partner with NEEA, PSE contributes funding for regional programs, actively participates on the NEEA Board of Directors, and supports various related initiatives within the PSE service area. PSE is working with NEEA on market research specifically to establish baseline market practices for commercial buildings, participates in work that involves PSE customers, co-funds projects to gain enhanced services for customers, and is closely involved in the development and implementation of NEEA initiatives.

Detailed information on NEEA history, structure, funding, projects, reports, press-releases, proposals and more is available at NEEA's web site at [www.nwalliance.org](http://www.nwalliance.org).

Recap: Significant work is underway in cooperation with NEEA and other member utilities to more accurately attribute savings for NEEA activities to utility service territories. PSE is participating in home voltage regulation portion of the Alliance conservation voltage regulation project.

### ***Small Business Energy Efficiency, Schedule E255/G255***

Description: The program offers a variety of fixed-incentives that streamline the delivery of energy-saving measures for a variety of small usage commercial businesses and building types. Eligibility is limited to Schedule 24 and Schedule 8 electric customers. Rebates for small businesses cover efficient incandescent and fluorescent lighting conversions and lighting.

Recap: This program continues to accelerate with contractors developing creative ways to ways to cost-effectively serve this market. Savings are currently projected at about twice the target.

**LED Traffic Lights, Schedule E257**

Description: The program educates public-sector customers with traffic control authority (cities, counties, and DOT's) on the benefits of installing red and green LED traffic signals. PSE provides an LED informational packet along with a rebate application by mail or in person. Customers must receive electric service from PSE to qualify for the rebates, and customers with unmetered accounts must document all connected load at the intersection.

Recap: The program is well ahead of schedule.

**Large Power User, Self Directed, Schedule E258**

Description: This program provides an Energy Efficiency Project Request for Proposal (RFP) to C/I customers receiving high-voltage electrical service under Schedules 46, 49, or 449. The RFP offers incentives for new energy efficiency projects conceived, developed, and implemented by customers for their facilities. Customers submit a project application form with supporting documents for PSE review and approval. Customer proposals will be evaluated by PSE engineering staff for cost-effectiveness, and for energy code and tariff compliance. The customer then signs a standard PSE Conservation Grant Agreement, defining the total project cost and PSE incentive amount, prior to installation of project measures. All projects will be field-verified by PSE as completed and operating before the grant payment is made.

Recap: More than half of the funds are not allocated at this point, and the "open period" where funds are released by an RFP process begins at the end of August. There is still high confidence that the savings targets will be hit.

**Commercial Rebates (including LowFlow Sprayhead), Schedules E258/G258)**

Description: PSE offers fixed rebates for select, commonly applied measures to commercial customers. Rebate measures are those with energy-savings that can reasonably be standardized over a wide variety of applications, and that have competitive market pricing to ensure cost-effectiveness. The current list (effective January 2004) of eligible Commercial Rebates is maintained by the Company and made available upon request. Rebate amounts are updated as market conditions change.

Recap: A consulting firm has been assessing the current markets for each of the rebate measures and developing an implementation guide. The Rebate Program Manager has been hired and is consolidating all the measures/programs, and implementing the consultant's recommendations. Dishwasher sprayhead installations are producing the gas savings anticipated.

## **PILOT PROGRAMS**

### **Targeted Fuel Switching Pilot, Schedule E212**

Description: This pilot program was designed to test customer decision-factors for converting from electric to natural gas space and water heating. The program offered two levels of incentives and measured customer response. Offers were mailed to over 1800 customers in three selected geographic areas.

Recap: The 2004 budget estimate of \$50,000 was to cover evaluation of this pilot program. However, in late 2003, it became clear that not all new gas meters would be set before the end of the year and that some rebates would extend into 2004. The additional program costs will be \$100,000 in 2004 with associated savings.

### **Residential Duct Systems, Schedules E203**

Description: This program targets residential customers living in manufactured (mobile) homes with central forced air electric heating systems. Key stakeholders: Homeowners, duct sealing specialists contractors, Climate Crafters (non-profit).

Recap: PSE will prepare and release an RFP during 3rd quarter 2004 for acquisition of 800 electric mobile home duct sealing jobs during 2004-5.

### **Commercial/Industrial Boiler Tune-up Pilot, Schedule G259**

Description: It has been the experience of PSE Energy Management Engineers, City of Seattle boiler inspectors and mechanical contractors that commercial customers seldom have the air to fuel ratios tuned on their boilers for efficient operation. A boiler that has not been tuned for many years can use as much as 20% more gas fuel. This pilot program will consist of working with mechanical contractors to design a pilot that provides sufficient incentive to persuade customers to have their boilers tuned up for the first time, so that they can see the resulting energy savings on their bills.

All non-transportation PSE gas C/I customers with gas boilers that can be tuned are eligible. Since the last report, PSE has expanded eligibility to interruptible gas customers. Funding is limited to one time per boiler.

Recap: Facilities that do not utilize outside firms to service their boilers, have been participating because of three workshops that were held to train boiler technicians to perform tune-ups. Also the consulting firm has been assessing the existing contractors and recommending program improvements.

### **Energy Star New Construction Pilot, Schedules E249/G249**

Description: The Northwest Energy Efficiency Alliance has approved \$4.2 million in funding and a 2.5 year commitment to implement Energy Star Homes Northwest. NEEA's goal is to increase regional market share of Energy Star rated homes to 20% within 5 years.

The program is a package of energy savings measures installed in single family new construction homes. To achieve the Energy Star Northwest rating a new homes will include:

- Shell and insulation beyond current code
- High efficiency heat pumps and gas furnaces
- High efficiency gas and electric water heaters
- Heating system commissioning (blower door/duct testing)
- Energy Star windows
- 50% of all lighting sockets filled with Energy Star CFLs or CFL Fixtures
- Energy Star Dishwasher

Recap: PSE has been working with NEEA and WSU to get the infrastructure in place. NEEA is currently finalizing Energy Star new construction specifications and inspection procedures. Builder participation to date has been slow. NEEA is developing marketing materials to help reach the builder market.

### **Multi-Family Lighting Retrofit Pilot, Schedule E249**

Description: Achieve cost effective energy savings by promoting installation of lighting efficiency measures in apartments and condominium buildings. These measures are offered for dwelling units for which the tenants or owners are the individual PSE electric account holders. Promote sustainable use of Energy Star rated compact fluorescent fixtures.

To assist customer (participating building owner or manager) with appropriate Energy Star fixture selection and locations, information will be provided in PSE lighting materials, in retail stores and showrooms, as well as provided by the installing contractor. PSE Hotline advisors will also help identify areas in the building/unit where installation of energy efficient fixtures would be most beneficial to the customer.

This pilot will be coordinated with Puget Sound Energy's small business lighting rebates and residential energy efficient lamp program to provide comprehensive lighting solutions for building owners and managers.

Recap: For efficiency and consistency with the residential lighting program, this pilot was added to the current contractor ECOS's scope of work. One project with the Skagit Housing Authority is currently underway.

### **Refrigerator Decommissioning Pilot, Schedule E249**

Description: Encourage PSE electric customers to remove second refrigerators operating in their homes.

Current planning includes the following elements:

- Offer rebates to single family residential customers who certify that they have an existing second refrigerator (of more than 10 cubic feet) and who remove this refrigerator from service by contacting with an approved decommissioning contractor.
- Cash rebates payable to the participating customer by third party contract service
- PSE single family electric service customers
- Key stakeholders include: third party program service contractor, EPA certified appliance decommissioning contractor, and appliance dealers

**Recap**: An RFP has been issued. Contractor award is scheduled for August.

### **Residential Heat Pump Maintenance Pilot, Schedule E249**

Description: Offer a rebate to PSE single family residential customers who use heat pumps for home heating and cooling. The rebate will be paid upon completion of an advanced heat pump diagnostic protocol and minor heat pump service and supply duct leakage-screening test. A certified heating contractor using the Check Me® protocol and reporting procedure would perform the diagnostic.

Supply duct screening results will be used to inform customers with apparent high leakage values and above average electric heating usage, of the merits of seeking more precise duct testing and sealing service from a certified duct leakage contractor (separate rebate for completed duct sealing to be offered by PSE).

Eligibility to be limited to targeted single family residential customers heating their homes primarily with heat pumps. Tenants eligible for this rebate with owner permission perform the service.

Key stakeholders include residential HVAC contractors and suppliers, third party technical certification, training and reporting contractors. Duct leakage assessment will yield some number of duct sealing jobs for certified duct sealing (weatherization contractors).

**Recap**: One contractor is trained and in the field selling the services. Proctor Engineering is providing analytical services through their CheckMe! system.

### **Multi-Family Fuel Choice Pilot, Schedule E249**

**Description:** By analyzing market segmentation findings, potential energy savings and barriers to natural gas expansion in the multi-family segment are expected to be discovered. The Company hopes that a program design will be created to optimize fuel choice selection to natural gas and better identify potential energy savings.

Phase 1: The first phase of the pilot, primarily the first and second quarter of 2004 will primarily consist of fact finding and pilot design. We will identify current practices and costs, confirm gas equipment options and determine the levels and types of incentives needed to encourage changing to natural gas.

Phase 2: Phase two, beginning in approximately July 2004, will be to implement and test the pilot measures. Based on results and early feedback, design features can be reassessed and changed as needed.

**Recap:** Dupre-Scott has been hired to conduct market research and segmentation.

### **Premium Service HVAC Maint. Pilot, Schedules E249/G249**

**Description:** Four prominent HVAC contractors serving the Puget Sound region expressed interest in developing the premium HVAC service concept; they have agreed to participate in this pilot. They have undergone extensive training in maintenance techniques, include use of special measurement and diagnostic equipment. Participating contractors recruit PSE customers with whom they already have HVAC maintenance contract in place. Customers agree to PSE pilot guidelines which add a "premium" level of service to the existing contract, focusing on energy savings as well as other maintenance needs. Under this program, three rebate incentive levels have been established for the premium HVAC service depending on the level of service required at the site. Customers agree to continue the maint. contract for three to five years.

Contractors are trained and work is closely monitored. PSE uses ECOTOPE staff to support the rooftop diagnostics. Pre and post energy use is being tracked on a year-round basis. To date, PSE premium HVAC maintenance service pilot is successfully achieving 10 to 15 percent energy savings for pilot participants.

The pilot is being refined by working with contractors to further define savings, costs and PSE incentive levels.

**Recap:** Rebate levels and measure changes were made in collaboration with the contractors, and new contractor was added to increase results. Participating contractors remain committed, and although the program is still on track to hit savings targets because larger than expected units are being serviced, new sign-ups are below expectations.

## Gas Single-Family Weatherization Pilot, Schedule G249

**Description:** Offer certain weatherization measures for gas-heated single family homes. These measures would be targeted to existing gas heated homes typically constructed between the 1950's and mid 1970's that lack floor insulation (above unheated crawl space), heating supply duct insulation (located in unheated spaces of the home) and have inadequate ceiling insulation. Homes may lack one or more of these measures.

- PSE would offer fixed, per measure unit rebates to qualifying residential customers who have installed under floor, heating duct or attic insulation using the services of a trained energy services contractor
- The specific measure rebate amounts are under development.
- Eligible customers are single family customers using natural gas for space heat. Tenants may participate in the rebate with written owner permission.
- PSE will need to carefully develop the program and contractor arrangements to avoid problems with moisture, mold, lead paint, and gas appliance backdrafting.
- PSE is planning to seek a small number of qualified contractors to participate. PSE will prepare an RFP to solicit written responses from weatherization services contractors to conduct the installation of measures on behalf of PSE customers.

**Recap:** PSE conducted contractor interviews and selected Energy Specialists of Washington to perform the pilot. PSE is developing the final incentive levels to test customer response. PSE is also working with a bank to offer a loan as part of the pilot.

## Residential Gas Furnace Maintenance Pilot, Schedule G212

**Description:** Demonstrate the energy savings and market acceptance of gas furnace maintenance service that is directed by an advanced diagnostic protocol. The pilot would also demonstrate the efficacy of adding a heating supply duct leakage screening performed by the HVAC contractor at the time of the gas furnace maintenance service.

- Offer a rebate to PSE single family residential gas service customers using ducted gas furnaces for home heating. The rebate would be paid upon completion of an advanced gas furnace diagnostic protocol and minor furnace service and supply duct leakage-screening test. A certified heating contractor/PSE technician using the advanced protocol and reporting procedure would perform the diagnostic.
- Supply duct screening results would be used by PSE to inform customer with apparent high (crude) leakage values and above average gas heating usage (based on bill history), of the merits of seeking more precise duct testing and sealing service from a certified duct leakage contractor. A separate rebate for completed duct sealing to be offered by PSE.
- Up to a \$50 rebate to customer per completed/reported furnace diagnostic test and service. Payments processed by third party contract service.
- Single family residential customers heating their homes primarily with gas furnaces. Tenants eligible for this rebate with owner permission perform the service.
- Key stakeholders include residential HVAC contractors/ PSE Checkup Service, third party technical certification, training and reporting contractor(s), diagnostic equipment suppliers. Duct leakage assessment will also yield some number of duct sealing jobs for certified duct sealing (weatherization contractors).

**Recap:** Initial program results have been disappointing. The before and after analyses on furnaces to date have shown little savings. PSE is continuing the pilot to get a reasonable sample size before performing the complete program evaluation.

***Local Infrastructure, Market Transformation & Conservation Potential  
Market Research, Schedule E270/G270***

PSE participates with or utilizes the services of many organizations to support the local delivery, management, and promotion of a broad range of energy efficiency programs. Financial support for these organizations is provided through Schedule 270, with spending capped at 5% of overall program budgets. New as of September 2002 these schedules include expenditures for an assessment of conservation market potential in PSE's service area.

***Net Metering, Schedule E150***

Schedule 150, Net Metering for Renewable Energy Services, became effective February 11, 1999. Subsequently, Schedule 150 was revised on June 8, 2000 in response to legislative action<sup>1</sup>, which modified certain aspects of the net metering program. As revised, the schedule applies to customers who operate fuel cells or hydroelectric, solar or wind generators of no more than 50 kW.<sup>2</sup> Service under this schedule is limited to a total of 4.5 MW of cumulative nameplate generating capacity, of which no less than 2.25 MW of cumulative nameplate generating capacity shall be attributable to net metering systems that use either solar, wind, or hydroelectric power as its fuel. Customer generation can be used to offset part or all of the customer-generator's electricity use under Schedules 7, 24, 25 or 29 of Electric Tariff G.

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<sup>1</sup> On March 27, 2000, Engrossed House Bill 2334 relating to the definition of net metering systems and amending RCW 80.60.010, 80.60.020 and 80.60.040 was signed into law. The revised law became effective June 8, 2000.

<sup>2</sup> Revisions to Schedule 150, including increasing the maximum generator capacity to 50kW became effective May 13, 2004.



**Exhibit 1: Tariffed Program Results, January-June 2004**

Elec Sch #	Gas Sch #	Service	kWh Savings	Therm Savings	Electric Costs	Gas Costs	Total Costs
200	206	Res. Energy Effic. Information	-	-	\$ 189,557	\$ 92,945	\$ 282,502
260	260	Com'l Energy Effic. Information	-	-	\$ 47,344	\$ 25,859	\$ 73,203
201	203	Low-Income Retrofit	843,200	18,850	\$ 541,055	\$ 192,979	\$ 734,034
na	201	Efficient Gas Water Heater	-	84,228	\$ -	\$ 93,177	\$ 93,177
202	207	Energy Education	798,213	48,347	\$ 191,100	\$ 107,879	\$ 298,979
214	na	Res. Energy Effic. Lighting Rebate	23,923,663	-	\$ 1,683,004		\$ 1,683,004
na	214	Energy Efficient Gas Furnace	-	82,948	\$ -	\$ 194,193	\$ 194,193
na	213	Energy Effic. Manufactured Homes	-	954	\$ -	\$ 5,595	\$ 5,595
250	205	C/I Retrofit	12,148,661	114,666	\$ 2,645,510	\$ 263,598	\$ 2,909,108
255	na	Vending Miser	18,000	-	\$ 344		\$ 344
251	251	C/I New Construction	276,973	42,265	\$ 26,697	\$ 38,002	\$ 64,699
253	208	Resource Conservation Manager	397,299	108,062	\$ 88,222	\$ 33,498	\$ 121,720
254	na	NW Energy Efficiency Alliance	-	-	\$ 1,791		\$ 1,791
255	na	Small Business Lighting Rebate	2,725,434	-	\$ 564,706		\$ 564,706
257	na	LED Traffic Lights	738,291	-	\$ 56,530		\$ 56,530
258	na	Large Power User/Self Directed	2,574,340	-	\$ 294,439		\$ 294,439
262	262	Commercial Rebates	-	-	\$ 39,729	\$ 7,847	\$ 47,576
na	262	Low Flow Spray Head Pilot-Gas	-	314,279		\$ 236,023	\$ 236,023
212	na	Targeted Fuel Switching Pilot	349,515	-	\$ 85,606		\$ 85,606
203	na	Mobile Home Duct Systems Pilot	95,128	-	\$ 38,841		\$ 38,841
na	259	Gas Boiler Tune-up Pilot	-	82,369	\$ -	\$ 14,002	\$ 14,002
249	249	Energy Star New Const. Pilot	-	-	\$ 13,704	\$ 9,873	\$ 23,577
249	na	Multi-Family Lighting Retrofit Pilot	-	-	\$ 25,834		\$ 25,834
249	na	Refrigerator Decommissioning Pilot	-	-	\$ 7,039		\$ 7,039
249	na	Residential Heat Pump Maint. Pilot	-	-	\$ 5,558		\$ 5,558
249	na	Multi-Family Fuel Choice Pilot	-	-	\$ 43,003		\$ 43,003
249	249	Premium Svc HVAC Maintenance Pilot	342,444	12,877	\$ 47,455	\$ 15,788	\$ 63,243
na	249	Gas Single Family Weatheriz. Pilot	-	-	\$ -	\$ 18,656	\$ 18,656
na	212	Residential Furnace Maint. Pilot	-	650	\$ -	\$ 37,817	\$ 37,817
261	261	Energy Efficient Technology Eval.	-	-	\$ 3,436	\$ 232	\$ 3,668
270	270	Local Infrastructure&Mkt Trans	-	-	\$ 23,671		\$ 23,671
270	270	Conservation Market Research	-	-	\$ 55,346	\$ 46,753	\$ 102,099
150	na	Net Metering	-	-	\$ 10,753	\$ -	\$ 10,753
na	na	Electric Conservation Support	-	-	\$ 13,448		\$ 13,448
na	na	Electric Efficiency RFP	-	-	\$ 42,732		\$ 42,732
<b>Total</b>			<b>45,231,161</b>	<b>910,495</b>	<b>\$ 6,786,454</b>	<b>\$ 1,434,716</b>	<b>\$ 8,221,170</b>