

February 15, 2005

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

Via email & regular mail

RE:

Docket: UE-970686

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 2005. This submission contains a progress report on the results of the 2005 DSM programs through December 31, 2005 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) 456-2797 if there are any questions.

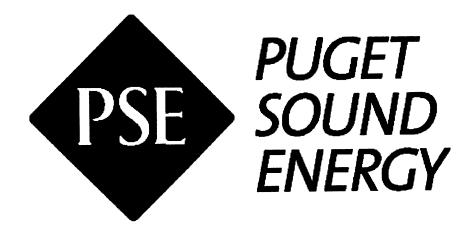
Sincerely,

Karl Karzmar

Director, Regulatory Relations

Enclosure

cc: Simon J. Ffitch



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

February 15, 2005

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Executive Summary

This annual report of Puget Sound Energy's (PSE's) current Energy Efficiency Services (EES) associated with the electric Rider and gas Tracker, covers the period January, 2004 through December, 2004. During 2004, EES programs under the electric Rider and gas Tracker first year savings totaled 138,288 MWh (15.79 aMW) at a cost of \$20,869,462 and 3,189,819 therms at a cost of \$3,781,810. In addition, under BPA's Conservation and Renewables Discount (C&RD) program, PSE saved an additional 34,927 MWh (3.99 aMW) in first year savings at a cost of \$4,126,802 (does not include cost of renewables). Detailed Rider/Tracker program numbers are available in Exhibit 1 at the end of this report.

The year 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 December in comparison to two-year budget and savings goals for electric and gas energy efficiency programs (including BPA C&RD programs). Based on jobs in-progress and current program status, current projections are that PSE will achieve 100% of the two-year savings goals on or under budgets.

Tariff + C&RD EES	2004	2 YEAR	'04 vs '04/05		
PROGRAM INFO	<u>ACTUALS</u>	BDGT./GOAL	<u>% Total</u>		
ELECTRIC Costs	\$24,996,264	\$52,218,000	47.9%		
MWH Savings	173,215	343,080	50.5%		
GAS Costs*	\$3,781,810	\$9,106,000	41.5%		
THERM Savings	3,189,819	5,013,480	63.6%		

Creation of electric and gas conservation potential and the integration of resulting supply curves into least cost planning models is on-going for 2006/07 planning.

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. 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) 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 enewsletter 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" enewsletter 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

<u>Description</u>: 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: Developed a new and improved PSE tracking & reporting database to enhance reporting and true-ups of agency data. Reviewing cost effectiveness energy savings in 2005. Program evaluation planning underway and will be continued in 2005.

Efficient Gas Water Heater Program, Schedule G201

<u>Description</u>: 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. Planned promotional efforts in 2004 are coordinated with related programs such as Energy Star Efficient Gas Furnaces.

Recap: This program has surpassed its goal and there is continued awareness of the higher efficiency tanks.

Energy Education, Schedules E202/G207

<u>Description</u>: 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.

<u>Recap</u>: The program continues to evolve as teacher and partner feedback enhance the curriculum. Teacher and student satisfaction during Fall 2004 has been extremely high.

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: The \$2 instant rebate and higher incentives for specialty CFLs will continue in 2005. Evaluation of the last two years of the program will be used to develop an implementation plan for 2006 and 2007. Anticipate operating the program under the accepted EES RFP proposal.

Energy Star Efficient Gas Furnace Program, Schedule G214

<u>Description</u>: 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.

<u>Recap</u>: First cost continues to be an obstacle for high efficiency gas furnaces. PSE continues efforts through the new construction market and through special promotions. We are expecting more builder participation through those efforts.

Energy Efficient Manufactured Homes - C&RD & G213

<u>Description</u>: 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: Manufactured housing sales have been competing with low cost mortgages for single family homes, and there is high turnover in the sales force. These factors have made it difficult to sustain consistent promotion efforts on the part of dealers.

Commercial-Industrial Retrofit, Schedules E250/G205

<u>Description</u>: 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: On the Electric side, the bonus grant promotion produced projects that meet the 2004 program savings targets and generated many projects for 2005.

On the Gas side, the bonus grant promotion produced many more projects, however, the longer lead time for boilers limited savings achieved in 2004. The continuing increase in awareness of gas savings measures is optimistic.

Commercial-Industrial New Construction, Schedule E251/G251

<u>Description</u>: 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.

<u>Recap</u>: On the Electric side, the pick-up in new construction activity drove the completion of more projects than expected.

On the Gas side, we have completed projects that exceed the savings target for this program and continue to work on many more projects that will add to the total savings achieved.

Resource Conservation Manager, Schedules E253/G208

<u>Description</u>: 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: Program improvements have increased the number of organizations participating and improved each facility results.

Northwest Energy Efficiency Alliance, Schedule E254

<u>Description</u>: 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.

Recap: The 13,671 MWh reported for 2004 reflects only savings reported by NEEA for the first two quarters of the year, and we are confident savings will be documented for 2004-2005 that will meet the targeted 29,000 MWh. A portion of an anticipated dues credit was used to pay a portion of the 2004 dues.

Small Business Energy Efficiency, Schedule E255/G255

<u>Description</u>: 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: Contractors continue to find methods to use this program to sell lighting retrofits to this tough market, at a profit.

LED Traffic Lights, Schedule E257

<u>Description</u>: 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 with good participation from cities.

Large Power User, Self Directed, Schedule E258

<u>Description</u>: 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: The entire \$750 K available in the competitive phase was awarded to participating customers. There is still high confidence that the savings targets will be hit.

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

<u>Description</u>: 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: On the Electric side – Dishwasher sprayheads in facilities with electric water heating and a couple of large VSD rebates drove these results. Activity in high efficiency washing machine rebates is also picking up remarkably quickly.

On the Gas side - Dishwasher sprayhead installations are producing the gas savings and the program is expanding into Snohomish County, Tacoma and the Olympia area. The calculated per unit savings is higher than anticipated based on a new CEE report and local metered data.

PILOT PROGRAMS

Targeted Fuel Switching Pilot, Schedule E212

<u>Description</u>: 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: All field work is complete with a total of 70 participants. Billing analysis to occur in spring 2005 after complete winter season.

Mobile Home Duct Systems, Schedules E203

<u>Description</u>: 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: Contractors came on board as of October 2004. We are now on target to achieve 2 year savings goal by the end of 2005.

Commercial/Industrial Boiler Tune-up Pilot, Schedule G259

<u>Description</u>: 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.

<u>Recap</u>: Boiler training classes have raised awareness of this program, however, contractors are not marketing the program as anticipated. Significant changes to the program are under consideration.

Energy Star New Construction Pilot, Schedules E249/G249

<u>Description</u>: 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

<u>Recap</u>: More than 25 builders have signed builder agreements. Next steps will be to identify home sites and savings estimates in PSE's service area; focus on supporting builders needs in the area of lighting and heating; and develop a process to track and report savings for each certified home. Working with NEEA to refine savings and cost effectiveness estimates for PSE's service area.

Multi-Family Lighting Retrofit Pilot, Schedule E249

<u>Description</u>: 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: This pilot was started up towards the end of 2004. Several projects are currently underway, including projects with Housing Authorities.

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Refrigerator Decommissioning Pilot, Schedule E249

<u>Description</u>: 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

<u>Recap</u>: The pilot kicked off in mid-October with direct mailers and print ads directed at households in Bellingham and Skagit Valley. Units will be tracked beginning in January, with the pilot anticipated to be completed by March. Evaluation planned for late spring.

Residential Heat Pump Maintenance Pilot, Schedule E249

<u>Description</u>: 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: PSE anticipates this pilot will be replaced by early adoption of a proposal accepted in response to the EES RFP. The proposal will include enhancements not presently part of the original pilot plan, such as limited incentive payments to participating contractors installing replacement Energy Star - rated heat pumps. Contractor is in the process of preparing a final proposal and cost estimate for this project. A revised WUTC tariff filing is anticipated later this spring.

Multi-Family Fuel Choice Pilot, Schedule E249

<u>Description</u>: 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: The pilot is progressing well. The first part of February 2005, we will have our first draft which addresses our findings on Market forces, Building Envelope and Structural Constraints, Space & Water Heating Options, Individual Metering Options and Fuel Line Options. In addition, we will have a preliminary inventory of existing and proposed MF structures and their characteristics. Early April we will be evaluating and implementing programs to break down market barriers.

Premium Service HVAC Maint. Pilot, Schedules E249/G249

<u>Description</u>: 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: Larger units than expected produced more energy savings per unit than the plan. The program will be expanded by adding up to 6 more contractors during 2005 and allowing contractors to sell to new customer facilities.

Gas Single-Family Weatherization Pilot, Schedule G249

<u>Description</u>: 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: Energy Specialists started installing measures in October. There were 6 completed jobs in 2004. Working on more effective marketing methods to increase participation in 2005.

Residential Gas Furnace Maintenance Pilot, Schedule G212

<u>Description</u>: 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).

<u>Recap</u>: PSE is revamping the pilot for a small number of customers during the first part of 2005 to shift the type of furnace that best yields the savings. Conclusion to this pilot is expected during the first half of 2005.

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 action¹, 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 that 50 kW.² 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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¹ 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.

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

Exhibit 1: Tariffed Program Results, January-December 2004

	CXI	nibit 1: Tariffed Progra	III Kesui	is, Jain	Ja —	y-Dec			_	
Elec Sch #	Gas Sch#	Service	kWh Savings	Therm Savings		Electric Costs	G	as Costs	T	otal Costs
200	206	Res. Energy Effic. Information	-	-	\$	443,170	\$	212,410	\$	655,580
260	260	Com'l Energy Effic. Information	-	-	\$	90,706	\$	51,400	\$	142,106
201	203	Low-Income Retrofit	1,169,600	53,070	\$	894,357	\$	233,621	\$	1,127,978
na	201	Efficient Gas Water Heater		165,679	\$	-	\$	174,631	\$	174,631
202	207	Energy Education	1,043,041	61,724	\$	284,476	\$	164,974	\$	449,450
214	na	Res. Energy Effic. Lighting Rebate	23,923,663	-	\$	1,317,171	\$	-	\$	1,317,171
na	214	Energy Efficient Gas Furnace		228,997	\$	-	\$	471,679	\$	471,679
na	213	Energy Effic. Manufacted Homes		2,332	\$	-	\$	10,547	\$	10,547
250	205	C/I Retrofit	65,727,163	496,763	\$	12,923,409	\$	1,206,085	\$	14,129,494
255	na	Vending Miser	20,000	-	\$	344	\$	-	\$	344
251	251	C/I New Construction	4,787,644	233,076	\$	548,603	\$	147,572	\$	696,175
253	208	Resource Conservation Manager	6,881,776	439,730	\$	357,026	\$	180,801	\$	537,827
254	na	NW Energy Efficiency Alliance	13,670,604	-	\$	518,256	\$	-	\$	518,256
255	na	Small Business Lighting Rebate	7,092,563	-	\$	1,431,162	\$	-	\$	1,431,162
257	na	LED Traffic Lights	1,070,165	-	\$	76,617	\$	-	\$	76,617
258	na	Large Power User/Self Directed	8,158,990	-	\$	603,881	\$	-	\$	603,881
262	262	Commercial Rebates	1,851,713	420	\$	212,042	\$	51,371	\$	263,413
262	262	Low Flow Spray Head Pilot	815,965	1,364,968	\$	-	\$	337,028	\$	337,028
212	na	Targeted Fuel Switching Pilot	394,316		\$	96,300	\$	-	\$	96,300
203	na	Mobile Home Duct Systems Pilot	202,664		\$	106,004	\$	-	\$	106,004
na	259	Gas Boiler Tune-up Pilot	-	93,615	\$	-	\$	58,640	\$	58,640
249	249	Energy Star New Const. Pilot	-	1,376	\$	42,384	\$	32,399	\$	74,783
249	na	Multi-Family Lighting Retrofit Pilot	-	-	\$	70,968	\$	-	\$	70,968
249	na	Refrigerator Decomissioning Pilot	-	-	\$	83,623	\$	-	\$	83,623
249	na	Residential Heat Pump Maint. Pilot	-	-	\$	23,840	\$	-	\$	23,840
249	na	Multi-Family Fuel Choice Pilot	<u>-</u>	-	\$	118,496	\$	-	5	118,496
249	249	Prem. Svc HVAC Maintenance Pilot	1,478,440	44,443	\$	169,906	\$	69,196	5 5	239,102
na	249	Gas Single Family Weatheriz. Pilot	-	1,376	\$; -	\$	65,844	, ,	65,844
na	212	Residential Furnace Maint. Pilot	-	2,250	\$; -	\$	53,567	7 :	53,567
261	261	Energy Efficient Technology Eval.	-	-	9	6,711	\$	1,390) :	8,101
270	270	Local Infrastructure&Mkt Trans	-	-	\$	63,237	' \$	250)	63,487
270	270	Conservation Market Research	-	-	•	269,341	•	258,40	5	\$ 527,746
150	na	Net Metering	-	-	;	27,048	3 5	-		\$ 27,048
na	na	Electric Conservation Support	-	-	;	20,79	۱ :	-		\$ 20,79
na	na	Electric Efficiency RFP		-	;	69,593	3 ;	<u>-</u>		\$ 69,593
		Total	138,288,307	3,189,819		\$ 20,869,462	2 :	\$ 3,781,81	0	\$ 24,651,272