# **Energy Efficiency Services**

Exhibit 3

2011

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**Program Descriptions** 



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# **General Program Description Notes**

# **Associated Documents**

In addition to the program descriptions in this Exhibit 3, there is a 2011 Annual Conservation Plan Outline and five other Exhibits, which outline the following for each program:

Budget and savings (both gas and electric) order number details	Exhibit 1
Cost Effectiveness Tables	Exhibit 2
List of Measures, Incentives and Eligibility	Exhibit 4
Program evaluation plans	Exhibit 5

# Program Descriptions

Following each program's title is the corresponding Conservation Schedule number. A number preceded by an E indicates that this is an electric Schedule. Similarly, a number preceded by a G indicates that this is a natural gas Schedule. Many conservation programs have the same Conservation Schedule number for both natural gas and electric service.

Conservation Schedules are available for public review at PSE.com. Program descriptions are organized in sequence according to their Schedule number.

# Glossary of Commonly Used Acronyms and Terms

Unless otherwise noted in a specific Conservation Schedule, the following commonlyused terms, used throughout this document have the below noted meanings:

AIA	American Institute of Architect	
ASHRAE	American Society of Heating, Refrigerating, and Air- Conditioning Engineers	
BOMA	Building Owners and Managers Association	
BPA	Bonneville Power Administration	
СНР	Combined Heat & Power	
CMS	Customer Management System	
Cost Element	Also referred to as account numbers. Cost element groups typically include; labor, overhead, employee expenses, miscellaneous expenses, materials, etc.	
CRAG	Conservation Resource Advisory Group	
DDC	Design Development and Construction	
DHW	Domestic Hot Water	
Direct Install Measure	A conservation Measure that is installed by a PSE representative—rather than a PSE Customer—into a qualifying structure.	
ECM	Electronically Commutated Motor	
EES	Energy Efficiency Services, a division of Puget Sound Energy	
HID	High Intensity Discharge (related to lighting)	
HVAC	Heating, Ventilation and Air Conditioning	
kWh	Kilowatt Hour	
NEMA	National Electrical Manufacturers Association	
O&M	Operations and Maintenance	
Order Number	An eight-digit accounting number, used to track expenditures. FERC rules require that expenditures associated with energy conservation begin with a 1823nnnn (where "n" is another number). This is the most detailed view of accounting for a program's expenditures. Within an order number, cost elements account for the specifics of those expenditures, as explained above.	

# Glossary of Acronyms and Terms, continued

TRC	Total Resource Cost
UC	Utility Cost
ULI	Urban Land Institute
USGBC	U.S. Green Building Council
WAMOA	Washington Association of Maintenance and Operations Administrators

# Introduction

This document; Exhibit 3, provides detailed descriptions of the Company's Energy Efficiency Services department conservation programs. This document replaces the Company's Appendix A, which contained the biennial program descriptions. Exhibit 3 is developed in response to the applicable Settlement Terms for Conservation, Docket No. UE-100177 conditions:

0	K(3)(a)(vi)(1)	Marketing
0	K(3)(a)(vi)(2)	Incentives
0	K(5)	Program Details
0	K(7)	Program Design Principles
0	K(8)(b)	Filing of Annual Conservation Plan

and will be filed annually henceforth.

# **Program Description Revisions**

Relative to the Program Descriptions originally filed in the Company's December 2009 Appendix A, it is important to distinguish between program description language revisions in this Exhibit that are intended to enhance clarity and readability, correct previous grammar errors, etc., versus revisions that resulted from programmatic modifications, such as a change in implementation or strategy. Through the use of major revision summary tables and program revision narratives in the 2011 Annual Conservation Plan Outline, readers will be able to readily discern the differences.

# **General Formatting**

All program descriptions within this Exhibit were updated to reflect the most accurate representation of their offerings and services. The program description revisions described herein were initially published in PSE's 2010 Semi-Annual Report on Conservation Accomplishment. Prior to that, PSE's Appendix A was updated in April 2010<sup>1</sup>.

Readers will also notice, when comparing this Exhibit to the 2010 – 2011 biennial Appendix A, that headers and foots have been added. This improvement was made to create consistency among all of the Company's EES compliance reports. Similarly, a relevant cover photo was added and section titles were re-formatted.

<sup>&</sup>lt;sup>1</sup> CRAG members received an email, containing the complete "Mark-up" version of Appendix A, indicating the revised language. That email also included a complete set of the revised sections.

# **Document Contents**

Exhibit 3 contains, for each program:

- An updated description of the service or Customer offering and its strategy
- The target market for the program
- Customer Incentives
- Marketing Plan<sup>2</sup>

Support Activities contain only the description of the service or activity and its strategy.

<sup>&</sup>lt;sup>2</sup> The overarching EES Marketing Plan is contained in the 2011 Annual Conservation Plan outline document, section 4.

# RESIDENTIAL PROGRAM DESCRIPTIONS

# Residential & Commercial Energy Efficiency Information

Schedules E200/G1206 (Residential) & E260/G260 (Commercial/Industrial)<sup>3</sup>

# Purpose

Provide Customers with quality information that will assist them in making cost-effective decisions relative to energy-efficiency investments. Motivate Customers to participate in eligible EES programs and services while simplifying the process to take action. Provide guidance to Customers on how and where to find appropriate solutions, e.g. products, retailers, product vendors, contractors, and installers.

# Description

These services consist of five components that complement each other to provide information for Customers on energy programs and efficiency improvements tailored to their interests and energy-use concerns.

# Energy Advisors

The Energy Advisors research, analyze, resolve and respond to Customer inquiries, issues and requests related to energy efficiency and conservation; and promote and explain energy efficiency and renewable programs and their advantages. They represent PSE in an effort to promote and cross market products and services by presenting and providing educational materials to employees, organizations and community groups. Energy advisors receive training and instruction in departmental procedures and are expected to use good judgment in independently responding to recurring Customer issues and/or complaints. Unique, difficult or unusual Customer service issues are referred to the senior energy advisor. They consult with Customers to help lower bills and educate them regarding energy efficiency and conservation as well as promote PSE energy efficiency and conservation programs and services at community and corporate outreach events such as trade and home shows, fairs, educational workshops and trainings.

Customers have access to speak directly to an Energy Advisor through a toll-free number, **1-800-562-1482**, Monday through Friday, 8am to 5pm.

# Energy Efficiency Brochures

PSE provides brochures and how-to guides on numerous energy efficiency opportunities, including 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. Brochures are also distributed at numerous Customer events, Home shows and trade shows throughout the year. Where required by tariff, brochures are included as bill inserts.

<sup>&</sup>lt;sup>3</sup> As the Residential and Business Information Services deliverables are the same or similar in most cases, the program description for Information Services is presented here, in the Residential section of Exhibit 3 so as to avoid duplication of information in the two sectors.

# 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. "Energy at Home", is 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.

Work is underway to revise the PSE.com website, which will incorporate an interface with PSE's Re-Energize campaign, upon which elaboration is provided in the Mainstreaming Green presentation of this Program Description.

# On-Line Personal/Business Energy Profile

Personal Energy Profile (residential) and Business Energy Profile (small business) 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.

<u>MY PSE Account</u> incorporates easy-to-navigate tabs and menus that a Customer can use to query their billing history and details, an analyzer tool that explains what is included in their bill. An Example of a My PSE Account home page is illustrated in Figure 12. Customers can access energy analysis tools to better understand what changes can be made to reduce energy usage. Below is a sample energy tools page. The Business Energy Profile is available only to online users.

# <u>Events</u>

Energy Efficiency Services sponsors and participates in community, local, and regional events annually. These events include home shows, trade shows, seminars, corporate events and community outreach. By providing unique opportunities for EES staff to interact directly with Customers to discuss a variety of products, programs and services PSE offers and match Customer interests/needs with Energy Efficiency programs.

The event strategy team provides specific criteria for event participation that matches overall business and strategy of the programs supporting EES programs with emphasis on presence, affiliation and relevance. Each event holds a particular value to stakeholders and relates to objectives of PSE EES programs. The Events team has been redesigning and organizing the events management processes in order to improve the Customer experience. The Events strategy team—including representatives from marketing, outreach and programs—assesses event requests, reviewing event opportunities in advance, with a focus on tactical planning for and vetting events.

# Low Income Weatherization

Schedules E201/G203

# Purpose

Assist low-income residential Customers to improve the energy efficiency of single family residences, multifamily structures and manufactured/mobile homes.

# Description

Key stakeholders are low-income gas and electric Customers; county and municipal lowincome weatherization agencies in the PSE service area, Washington State Department of Commerce ("Department of Commerce" or "Commerce"), and participating weatherization contractors and suppliers.

Residential Low Income Weatherization provides funding of many cost-effective home weatherization Measures for low-income Customers receiving gas and/or electric heat from PSE. Funds are used for single-family, multi-family and mobile home residences. Some Measures which do not meet standard cost-effectiveness tests may also be approved.

In addition, this program provides funding for energy-related repairs and energy education. An energy-related repair is a repair that is necessary (1) to install a weatherization Measure properly, (2) to protect the health and/or safety of the occupants, (3) to address an existing problem that weatherization could aggravate or (4) to protect the integrity of the installed Measure. Examples include but are not limited to:

- Repair roof leaks
- Electrical inspection and repairs
- Mold/mildew remediation
- Rodent, insect and pest extermination
- Bath and kitchen ventilation upgrades
- Furnace or water heater repairs or replacement.

Sources of Low Income Weatherization funding include, but are not limited to, Electric Rider, Gas Tracker, Company funds, BPA credits or other federal or state government programs and proceeds from the sale of Renewable Energy Credits as made available in Docket No. UE-070725 ("REC Funding").

For those funds that must meet a cost effectiveness standard, up to 30 percent may be applied to energy-related repairs that are necessary to effect the installation of other cost-effective Measures. The final percentage allocated will be determined according to the overall program cost-effectiveness.

Energy education include those Measures that would help Customers understand how to benefit from Measures installed in their home and to further reduce energy consumption through behavior modification.

# Target Market

Low-income Customers including owners and tenants of single family, multi-family, manufactured or mobile homes that meet federal poverty guidelines issued by The Washington State Department of Commerce and natural gas and/or electricity from PSE. Low Income agencies are contracted with PSE to perform Customer income eligibility, manage the installation and track and report projects to PSE.

# **Customer Incentives Overview**

# All Structures

Funding for Measures and Customer eligibility are outlined in PSE's conservation Tariffs. Funding is disbursed to local agencies. Payments are based on incentives for Measures installed. Local agencies are permitted fixed percentages for administrative costs under the existing tariff.

Under the Matchmaker Agreement with Department of Commerce, PSE's low-income Tariff-based funding may be combined to support a "whole house" approach for structures.

Applicable Low Income Measure category headings include, but are not limited to:

- Building envelope Improvements
- Heating system upgrades
- Water heating upgrades
- Lighting upgrades
- Appliance replacement
- Common area upgrades

Measure incentive eligibility criteria are based on, but not limited to, established, industry-standard cost effectiveness tests, structure type and its location within the PSE service territory, fuel type (gas or electric), product type and product quantity. A detailed list of Energy Efficiency Services Measures, Incentives and Eligibility are included in this Annual Conservation Plan as Exhibit 4.

# **Retrofit-- Multi-Family**

Prescriptive incentives will be applied to Measures installed within units of multi-family residences. In addition to this, calculated commercial Measures are made available for common area Measures. All calculated incentives will be evaluated using currently accepted PSE commercial engineering calculations. Agencies will determine the multi-family common area project and send a proposal to PSE for review. Incentives will be approved by PSE and funding provided directly to agencies.

# **Marketing Plan**

PSE provides a weatherization program brochure, which explains the program and basic eligibility requirements, and lists the agency contact phone numbers. This brochure is normally available to Customers during many public events in which PSE participates. The brochure has been distributed to local agencies serving the low-income population. Any additional promotions will be done in close coordination with local agencies.

# Energy Education

Schedules E202/G207

# Purpose

Offer education programs to broaden knowledge of conservation and renewable energy, and increase participation in efficiency programs. PSE's energy education programs inform, inspire, and empower with the understanding that individual choices do make a difference.

# Description

Education is a key component in furthering consumer energy efficiency and renewable energy awareness so that Customers are adequately informed to make wise energy decisions.

The program will create a forum to provide information to leaders and educators who can leverage the knowledge to a greater audience. The programs will also tie directly to the company's existing EE opportunities, active resource conservation efforts, and commitment to the community channel. The programs will focus on strengthening community actions by developing and preserving local relationships with Customers and other education and community-based organizations.

# Target Markets

Target markets include local schools, low-income populations, seniors, Native American groups, English-as-a-second-language Customers and the general public through community outreach.

# Single Family Existing

Schedules E214, G214

# Purpose

Acquire cost-effective energy savings from existing single-family (less than or equal to four units on a parcel) retrofit Measures and services.

# Description

Single Family Existing programs implement cost effective, targeted, residential energy savings using a menu of prescriptive and calculated efficiency Measure incentives, including rebates for single family existing structures. Existing single family structures are defined as residential dwellings which include; structures with four or less units that are attached by a contiguous roofline, manufactured or factory built homes permanently affixed to a concrete foundation, and manufactured or factory-built homes that are transportable. Single family existing residences exclude structures that are currently under construction. Prescriptive rebates are intended to facilitate participation by Customers, contractors, developers and trade allies, and provide administrative efficiencies for PSE in meeting energy efficiency goals.

**Note:** Multifamily campuses which have a mixture of existing residential building types, including buildings with four attached residential units or less, are served under the Multi-Family Retrofit Program; schedules E217 & G217.

Rebates and incentives offered to eligible natural gas and electric PSE Single Family Existing Customers include a variety of end-use classifications, not limited to:

- Compact Fluorescent Lighting including CFL lamps and CFL fixtures,
- Appliance—including refrigerators, freezers and clothes washers—rebates,
- Refrigerator Decommissioning focused on removing the "garage" unit
- Weatherization, including windows, insulation and duct sealing,
- Space heating including high efficiency furnaces and heat pumps,
- Water heating, including tankless water heaters, heat pump water heaters, and efficient showerheads.

Incentive amounts and savings values are regularly reviewed and are based on regionally accepted energy savings estimates and incremental efficiency Measure cost. Incentives may be subject to change in response to revisions in savings estimates, average incremental cost or changes in Federal appliance efficiency standards or State codes.

# Residential Retail Program

This program collaborates with retailers and manufacturers of energy efficient products – such as lamps, light fixtures, showerheads, electronics, and appliances such as clothes washers, refrigerators and freezers – to ensure that Customers have access to a wide variety of efficient product options. The Retail Program provides incentives and promotions for efficient products to PSE's residential Customers by establishing agreements with retailers and manufacturers; PSE also provides field services to educate retail employees on our products, detail qualifying product, and ensure compliance with PSE agreements.

# Refrigerator Decommissioning

This program provides Customers with a means to safely dispose of their unwanted refrigerators while receiving an incentive for removing a potentially high-energy usage appliance from service. Decommission is differentiated from refrigerator replacement insofar as decommissioned refrigerators are not intended to be replaced with another refrigerator<sup>4</sup>.

#### Refrigerator Replacement – Hard-to-Reach Market

This program encourages customers to replace their old, inefficient primary refrigerator with a basic, efficient model while allowing PSE to remove, decommission and recycle their former unit. This program will be open to all customers but will target the hard-to-reach market (including but not limited to rural, low-income and ethnic populations) due to these segments' likelihood to a) not replace their refrigerator until it breaks and b) replace their unit with a least-cost option (oftentimes a used, older unit). PSE will pay for the cost of the new unit, as well as delivery and installation, and for the decommissioning and recycling of the old unit.

# <u>HomePrint</u>

HomePrint Assessments provide customers with a FREE in-home service performed by a PSE qualified independent HomePrint Specialist. The program is intended to increase the awareness of customers regarding their home's energy consumption and identify cost-effective ways to use less energy. Additionally, customers benefit from instant energy savings from the direct installation of compact fluorescent light bulbs.

# **Weatherization**

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The weatherization program oversees the "shell" of residential structures; installation of windows, insulation, and duct sealing. There are a wide variety of duct sealing offerings, some directed specifically to mobile homes, while other focus on site-built residences.

<sup>&</sup>lt;sup>4</sup> RTF values are substantially different for refrigerator decommissioning versus refrigerator replacement. Additionally, the process for decommissioning at the Customer's residence is completely different.

# Space and Water Heating

The program manages incentives and installations of gas furnaces, heat pumps and water heaters.

# Target Market

The target market for this program includes, but is not limited to single family property owners or tenants, service contractors, retail partners, efficiency equipment suppliers, distributors and manufacturers.

# **Customer Incentives**

Eligibility criteria are based on established cost effective tests. The incentives are effective January 1, 2011. A list of all requirements for incentive eligibility and participation can be found on individual incentive or program application forms. PSE's Energy Efficiency Services maintains a comprehensive list of approved conservation Measures in Energy Efficiency Services' List of Measures, Incentives, and Eligibility. The Company reserves the right to adjust incentives based on market variables.

Applicable Energy Efficiency Incentive Measure category headings include, but are not limited to:

- Weatherization
- Space Heating
- Water Heating
- Appliances
- Refrigerator decommissioning
- Lighting
- HomePrint Assessment

Energy Efficiency Services' List of Measures, Incentives and Eligibility are included in Annual Conservation Plan as Exhibit 4.

# Marketing Plan

The Company will promote these programs through integrated marketing campaigns. These may include:

- qualitative and quantitative target market research
- Brochures, e-news articles and promotion via energy advisors and other PSE representatives
- bill inserts
- Cooperative advertising with product manufacturers or distributors
- paid advertising print, broadcast and radio, direct mail, and electronic media,
- point-of-purchase signage and acquisition of shelf space
- public relations and community event presence
- PSE's Contractor Referral Service, incentives, rebates, coupons, contractor discounts, and seasonal promotions.

# Single Family, New Construction

Schedule E215, G215

# Purpose

Acquire cost-effective energy savings from single-family new construction (less than or equal to four units on a parcel).

# Description

<u>Similar to PSE's Single Family Existing program,</u> rebates and incentives are offered to eligible natural gas and electric PSE Single Family New Construction developers, contractors, trade allies and Customers (cumulatively, the Program refers to these as "partners") who are constructing new single family residential structures (consisting of four or less attached units). EES works with these partners to market energy efficient equipment to their Customers. EES encourages the purchase and installation of energy efficient products for their construction projects.

Incentives include a variety of end-use classifications, not limited to:

- Lighting: Compact Fluorescent Lighting including CFL lamps and CFL fixtures,
- Appliances: Clothes washers, refrigerators,
- Whole House Ventilation,
- HVAC: Furnace upgrades, duct sealing installation in the conditioned space and heat pumps,
- Water heating: storage and tankless water heaters
- Manufactured homes: And ENERGY STAR or EcoRated Manufactured homes, which is unique to this program.

For all of the conservation Measures installed, EES receives Measure installation data directly from builders, developers, showrooms and distributors. It is therefore possible to precisely track Measure details.

# Target Market

The target market for this program may include but is not limited to single family new construction developers, property owners, contractors, retail partners, efficiency equipment suppliers, distributors and manufacturers.

# **Customer Incentives**

Measure incentive eligibility criteria are based on, but not limited to, established, industry-standard cost effectiveness tests, structure type and location within the PSE service territory, fuel type (gas or electric), product type and product quantity. The incentives are effective January 1, 2011. Energy Efficiency Services' List of Measures, Incentives and Eligibility are included in the Annual Conservation Plan as Exhibit 4. PSE may, at its sole discretion, adjust rebates based on market variables.

Incentive amounts and savings values are regularly reviewed by PSE and are based on regionally accepted energy savings estimates and incremental efficiency Measure cost. Rebates may be subject to change in response to revisions in savings estimates, average incremental cost or changes in Federal appliance efficiency standards or State codes.

# Type of rebate/incentive

Qualifying Customers receive incentives by submitting a processing form and invoices/receipts, third party verification and certification of an ENERGY STAR® home, or receive an instant discount through participating trade allies. Incentive requests are screened for completeness of Customer entries, and where required for submittal of additional documentation. Incentive processing complies with PSE internal audit standards.

# Marketing Plan

Marketing outreach and positioning, may include, but are not limited to:

- Program collateral, brochures, newsletters
- Paid advertising: print, broadcast and radio
- Direct mail & bill insert campaigns
- Co-promotion with other utilities, local governments, agencies, and non-profit organizations
- Industry outreach and education
- Public Relations: media interviews, article development and press releases
- Cooperative retail and wholesale trade ally marketing
- Sales person incentives (also referred to as "SPIFFS")
- PSE Website
- Community outreach: event participation, presentations, education
- Energy Efficiency Advisors, Hotline (phone staff)

# Single Family Fuel Conversion

Schedule E216

# Purpose

Acquire cost-effective electric energy savings from existing single-family (less than or equal to four units on a parcel) retrofit Measures and services by converting to natural gas Customers who use electricity as the primary source for their space heat and/or water heat uses.

# Description

The Company provides incentives for replacing existing electric forced-air or baseboard space heating equipment and/or tank style water heating equipment with high efficiency natural gas space heating equipment<sup>5</sup> and/or high efficiency natural gas domestic water heating equipment.

Based on the Measure/product type and market factors, PSE may provide incentives to its Customers at different points along the value chain. Market barriers vary dramatically from Measure to Measure; consequently PSE incentives may occur at the manufacturer, distributor, contractor, retailer or consumer level. Incentive amounts are based on regionally accepted energy-saving estimates and incremental efficiency Measure costs. These incentives may be subject to change in response to revisions in savings estimates, average incremental cost or changes in Federal appliance efficiency standards or State codes. Training, education and support by PSE for independent contractors, distributors, retailers, showrooms, sales associates, consumers and partnering organizations are foundational to the success of this program.

# **Target Market**

Existing Single Family Electric Service Customers on or near gas mains with specific ranges of annual electricity usage.

PSE estimates that approximately 10 percent of the Customer base qualifies for the incentive, creating a finite and specialized niche for conversion opportunities. To date, the majority of conversions are water heater installations. Dealers indicate that 50-70 percent of the water heater conversions require relocation of the equipment to meet the efficiency code requirements. PSE incentives assist Customers offset these relocation costs. Another opportunity requiring PSE focus is that of construction costs, such as meter installation and street restoration where natural gas lines aren't yet installed or require overhaul.

<sup>&</sup>lt;sup>5</sup> As outlined in the Company's Schedule 216, **Section 1, Availability/Eligibility**, the equipment to which the Customer is converting must be "highly efficient natural gas space and/or domestic water heating..."

# Customer Incentives

Fuel conversion incentives are prescriptive and based upon the Measure type installed and the kWh usage the Measure offsets. Eligibility criteria are based on established cost effective tests and prior electrical usage as primary heating source for space and/or water heating. The incentives are effective January 1, 2010. A list of all requirements for rebate eligibility and participation can be found on individual rebate or program application forms.

Applicable Existing Single Family Premises Measure category headings include, but are not limited to:

- Space Heating
- Water Heating

# Marketing Plan

PSE promotes this program through an integrated campaign. This includes, but is not limited to, qualitative and quantitative target market research, educational materials, product/service brochures, bill inserts, paid advertising (includes co-op initiatives) such as print, broadcast and radio, direct mail, electronic media, public relations, community event presence, PSE's Energy Advisors, PSE's Contractor Referral Service, incentives, rebates and coupons.

#### 2011

# Multifamily Existing

Schedule E217, G217

# Purpose

To increase the installation of cost effective energy efficient Measures into existing electric & natural gas heated multifamily (MF) buildings in PSE's service area.

# Description

The Multi-Family Retrofit Program is designed to increase the installation of selected energy efficient Measures in existing multifamily structures. These structures include, but are not limited to, apartments, town homes, condominium residences and similar structures with five or more attached dwelling units. The program also serves multifamily Campuses which have a mixture of building types including buildings with less than five units. The team works with property owners, managers, contractors' trade allies and tenants to encourage installation of energy efficient Measures. These structures typically have opportunities for upgrades in common areas, building envelope and in the units. Measures include window and insulation upgrades, appliance, lighting, HVAC and water heating upgrades and calculated commercial upgrades including boilers and solar pool heaters. This program targets installation of energy efficient Measures occurring during planned retrofit and replace upon failure. PSE is currently undergoing a multifamily existing program evaluation. Based on the results, PSE will update current Measures and incentives list.

# Target Market

The target market for this program includes multifamily property owners, managers, maintenance staff and equipment suppliers and contractors.

# **Customer Incentives Overview**

Measure incentive eligibility criteria are based on, but not limited to established, industry standard cost effectiveness tests, structure type and its location within the PSE service territory, fuel type (gas or electric), product type and product quantity. A detailed list of Energy Efficiency Services Measures, Incentives and Eligibility are included in Exhibit 4 of this Annual Conservation Plan.

# Marketing Plan

The marketing positioning for the 2010 – 2011 program will start with close examination of the existing marketing plan and adjustments made based on current opportunities in this sector. The tools developed will include a variety of integrated promotional devices needed to contact and solicit program participants.

Marketing outreach and positioning, as identified in the supporting marketing plan, may include, but is not limited to:

2011

- Qualitative and quantitative target market research
- Program collateral/ brochures
- Direct mail campaigns
- Event participation and sponsorship
- Program presentations
- Paid advertising: print, broadcast and radio
- PSE Website
- Co-promotion with other utilities, local governments, agencies and non-profit organizations
- Community outreach and education
- Public Relations: media interviews, article development and press releases
- Electronic newsletters
- Cooperative trade ally marketing
- Energy Efficiency Advisors, Hotline (phone staff)
- Internal employee communications and training
- Evaluate ROI: measuring marketing outreach effectiveness

#### 2011

# Multifamily New Construction

Schedule E218/G218

# Purpose

PSE's multi-family new construction program increases the installation of energy efficient Measures into new electric & gas heated multifamily (MF) buildings constructed in the PSE service territory. High efficiency Measures need to be specified and installed during design and construction. Otherwise, it may be up to 30 years before energy efficient changes to the buildings will take place. For Measures and incentives that apply to existing structures, please refer to the Multi Family, Existing Program Measures.

This program will target structures with three or more residential units per building, per Washington State Energy Code 2009 Edition (effective January 1, 2011). These structures typically have both in-unit and common area energy-savings opportunities. These include, but are not limited to, energy efficient upgrades to building shell, appliances, lighting, HVAC and water heating systems.

Eligible Customers include an owner, developer, or agent acting on behalf of responsible party of service receiving electricity or natural gas through PSE. This program provides financial incentives to the above audience for both natural gas and electric residential and commercial meters. The incentives offered are both prescriptive and calculated.

# Description

Under this comprehensive program, financial incentives for multifamily new construction projects are packaged under one grant and are structured to work in accord with current commercial programs. PSE provides a single "point of contact" to development teams for all energy efficient Measures/upgrades. This allows PSE to maximize the energy savings opportunity in each development and reduce multi-program confusion for the Customer.

The program includes prescriptive rebates/incentives and calculated grants. Eligible Customers include builders, developers, owner or agent receiving electricity through PSE's residential schedules 7 (including 17, 27, 37 and 47) and 7A; and commercial schedules 8, 11, 12 and 24; and / or natural gas service through PSE's residential schedule 23 and commercial schedule 31.

Structures include but are not limited to apartments, town homes, condominiums, and assisted living residences. There are three distinct construction types in this market that typically offer in-unit and common area energy saving opportunities:

- 1. Low/mid rise construction
- 2. High rise construction
- 3. Assisted Living/Affordable Housing construction

There may be any combination of residential and commercial meter mixes in all three types of construction. Once the meter type mix is confirmed with the development team, the appropriate PSE programs are identified to serve that development.

# **Target Market**

The target market for this program includes new construction multifamily property developers, architects, mechanical and electrical engineers, general contractors and equipment suppliers.

# **Customer Incentives**

Incentive schedules may be based on the building types described below:

**Low/midrise construction:** where residential meters serve space/water heating and plug load, residential incentives shall apply. For common areas in these buildings, commercial incentives may apply. Program staff may work closely with the EES Business Energy Management team to collaborate on potential custom calculated incentives identified during project evaluation.

**Hi-rise construction:** where commercial meters serve the unit space/water heat, commercial and/or residential incentives may apply. Where residential meters serve the in unit load, residential incentives shall apply. For common area meters located in these buildings, commercial incentives may apply. Program staff may work closely with the EES Business Energy Management team to collaborate on potential custom calculated incentives identified during project evaluation.

Assisted Living/Affordable housing/Dormitory construction: where commercial meters serve the unit space/water heat, commercial and/or residential incentives may apply. Where residential meters serve the space/water heating and plug load, residential incentives shall apply. For the common areas, commercial incentives may apply. Program staff may work closely with the EES Business Energy Management team to collaborate on potential custom calculated incentives identified during project evaluation.

Incentive schedules are identified by heat source. Calculated incentives will be offered based on standard energy efficient calculation practices. Incentives may be paid upon completion of work and submittal of required program documentation. Field inspections and audits will be conducted at random to ensure quality installations and verify completion of work.

PSE's Energy Efficiency Services maintains a comprehensive list of approved conservation Measures in Energy Efficiency Services' List of Measures, Funding and Incentives, which is included in this Annual Conservation Plan as Exhibit 4.

# Marketing Plan

The market constituents are developers, architects, general contractors, sub contractors and equipment suppliers that develop multifamily housing. To successfully market to this community, PSE will develop and distribute marketing materials using direct mail (solicitation letters), program presentations, as well as other marketing opportunities as identified in the program marketing plan. The PSE Multifamily Program Manager will take a leading role in promoting this program.

PSE will focus on a "Customer approach" during the early design phase of these developments. Since multifamily new construction projects have very long construction cycles, it is extremely important to position early with development teams. When a developer makes a decision to include the energy-efficient upgrades, it may take up to two years for the Measures to be installed and verified; therefore developers must make the decision early in order incorporate PSE products.

To generate and identify lead opportunities, PSE will leverage between internal and external partners.

- Internal partners include PSE Builder Representatives, Community Relations Managers, Customer Construction Services, EES Market Managers, and other internal staff.
- External partners include media outreach to obtain permit information through applicable publications and other industry periodicals. PSE may also work with city/county building departments located in PSE's service area to develop a process to secure early permit information. Other external relationship opportunities focus on collaboration with industry partners that may include, but not be limited to, the AIA Seattle, USGBC, ULI and Built Green organizations. These types of relationships could easily promote the MF NC program, giving it more visibility through sponsorship and advertising opportunities.
- Educational tools may include developing program information for building jurisdictions to circulate to applicants during the design review stage.

# <u>Pilots</u>

Schedule E249

Pilot programs and demonstration projects may be undertaken to determine whether certain strategies and Measures are cost-effective in the long run. Pilots are employed to test cost-effective ways to demonstrate market opportunities for energy efficiency.

2011

Pilots may include tests of Measure cost and performance, Customer acceptance and delivery methods. In compliance with Settlement Agreement condition K(7)(d), pilots will only claim energy savings that achieve energy savings sufficient to demonstrate cost-effectiveness by passing the TRC test.

# **Consumer Electronics**

# NEEA Joint Utility Upstream Consumer Electronics Program

#### Purpose

To work in conjunction with utilities across the west coast to gain distribution at retail and promote efficient TVs (currently those that are 30 percent more energy efficient than current ENERGY STAR® standards) to achieve measureable energy savings and to establish a baseline in the northwest for market share and cost effectiveness for TVs.

#### Description

Electronics/plug loads is the fastest growing end-use in the nation, estimated at 6% growth per year. This program provides relatively small but meaningful incentives to retailers and/or manufacturers to move more energy efficient televisions into the market (in this case, 30 percent more efficient than current ENERGY STAR® specifications). The incentives will provide a means to influence the product mix stocked and sold so that more energy efficient models end up in our Customers' homes in place of less efficient models.

In addition to the incentives there is a consumer awareness component to this program. Participating retailers will have their relevant staff members trained on the benefits of participating models and stores will be detailed with signage and POP materials to make Customers aware of which units qualify for the program and hence use less energy than average.

# Target Market

PSE, through NEEA, will be offering incentives primarily to retailers within our electric service area, though incentivizing parties further upstream is also an option.

# **Customer Incentives Overview**

Retailers receive an incentive for each qualifying television sold under the pilot.

# **Marketing Plan**

Retailers are engaged to implement the pilot. Retail staff are trained to relay the benefits of qualifying units to Customers, and stores are detailed with signage and point of purchase materials.

# Heat Pump Sizing & Lock out Controls

# Purpose

Identify energy savings potential through correct Heat Pump Sizing & Lock out Controls for existing single-family homes.

# Description

This pilot Measure will be delivered through an existing contractor network, to assure properly sized heat pump systems by following industry standard sizing recommendations, and by installing an outdoor control (thermostat) that will sense outdoor temperatures. This control will lock out inefficient auxiliary heat down to specified temperatures in order to achieve full energy saving potential of heat pump systems. PSE will offer this pilot to 1,000 single family homes throughout PSE's service territory.

Contractors participating in the program will be required to go through a technical training program that will be administered by PSE or a consultant hired on our behalf.

# Target Market

PSE will offer this pilot to 1,000 single family homes throughout PSE's service territory. Our primary target will be homes heated with electricity as their primary heating source without other fuels as auxiliary. The energy usage of the test group will be compared to control data and evaluated after 2010-2011.

#### **Customer Incentives Overview**

This pilot Measure provides a \$200 incentive, to be delivered through an existing contractor network.

# Marketing Plan

A marketing plan will be identified with development of the pilot program.

# High Efficiency Natural Gas Fireplace

#### Purpose

Identify energy savings potential through the installation of a high efficiency natural gas fireplace for single-family homes.

#### Description

High-efficiency direct vent gas fireplaces provide heat directly in the room. Advances in gas heating technology make these heat sources safe and easy to operate. Units must be direct vented with sealed combustion. PSE will utilize our existing contractor network for installation. PSE will offer this pilot to 500 single family homes throughout PSE's service territory.

#### Target Market

PSE will offer this pilot to 500 single family homes throughout PSE's service territory. Customer must be an existing PSE natural gas Customer currently heating their home with natural gas. Fireplaces must be installed within the home. The energy usage of the test group will be compared to control data and evaluated after 2010-2011.

#### **Customer Incentives Overview**

This pilot Measure provides a \$200 rebate incentive for direct vent natural gas fireplaces that meet the Canadian P4 Fireplace Efficiency (FE) standard of 70 percent or better.

# Marketing Plan

A marketing plan will be identified with development of the pilot program.

# Home intelligence/automation

#### Purpose

Identify energy savings potential by deploying communicating home intelligence/home automation devices.

#### Description

This pilot Measure will provide PSE with information on the energy savings value of having integrated home energy use information, display, and controls. Many products available are capable of communication with the utility through mesh networks via metering or internet protocols. Intentions for this pilot will be to identify a product or products that allow homeowners to manage specific outlets, circuits, or appliances from a single dashboard device.

# Target Market

PSE will offer this pilot to 500 single family residential homes throughout PSE's combined gas and electric service territory. Additional program targets may be set upon development of the program design.

# **Customer Incentives Overview**

Incentives to the Customer will be identified with the development of the pilot program. As a pilot program we will work towards an incentive that will ensure our ability to collect necessary program and evaluation data.

# **Marketing Plan**

A marketing plan will be identified with development of the pilot program.

# Micro-combined Heat and Power (CHP) System - Freewatt® Plus System

# Purpose

Identify energy savings potential through the installation of micro-combined heat and power (CHP) system, Freewatt® Plus System, for single-family homes.

# Description

This pilot Measure combines two technologies, an advanced warm air furnace that will also incorporate domestic water heating and a gas fired engine generator. This hybrid heat and power generation package provides energy efficiency in combined heat and power delivery to the home. The Freewatt® system is designed to be installed in the place of a typical furnace and uses the same ductwork system to deliver the heat to the home.

# **Target Market**

PSE will offer this pilot to 20 single family homes within PSE's service territory. These targeted homes are ideally close in proximity for monitoring and time-efficiency reasons. Homes should be close to the average size home and occupancy for our service territory. Natural gas must be available to the home. The energy usage and generation of the test group will be both individually monitored and compared to control data. All data will be evaluated for savings after 2010-2011.

# **Customer Incentives Overview**

Incentives to the Customer will be identified with the development of the pilot program. As a pilot program we will work towards an incentive that will ensure our ability to collect necessary program and evaluation data.

# Marketing Plan

This pilot program will not be marketed due to the limited number of participating Customers.

# **OPOWER (formerly Positive Energy) Home Energy Reports**

#### Purpose

The Home Energy Report pilot is a no cost/low cost behavioral modification energy savings project. Determining if and to what degree energy savings can be quantified through the project will determine the level of success.

# Description

Home Energy Reports are customized reports mailed directly to PSE Customers that help each residential Customer better understand their home electric and gas consumption, motivate them to conserve and provide targeted calls to action tailored to help each Customer save money and improve energy efficiency. The initial pilot included 40,000 combined gas and electric single family households and has been running since 3<sup>rd</sup> quarter 2008. Additional Customers will be added in partnership with communities who are interested in bringing the reports to their constituents, and in order to further evaluate the pilot. We are expecting to add an additional 64,000 dual fuel Customers in east King County as well as a number of electric only Customers: 22,000 in Whatcom County, 5,200 on Bainbridge Island, and 13,000 in east King County (approximation).

- 12-month Energy Comparison Report: Combines GIS data and historical energy data to show Customers how their energy use compares to other residents who are most like them (age of house, sq ft. of house, on their block or in their zip code). This has been proven to be an effective piece of information to motivate consumers to conserve energy.
- Targeted Energy Savings Tips: For every season and city there are simple changes that Customers can make to reduce their energy consumption. The design and language of our tips and messages are customized and based on many years of academic and clinical research performed by our team. The tips are targeted based a number of factors including housing data, demographic information (e.g. renter vs. home-owner), and energy consumption patterns.
- Progress Tracker: The Progress Tracker reinforces the positive aspect of energy savings by applauding Customers who reduce their consumption and assisting Customers who are not progressing. This component employs well researched injunctive messaging to reinforce norms.

## Administrative & Customer Service Database Support Tool

Through OPOWER's proprietary technology platform, PSE's Customer service staff and administrators will have access to personalized websites and reports about each Customer enrolled in the Home Energy Report program. This additional information will allow Customer service representatives to more easily provide recommendations and advice to PSE Customers.

## Target Market

The initial pilot included 40,000 combined gas and electric single family households and has been running since 3<sup>rd</sup> quarter 2008. Additional Customers will be added in partnership with communities who are interested in bringing the reports to their constituents, and in order to further evaluate the pilot. We are expecting to add an additional 64,000 dual fuel Customers in east King County as well as a number of electric only Customers: 22,000 in Whatcom County, 5,200 on Bainbridge Island, and 13,000 in east King County (approximation).

#### **Customer Incentives Overview**

Customers do not receive a monetary incentive for participation. Rather, receiving the reports and access to the Energy Insider website are the incentives for participating in the program. The program may need to collect survey data for evaluation purposes and survey respondents are expected to receive an incentive for their participation.

#### **Marketing Plan**

This is an opt-out program; Customers will receive the reports automatically in the mail and will have the option to opt out of receiving future reports.

## Prepay billing system

#### Purpose

Identify savings potential and occupant behavior based on the installation of a prepay billing module and accompanying in-home display.

#### Description

PSE will use a metering and/or billing system to help Customers monitor and control electric consumption. The in-home display shows Customers how much energy they have used, are currently using, and how much credit they have remaining. The program is expected to result in energy savings due to the occupants' heightened awareness. System(s) include advance alerts and warnings when the credit threshold is low and allows for traditional payment methods including web, phone, mail, and paystations.

## Target Market

PSE will offer this pilot to single family electric Customers within PSE's service territory. Participation will be voluntary. Additional program targets may be set upon development of the program design.

#### **Customer Incentives Overview**

Incentives to the Customer will be identified with the development of the pilot program. As a pilot program we will work towards an incentive that will ensure our ability to collect necessary program and evaluation data.

#### Marketing Plan

A marketing plan will be identified with development of the pilot program.

## **Residential Grants**

#### Purpose

Identify energy savings potential from custom grants for large residential energy retrofit projects or Measures that save energy on a comprehensive level.

#### Description

This pilot Measure will utilize advanced energy modeling and structure-specific data to identify the energy savings value of an identified project. The savings will be unique to each project and allow a program approach similar to that of the existing commercial retrofit custom grant program. Delivery of this program could potentially be integrated into PSE's HomePrint Measure.

#### Target Market

PSE will offer this pilot to 30 residential electric single family existing Customers. These may include dual fuel Customers. Projects are expected to be include space heating and domestic hot water heating Measures.

#### **Customer Incentives Overview**

Incentives to the Customer will be identified with the development of the pilot program. Initial plans are to model the incentive after the commercial retrofit custom grant program.

#### Marketing Plan

A marketing plan will be identified with development of the pilot program. Participants will likely be identified through PSE's HomePrint Measure and Energy Advisors, and will likely target Customers who are planning to perform a comprehensive energy retrofit to their home.

# Residential Retail LED Pilot

#### Purpose

Gather customer feedback and measure consumer willingness to adopt LED lighting technology to replace general service lamps in order to assess the potential for a larger-scale incentive on LED products.

#### Description

Residential customers will be prequalified to receive a discount on qualified LED products. Consumers who receive a PSE incentive will be engaged to participate in a technology forum where the performance of the products may be discussed. This is a primary function of the pilot in order to manage the consumer expectations around the product and gather valuable customer feedback to assess the potential for a larger-scale incentive on LED products.

#### **Target Market**

PSE will offer this pilot to single family electric Customers within PSE's service territory, with expected sales of approximately 25,000 units in 2011. Additional program targets may be set upon development of the program design.

#### **Customer Incentives Overview**

Up to \$10 per unit for models that meet ENERGY STAR specifications.

#### Marketing Plan

Development of an online forum for consumers to share their experience with incentivized LED products; In-store promotional materials and signage to create awareness; Inclusion of traditional retail channel strategies will promote further partnerships with retailers and manufacturers.

# **BUSINESS PROGRAMS**

2011

## Commercial/Industrial Retrofit

Schedules E250/G205

#### Purpose

The purpose of the Commercial and Industrial Retrofit program is to encourage Puget Sound Energy's existing Commercial and Industrial (C/I) Customers to use electricity and natural gas efficiently by installing cost-effective energy-efficient equipment, adopting energy-efficient designs, and using energy-efficient operations at their facilities. In addition, incentives will be available for fuel switch Measures that convert from electric to natural gas while serving the same end use.

## Description

PSE works with commercial and industrial Customers to provide incentives for costeffective energy efficiency upgrades to equipment, building shell, industrial process, and select 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 conducts energy audits to determine savings opportunities and makes recommendations to Customers. PSE also reviews third-party savings estimates and analyses, and when required performs in-house analyses to validate energy savings. PSE works with financial decision makers at the Customer's facility to ensure the Customer is aware of cost-savings opportunities, including review of energy saving projections that can help obtain favorable financing rates.

Commercial/industrial retrofit projects commonly include: lighting system upgrades, HVAC equipment upgrades, HVAC controls improvements, commercial refrigeration Measures, and industrial process modifications. Additionally, incentives for existing building commissioning (O&M) improvements are provided through the Building Energy Optimization Program offered under C/I retrofit.

Upon Customer's decision to proceed with a project, PSE issues a standardized Conservation Grant Agreement that establishes terms and conditions for participation in PSE's Custom Grant Program. After the agreement is signed by both parties, Customer is given notice to proceed with the energy efficiency project. Following completion of the project, PSE verifies the installation and energy savings via an on-site inspection, review of equipment operation and trend log data where necessary, and collection of project invoicing and specifications of installed equipment.

## **Target Market**

Medium to large commercial and industrial Customers present the greatest opportunity for cost effective projects under this program.

## **Customer Incentives Overview**

Incentives are effective January 1, 2011.

- Site-Specific Basis incentives, or "custom" incentives, rely on generally accepted engineering calculations and Measure costs provided by the Customer or the Customer's contractor. Electric and gas Measures may receive maximum incentive grants up to 70 percent of the Measure cost when the grant incentive does not exceed the cost-effectiveness standard, less program administration costs. Measures whose cost exceeds the cost-effectiveness standard will receive grants that are on a declining scale and will be less then 70 percent of the Measure cost. Generally, electric and gas Measures that have a Simple Payback of less than one year are not eligible for a Site-Specific Basis incentive. *Prescriptive Basis incentives* are eligible for rebates under Schedule 262E/262G, Commercial and Industrial Incentive Program. The incentive amount for a Measure is the same as that which is available under Schedule 262E/262G, but energy savings may be calculated based on actual Site-Specific conditions.
- *Energy-use monitoring*: PSE may provide secure web site access to facility energy-use data for building occupants, free of charge for up to two years. More typically, access will be free of charge for one year to allow the occupant to verify building and/or Measure performance according to energy-use projections. To be eligible, Customers must be on a rate schedule with demand (kW) as well as energy (kWh) charges. Compatible metering and remote data retrieval capability must be in place at the Customer's facility. PSE is not obligated to replace or upgrade nonconforming meters. Customers are expected use the monitored information to improve energy efficiency at the facility. Customers will demonstrate annual energy savings potential through energy management operations and maintenance as well as identification of further efficiency Measures and equipment upgrades.

Incentives for short and long payback projects will be adjusted as needed, according to market conditions.

*Processing Incentives*: Customers provide PSE with project costs and estimated savings. Customers assume full responsibility for selecting and contracting with third-party service providers. Projects must be approved for funding prior to installation/implementation. A grant agreement will be required.

All Commercial and Industrial Retrofit incentives will be processed using a standard Grant Agreement, listing the Measure description, Measure Life, Measure cost, and Grant Amount. An attachment to the Grant Agreement will list specific Measure details, and will describe the process PSE will use to verify that the Measure is installed and performing efficiently.

The PSE Energy Management Engineer (EME) and the manager of C/I Conservation oversee all incentives and program operations. EMEs update project changes in the tracking system and review monthly results. The manager of C/I Conservation reviews the cost-effectiveness of all efforts. A review of results and refinement of program strategies are conducted annually.

Measure incentive eligibility criteria are based on, but not limited to, established, industry-standard cost effectiveness tests, structure type and its location within the PSE service territory, fuel type (gas or electric), product type and product quantity. A detailed list of Energy Efficiency Services Measures, Incentives and Eligibility are included as Exhibit 4 of the 2011 Annual Conservation Plan.

# Marketing Plan

Marketing efforts are based on consideration of specific market sub-segments, Customer decision making, market penetration estimates and PSE engagement with relevant Customer and trade groups.

Marketing will be conducted via some combination of the following:

- PSE will work through traditional Customer and trade ally channels to target program participants; e.g. ASHRAE, BOMA, WAMOA, IFMA, conferences, referrals from other PSE employees, and word-of-mouth from Customers.
- Case studies, press releases, general-interest articles in local publications and Puget Sound Energy's e-newsletter for business Customers.
- Promotion via brochures, bill inserts and PSE.com

## Commercial/Industrial New Construction

Schedules E251/G251

## Purpose

The purpose of the Commercial and Industrial New Construction Program is to encourage efficient design, building components and equipment in new buildings by working with Customers, tenants, owners, designers and builders of new Commercial and Industrial (C/I) facilities. Provide incentives for installation of cost-effective energy efficient Measures to achieve savings beyond the applicable Energy Code.

# Description

PSE works with designers and developers of any large or small new Commercial / Industrial facilities, or major remodels, to propose cost-effective energy efficient upgrades that exceed energy codes or standard practice where minimum efficiency requirements are not prescribed by code. Four paths may be followed to qualify for assistance and/or funding for New Construction energy efficiency Measures. New Construction Commissioning is also offered in addition to the building paths.

The first path is a prescriptive approach applicable to office, school and retail facilities less than 100,000 square feet. PSE recommends standardized packages of efficiency Measures that typically yield savings of 10 percent or more versus a facility constructed to the minimum requirements of Washington State Energy Code 2006 Edition. Efforts are underway to develop a new prescriptive program based on WSEC 2009 Edition that will be announced when the new edition of code becomes effective.

The second path utilizes building energy simulation to demonstrate improvement over energy code requirements. PSE will work with designers to incorporate Measures that produce at least 10 percent overall savings beyond applicable energy code, including local jurisdiction amendments. Given the time required for planning and construction, these projects typically take several years to complete.

The third path is similar to the retrofit program where Measures are evaluated individually and funding is based upon cost-effectiveness. Under this approach, Customers may receive up to 70 percent of the incremental cost over a code-compliant baseline option.

The fourth path includes Prescriptive Basis incentives for Measures that are eligible for rebates under Schedule 262E/262G, Commercial and Industrial Incentive Program. The incentive amount for a Measure is the same as that which is available under Schedule 262E/262G, but energy savings may be calculated based on actual Site-Specific conditions.

New Construction Commissioning (Cx) includes three phases: Design, Construction, and Post-Occupancy. The total incentive available for all three phases combined is up to \$0.50/square foot. A complete listing of available incentives is provided in Exhibit 4 of this 2011 Annual Conservation Plan.

Customers assume full responsibility for utilizing their design teams and contractors to provide information to PSE for evaluation for grant funding. Projects must be approved for funding prior to installation/implementation to be eligible.

## Target Market

Owners and developers of commercial or industrial facilities to be served by PSE with electricity or natural gas are eligible for new construction incentives.

## **Customer Incentives Overview**

Customers provide PSE with project scope, costs and estimated savings. Customers assume full responsibility for selecting and contracting with third-party service providers. A grant agreement or signed prescriptive Measure rebate application will be required.

Whole Building Approach incentives: PSE provides incentive for projects designed and built to be at least 10 percent more energy efficient than a Code baseline building built under the applicable Energy Code. Under the *prescriptive whole building approach* PSE will offer incentives for various energy efficient design packages. The list of Measures by package will be available on the program application forms. Under the *energy model whole building approach*, PSE will offer an increasing incentive amount for efficient designs that exceed the Energy Code baseline by 10 percent, prorated to a maximum incentive for buildings that exceed the Code baseline by 30 percent or more. The *energy model whole building approach* incentive, based on percent savings, may be reduced if it does not meet the Cost Effectiveness Standard.

Eligibility for Whole Building incentives: Whole Building Incentives are designed for buildings which will receive electric service from PSE and natural gas service from either PSE or another provider in the future. Projects to be served only with natural gas from PSE do not qualify for whole building incentives. *Prescriptive whole building approach* incentives are only available for projects being built under the 2006 Washington State Energy Code, including amendments by local jurisdictions.

Projects using multiple energy sources, but to be served with electricity from PSE must demonstrate that the electricity-efficiency as well as the whole-building efficiency is improved by a minimum of 10 percent to qualify for an incentive. Low energy-intensity facilities using less than 30,000 BTU/sqft.-yr for HVAC, lighting and water heating as a Code baseline (e.g. warehouses, religious facilities) do not qualify for the *energy model whole building* incentives, but may use the *prescriptive whole building, component* or *prescriptive rebate approach*. In instances where project first-costs, site conditions, or operational parameters lead to a Customer fuel choice that would offset gains from implemented efficiency Measures, incentives for fuel switching may be provided; however, choices that totally eliminate the need to provide an energy source to the site are not eligible.

- Component Measure incentives: For energy-efficient Measures with a simple Customer payback greater than one year, PSE provides grants toward the incremental installed cost of the Measure. Maximum grants will be based on the Company's cost-effectiveness criteria. Electric and gas Measures may receive incentive grants up to 70 percent of the incremental Measure cost where the grant incentive does not exceed the cost-effectiveness standard less program administration costs. Measures that exceed the cost-effectiveness standard will receive grants that are on a declining scale and will be less than 70 percent of the Measure Cost. In instances where project first-costs, site conditions, or operational parameters lead to a Customer fuel choice that would offset gains from implemented efficiency Measures, incentives for fuel switching may be provided; however, choices that totally eliminate the need to provide an energy source to the site are not eligible.
- New Construction Prescriptive Rebates: Rebates for equipment listed under the electric/gas Commercial and Industrial Incentive Program are available for new construction except when required by the applicable Energy Code. Rebates are not available, however, when there is an energy interaction with Measures proposed under the energy model whole building approach, prescriptive whole building approach, or the component approach.
- *Building Commissioning*: Where funding for installed Measures is provided, PSE requires a copy of commissioning work items completed and presented in the final commissioning report, as required by the Energy Code. In addition, if the Customer engages the services of a commissioning agent who is independent of the design and construction team, then the Customer may be eligible for an incentive. To qualify for this incentive, commissioning shall focus on energy efficiency and all significant energy-using systems. As a minimum, lighting, HVAC and domestic hot water (DHW) systems must all be commissioned.

The commissioning agent is encouraged to be involved from the initial design of the project and must be involved at least by the Design Development phase of the project to receive an incentive for design phase commissioning. If the commissioning agent conducts design reviews, focusing on energy efficiency and integrated design that lead to reduced building energy loads, an additional incentive may be provided. PSE will consider the Measure cost as that portion of the commissioning agent services that will impact energy efficiency on the project. The savings shall be assumed to be a percentage of the building's estimated annual energy use. This percentage will be based on studies of the energy savings impact of commissioning. The savings will be adjusted after the building is built and initial usage data can be used to better predict long-term energy use.

To better assure long term efficient operation of the building, additional PSE support shall be provided in the first year of occupancy. During this post occupancy phase, the commissioning agent, using interval and monthly billing data from PSE as well as any Customer energy DDC monitoring, shall analyze the building's energy use and assist in final energy optimization of the systems. The commissioning agent shall prepare (or update if one already exists) a systems manual describing the major energy using building systems (HVAC, lighting, DHW, etc.), including control sequences, operating setpoints, schedules, and procedures for testing and verifying proper operation of the equipment and controls. As part of this post occupancy service, the owner's operation staff shall be trained in how to continue to monitor their energy use and run the building efficiently, using the systems manual as a reference.

*Energy-use monitoring:* Upon occupancy, the Company may provide secure web site access to facility energy-use data for building occupant, free of charge for up to two years. More typically, access will be free of charge for two years to allow the occupant to verify building and/or Measure performance according to energy-use projections. To be eligible, Customers must be on a rate schedule with demand (kW) as well as energy (kWh) charges. Compatible metering and remote data retrieval capability must be in place at the Customer's facility. PSE is not obligated to replace or upgrade nonconforming meters. Customers should use the monitored information to improve energy efficiency at the facility. Customers will demonstrate annual energy savings potential through energy management operations and maintenance as well as identification of further efficiency Measures and equipment upgrades.

Measure incentive eligibility criteria are based on, but not limited to, established, industry-standard cost effectiveness tests, structure type and its location within the PSE service territory, fuel type (gas or electric), product type and product quantity. A detailed list of Energy Efficiency Services Measures, Incentives and Eligibility are included as an Attachment to the 2011 Annual Conservation Plan as Exhibit 4.

#### Marketing Plan

Marketing efforts are based on consideration of specific market sub-segments, Customer decision making, market penetration estimates and PSE engagement with relevant Customer and trade groups.

Marketing will be conducted via some combination of the following:

- PSE will work through traditional Customer and trade ally channels to target participants, primarily architects, designers and engineering firms through AIA, ASHRAE and Cascadia Chapter of the US Green Building Council, and will rely on word-of-mouth from Customers.
- Case studies, press releases, general-interest articles in local publications and Puget Sound Energy's e-newsletter for business Customers.
- Promotion via brochures, bill inserts and PSE.com

## Resource Conservation Manager

Schedules E253/G208

## Purpose

The purpose of the Resource Conservation Manager program is to achieve Customer cost reductions for major resource utility bills through behavioral changes, operational improvements, facility maintenance, and attention to utility-cost accounting. Savings result from changes in practices and do not require major investments in equipment.

## Description

PSE offers Resource Conservation Manager Services (RCM) to any school district, public-sector government agency, and commercial or industrial (C/I) Customer with sufficient energy use to ensure program cost-effectiveness. The RCM program focuses 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.

Customers qualify for the RCM program based on their annual PSE energy purchases. A typical Customer baseline for a fulltime equivalent (1 FTE) program is 20,000,000 kWh or 2,700,000 therms for gas-only service from PSE. Funding levels are prorated based on the amount of staff a Customer would need to allocate in order to achieve cost-effective savings from RCM efforts.

Monetary grants include a "start-up" grant for completion of deliverables associated with building the program foundation: hiring an RCM, setting up an energy-accounting database, writing a company resource management plan, and completing facility action plans. Once start-up deliverables are complete, the Customer may qualify for "performance grants" based on achieving pre-established energy-reduction targets. Salary guarantees are available for Customers with a full-time program on an as-needed basis.

The RCM agreement is valid for three years. Over this time, PSE anticipates a 10-12 percent reduction in overall energy use. Savings are calculated using industry standard practices and energy accounting methodologies. Reported annual savings are a variance from the previous year. PSE may elect to renew a Customer's RCM agreement in three-year increments to provide continued support and additional performance incentives.

Puget Sound Energy's RCM program is comprised of a "menu" of service features which can be tailored to meet the specific needs of the Customer. Typical RCM support services include, but are not limited to the following:

#### Program Start Up

- Assistance with designing and implementing an RCM program;
- Assistance in hiring or contracting a Resource Conservation Manager;
- Assistance in developing baselines, resource policy guidelines, and facility action plans;

## Resource Accounting Software

- Assistance in the purchase and implementation of resource accounting software;
- Perform audits of existing databases to review for inclusion of all facilities, accounts, meters, etc., sufficient facility details, missing data, and overall data integrity.

#### **Technical Assistance**

- Provide assistance with on-site walk-through audits to identify resource savings opportunities;
- Assist in analyzing and reporting savings relative to established baseline;

## Education & Training

- Provide training for Resource Conservation Manager and other facility personnel such as custodians and maintenance staff;
- Provide educational materials for classroom or building occupant use;
- Provide training stipend to support professional development in Building Operation or Energy Management. Training stipend is based on achieving the Building Operator Certification Levels I & II.

## Energy Data Services

- Provide PSE billing data in electronic format for import into resource accounting software;
- Provide energy-use-metering services for web viewing of facility gas and electric meter data;

#### Incentive Programs

- Provide a grant to partially fund a start-up RCM position, provided there is a mutual agreement that the Customer will match the "start-up" funding support.
- Provide cash incentive programs for specific actions by occupants and staff which reduce energy consumption in individual facilities; and
- Provide cash incentives for Customers who achieve a pre-established targeted amount of energy savings.
- Provide a salary guarantee for Customers implementing a program with one or more full-time RCM employees.

PSE is exploring ways to make RCM cost-effective for smaller Customers. Shared RCM services among a group of smaller organizations has generated interest from local governments and other organizations with smaller facility portfolios. PSE efforts will continue to work with RCM consultants to develop this market.

PSE has also assisted Customers in participating in EPA's Energy Star program. PSE will continue to help identify potential award targets, improve energy efficiency to meet award qualifications, coordinate the application and inspection process, and submit material to EPA for Energy Star awards.

Additionally, access to energy accounting software has allowed PSE RCM Customers to facilitate greenhouse gas accounting and other climate change and sustainability initiatives. The value of this service routinely exceeds those stated in the RCM program scope of work.

## **Customer Incentives**

PSE continues to develop creative incentive options to increase RCM support for a variety of Customer segments.

- Resource Accounting Software PSE will assist in selection, purchase, and set-up of resource accounting software and support annual maintenance fees if the Customer agrees to maintain the system and provide annual consumption reports.
- Initial Cash Incentive For qualifying organizations, PSE will pay a cash incentive determined as a percentage of the typical RCM salary to help get the program started with initial set-up of utility database and program organization. PSE will fund 35 percent of the time spent on establishing the RCM program during the first year provided the Customer completes the database set-up, develops a resource management plan and outlines facility action plans for their buildings. Customers receive support tailored to their needs, including staff training, technical assistance, interval metering, salary guarantees, site-based incentives, and other services.
- Performance-Based Incentives PSE may provide cash incentives to Customers who achieve a pre-established targeted amount of energy savings relating to occupant and behavioral practices and improvements in operational and maintenance (O&M) practices. Energy savings targets will be based on a typical 5 percent reduction from a 12-month baseline and actual savings will be calculated and verified by PSE staff as described below. Incentive amounts will meet the current commercial and industrial program cost-effective criteria.
- Site-Based Incentives PSE may award cash incentives directly to a Customer for implementation of verifiable behavioral changes by building occupants, maintenance and custodial staff members.
- Salary Guarantee For Customers with a full-time equivalent energy baseline, PSE will provide a salary guarantee that the Customers' total resource bill savings achieved by RCM activities relating to occupant and behavioral practices and improvements in operational and maintenance (O&M) practices exceed the salary of the RCM. If not, the difference will be paid to the Customer up to the value of the natural gas and electrical savings achieved, as determined by weather corrected reduction of the Customer's utility bills or by single Measure calculations agreed to by PSE.

#### Marketing Plan

PSE recruits participants through direct contact with administrators of school districts, colleges, municipalities, corporations, etc. Program awareness is also increased by contacts at trade associations and professional organizations, through partnerships with other utilities, and using exhibits at seminars, workshops, and expositions. Interest in the RCM concept continues to grow around the region and nationwide as the program becomes recognized as an effective way to reduce operating costs

Interaction with C/I incentive programs provides both a source of leads for RCM marketing as well as a source of potential projects for retrofit and rebate Measures identified through RCM activities.

## Small Business Lighting Rebates

Schedule E255

## Purpose

The purpose of the Small Business Lighting program is to provide a menu of lighting retrofit rebate options that meet the needs of most small business Customers and to maintain a network of lighting contractors and vendors that effectively serve small businesses.

## Description

The Small Business Lighting program provides a menu of lighting retrofit rebate options that meet the needs of most small business Customers and maintains a network of lighting contractors and vendors that effectively serve small businesses. Eligibility is limited to Schedule 24 and Schedule 8 electric Customers. Rebates cover a wide variety of efficient conversions for incandescent, fluorescent, high intensity discharge (HID), exit lights, and lighting controls.

## Target Market

Eligibility is limited to Schedule 24 and Schedule 8 electric Customers (i.e. electrical demand less than 50 kW per month).

## **Customer Incentives Overview**

Rebates cover over a dozen efficient incandescent and fluorescent lighting conversions. Lighting controls rebates are also available through the Commercial and Industrial Incentives Program that is available for any size commercial or industrial Customer.

Incentives are set at levels slightly above the custom grant under the electric/gas Commercial and Industrial Retrofit Program in order to:

- Better serve this hard to reach market segment
- Capture the small business manager's attention in an environment where many different projects compete for the manager's time.
- Cover a high percentage of the material cost for in-house (materials-only) installations.
- Enable contractors to achieve a sufficiently high sales closure rate to sustain interest in the program.
- Measures not listed on the Eligible Rebate Measures form may receive an incentive under the "Custom Analysis" line item on the rebate form.
- Custom Site-Specific Basis grants will be based on the Company's costeffectiveness standard. Grants for projects are made available as a percent of the Measure cost as outlined in the electric/gas Commercial/Industrial Retrofit program.

A list of all requirements for eligibility and participation can be found on individual program application forms. Applicable Small Business Lighting Measure category headings include, but are not limited to:

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- Incandescent lamps & Fixtures and Exit Sign Replacements
- Higher Wattage Incandescent & HID, Retrofits & Fixtures
- 4' & 8' Fluorescents various

Measure incentive eligibility criteria are based on, but not limited to, established, industry-standard cost effectiveness tests, structure type and its location within PSE service territory, fuel type (gas or electric), product type and product quantity. A detailed list of Energy Efficiency Service Measures, Incentive and Eligibility are available in Exhibit 4 of the 2011 Annual Conservation Plan.

## Marketing Plan

Marketing efforts are based on consideration of specific market sub-segments, Customer decision making, market penetration estimates and PSE engagement with participating and non-participating lighting contractors.

Marketing will be conducted via some combination of the following:

- Energy Advisors, lighting contractors and vendors, and program administrators provide outreach and information for the program.
- Case studies, press releases, general-interest articles in local publications and Puget Sound Energy's e-newsletter for business Customers.
- Promotion via brochures, bill inserts and PSE.com
- Cooperative promotion through Community Outreach & Education events
- Cooperative promotion through Community Outreach & Education engagements with municipalities and community organizations
- Event participation, sponsorship and/or announcements in Small Business Associations such as Chamber of Commerce, Retailers Associations and others

## LED Traffic Signals

Schedule E257

#### Purpose

The purpose of the LED Traffic Signal program is to increase replacement of existing traffic lights with energy-efficient LED traffic lights.

## Description

The program educates public-sector Customers with traffic control authority (cities, counties, and DOT's) on the benefits of installing red, green and yellow 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. New installations are not eligible for an incentive as the LED traffic lights are required by code.

## Target Market

The program targets public sector Customers with traffic control authority (e.g., cities, counties, DoT's).

## **Customer Incentives Overview**

Applicable LED Traffic Signal Measure category headings include, but are not limited to:

- RED & GREEN : Thru, Arrow and Walk Signal
- YELLOW: Eligible when bundled as part of a comprehensive replacement

A list of all requirements for eligibility and participation can be found on individual program application forms.

Measure incentive eligibility criteria are based on, but not limited to, established, industry-standard cost effectiveness tests, structure type and its location within PSE service territory, fuel type (gas or electric), product type and product quantity. A detailed list of Energy Efficiency Service Measures, Incentive and Eligibility are included as an Attachment to this Annual Conservation Plan as Exhibit 4.

# **Marketing Plan**

Marketing efforts are based on consideration of specific market segments. Marketing will be conducted via some combination of the following:

- PSE will continue to partner with the Association of Washington Cities.
- PSE will send direct mailings, and make personal contacts with Customers to promote the program.

## Large Power User/Self Directed

Schedule E258

## Purpose

The purpose of this program is to acquire cost-effective energy savings from large Commercial and Industrial (C/I) Customers by providing incentives that support self-directed energy efficiency projects that the Customers themselves propose.

## Description

This program solicits electric energy efficiency upgrades through a Request for Proposal (RFP) process. C/I Customers receiving electric service under Schedule 40, 46, 49 or 449 receive a funding allocation based on their electric usage and are responsible for proposing cost-effective project(s) to utilize their allocation. This is classified as the non-competitive phase.

Proposals are evaluated by PSE engineering staff for technical soundness, costeffectiveness and compliance with energy code and tariff requirements. Customers sign a standard PSE Conservation Grant Agreement, defining project cost, PSE incentive amount, and verification requirements prior to installation of project Measures.

The Large Power User Self-Directed program is implemented in cycles, with the current program cycle spanning January 1, 2010 to December 31, 2014. Customers have until March 29, 2013 to propose projects that utilize their incentive allocations under the non-competitive phase. Customers not designating projects that fully utilize their allocation forfeit their remaining balance to a competitive phase, in which remaining funds are available to all program participants via competitive bid.

In the Competitive Phase, Eligible Customers respond to an RFP in order to obtain remaining incentive funding that was not claimed during the non-competitive phase. In this phase, eligible customers may have access to funds beyond their original allocation. All projects submitted by the required deadline will be ranked based on cost effectiveness. Competitive funding will be awarded, in order of project ranking, until all funds are allocated to projects.

## **Target Market**

C/I Customers receiving electric service under Schedule 40, 46, 49, 448, 449, 458 or 459 are eligible to participate in this program.

# **Customer Incentives Overview**

The incentive budget for eligible Customers will be the Electric Conservation Rider revenues less deductions made for the Company's administrative program costs (7½ percent) and for the Northwest Energy Efficiency Alliance (NEEA) budget line item (10 percent). During the current program cycle, incentive allocations for Customers receiving service under Schedules 40, 46 and 49 will be reduced for collection of administrative program costs and Northwest Energy Efficiency Alliance (NEEA) budget line item costs that were not collected in the previous program cycle. The total Electric Conservation Rider revenue amount and

Customer allocation will be determined by the Company's State Regulatory and Cost of Service Department.

Energy efficiency Measures will be subjected to the Company's Total Resource Cost Test to determine the grant amount to be paid. The incentive amount is the lesser of the Total Measure Cost, \$0.50 per annual kWh savings, or the Customer's remaining incentive allocation, subject to PSE Cost Effectiveness Standards.

Customers receiving service under Schedules 40, 46 or 49 shall be required to first utilize their designated Schedule 258 allocation for these incentives prior to receiving funding from other programs, with the exception of programs requiring multi-year contracts. Customers receiving service under Schedules 448, 449, 458 or 459 must use their Schedule 258 allocation for these incentives and cannot receive funding from other programs.

When the incentive is limited by the remaining allocation balance, Schedule 40, 46 and 49 Customers may apply for incentives from another conservation program to supplement the Schedule 258 incentive, up to the maximum allowed by the other conservation program.

Measure incentive eligibility criteria are based on, but not limited to, established, industry-standard cost effectiveness tests, structure type and its location within PSE service territory, product type and product quantity. A detailed list of Energy Efficiency Service Measures, Incentive and Eligibility are available as Exhibit 4 of this 2011 Annual Conservation Plan.

## **Marketing Plan**

Effort will be made to ensure that eligible Customers have every opportunity to take advantage of the incentive allocation available to them. If it becomes evident early in the program duration that some Customers are having difficulty initiating the program process, the Company will offer to provide extra assistance to identify projects and perform any required follow-through.

## **Commercial Rebates**

Schedules E262/G262

## Purpose

The purpose of the Commercial and Industrial Incentive program is to expedite the installation of specific electric and gas efficiency Measures in commercial buildings and to streamline commercial and industrial retrofit program administrative costs by offering Prescriptive Basis incentives with standard savings values to our commercial and industrial Customers.

## 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. Measure categories include, but are not limited to, the following:

- High Efficiency HVAC
- Variable Speed Drives
- Electronically Commutated Motors (ECMs)
- Controls
- NEMA Premium Efficiency Motors
- Premium HVAC Program, gas and electric
- Commercial Washers, gas and electric
- Commercial Laundry Water Heating
- Commercial Kitchens, gas and electric
- Refrigerator, Freezer Cool Rebates
- Lighting Control Rebates
- LED Exit Signs

The Program Manager and Administrative Specialist collect tracking data, monitor program performance, and report results and trends. The Program Manager works with equipment suppliers/vendors and this program is coordinated closely with the electric and gas Commercial and Industrial Retrofit Program.

Program refinements and cost-effectiveness are reviewed with engineering staff and the C/I manager as necessary on an ongoing basis. Incentive Measures, marketing and the fulfillment process may be modified, as needed, to respond to developments in technology, Customer acceptance and/or changes in supplier/contractor delivery and pricing.

## Target Market

Rebate Measures are targeted to appropriate commercial markets, including but not limited to: Large Office, Small Office, Large Retail, Small and Specialty Retail, Restaurants, Commercial Laundries, Hotels/Lodging, Groceries, Convenience Stores, Hospitals, HealthCare/ Assisted Living, Schools and Property Management.

Schedule 448, 449, 458, and 459 Customers may utilize their Schedule 258 funding allocation for Measures and incentive amounts offered under this program.

#### **Customer Incentives Overview**

In most cases, incentives are a flat dollar amount, usually for a "Measure" or "device" that is a "stand alone" unit. Customers can generally select from among qualifying models (e.g. washing machines) or the product may be unique in the marketplace (e.g. single manufacturer for vending machine controllers). In other cases, rebates are a flat amount per "unit size" of the Measure, where unit size may be "per ton" or "per horsepower". In several cases, PSE has worked with consultants on studies to develop incentives tied to square feet of conditioned space, because energy savings depend on the size of the building more heavily than the size of the equipment. For example, ECM Motors are rebated per square foot of conditioned space.

For Measures with a flat rebate per unit amount, PSE uses regionally or nationally accepted energy savings estimates. Where not readily available, incremental costs are based on best determination of the "incremental" cost of the Measure; that is the additional cost above a standard installation using a less efficient model. PSE monitors "incremental" cost in the marketplace and will adjust rebates as these costs change.

A list of all requirements for eligibility and participation can be found on individual program application forms.

Measure incentive eligibility criteria are based on, but not limited to, established, industry-standard cost effectiveness tests, structure type and its location within PSE service territory, fuel type (gas or electric), product type and product quantity. A detailed list of Energy Efficiency Service Measures, Incentive and Eligibility are included as an Attachment to this 2011 Annual Conservation Plan as Exhibit 4.

#### Marketing Plan

Marketing efforts are based on consideration of specific market sub-segments, Customer decision making, market penetration estimates and PSE engagement with relevant Customer and trade groups. Marketing will be conducted via some combination of the following:

- Energy Advisors, selected contractors, supply houses, vendors, retailers and program administrators provide outreach and information for the program.
- Case studies, press releases, general-interest articles in local publications and Puget Sound Energy's e-newsletter for business Customers.
- Promotion via brochures, bill inserts and PSE.com
- Cooperative promotion through Community Outreach & Education events
- Cooperative promotion through Community Outreach & Education engagements with municipalities and community organizations
- Event participation, sponsorship and/or announcements in Business and Customer Associations such as BOMA, WAMOA, Washington Restaurant Association and others.
- Cooperative advertising with Manufacturers to promote PSE rebates
- Cooperative promotion with water utilities for water-savings Measures

# **REGIONAL PROGRAMS**

2011

## Northwest Energy Efficiency Alliance

Schedule E254

# Description

This report summarizes the planned 2011 activities and expected regulatory/compliance interaction by the Northwest Energy Efficiency Alliance (NEEA) in the service areas of Puget Sound Energy from January 1 – December 31, 2011.

NEEA is a non-profit organization working to accelerate the innovation and adoption of energy-efficient products, services and practices in the Northwest. As a partner with NEEA, Puget Sound Energy contributes funding for regional energy efficiency initiatives, actively participates on NEEA's Board of Directors and advisory committees, and supports various related initiatives in the Puget Sound Energy service area.

The NEEA 2010-2014 Business Plan, adopted in 2009, focuses on creating lasting change in energy efficiency in the Northwest through strong partnerships with the region's utilities and market actors. The business plan was informed by the NEEA 2010 – 2014 Strategic Plan, developed through a participatory year-long strategic planning process with the NEEA Board and region as a whole. The Business Plan has a five-year total regional savings goal of 200 aMW. Further information about NEEA's history, structure, initiatives and press is available on <u>NEEA's website</u>.

NEEA received \$192 million in funding for 2010 – 2014 market transformation initiatives from Northwest utilities including the Bonneville Power Administration (BPA) (on behalf of more than 130 utilities), Puget Sound Energy, Energy Trust of Oregon, Idaho Power, Avista Corporation, PacifiCorp, Seattle City Light, Tacoma Power, Snohomish County PUD and others.

# **2011 Activities**

We are pleased to share our market transformation upcoming work for 2011 in the areas of residential, industrial, commercial, emerging technologies, codes and standards and partner services.

#### **Residential Initiatives**

NEEA's residential work supports and maintains regional upstream delivery platforms for energy-efficient products and services. NEEA's unique regional role leverages resources to influence the market through collaboration. To remove market barriers to distribution and use of energy-efficient solutions, NEEA collaborates with utilities, builders, manufacturers, large and small retailers and dealer networks to fill the pipeline with highly energy-efficient products, services and practices.

1. NEEA will accelerate the market adoption of energy-efficient homes by builders, the real estate community and homebuyers through the Northwest ENERGY STAR Homes initiative.

- 2. NEEA's Northwest Ductless Heat Pump Pilot project will accelerate market adoption of ductless heat pumps (DHPs) to displace electric resistance heat in the Northwest. NEEA is continuing to conduct an evaluation to assess cost, energy savings potential and non-energy benefits associated with this technology. The Project partners with market actors to increase the market's capability to deliver residential ductless heat pumps. With the potential for approximately one million installations in the Northwest, DHPs will result in significant long-term savings.
- 3. The NEEA Consumer Electronics initiative will increase the market share of energyefficient retail electronics within the Northwest. NEEA is working with major "big box" retailers to reward sales of highly-efficient TVs, computers and monitors—including ENERGY STAR version 5.0 TVs—two years before the spec goes into effect. NEEA has initiated "upstream" incentive plans for retailers to participate in its 2011 Consumer Electronics initiative. To raise the bar on TV standards, NEEA actively participates in national initiatives to raise voluntary specifications and standards for consumer electronics, as described within the Codes and Standards section of this report.

#### Industrial Initiatives

In 2011, NEEA will work to ensure the industry-wide goals are met working with regional stakeholders to advance best practices. NEEA will continue to develop and promote Continuous Energy Improvement (CEI) as a widely-accessible energy efficiency methodology and validated energy savings. NEEA will deliver targeted industrial training to empower employees with the energy expertise to accelerate and sustain energy improvement opportunities uncovered by earlier CEI work.

#### **Commercial Initiatives**

NEEA's commercial initiatives have been updated. NEEA regularly monitors and reviews its initiatives to ensure they are meeting business plan objectives and to identify opportunities for course corrections. NEEA concluded that it needed to make modifications to its commercial sector portfolio.

NEEA's work over the past decade in integrated design, high performance buildings, system optimization, and strategic energy management through its BetterBricks initiative have helped to transform commercial sector building and management, however, some of the energy savings associated with NEEA's efforts proved difficult to Measure. Moving forward, the commercial sector is focusing on cost-effective initiatives that accelerate more Measureable market transformation, while filling the energy efficiency pipeline with next generation opportunities to achieve significant regional savings."

NEEA recently completed a stakeholder engagement process as it revised its commercial sector portfolio. Out of this process has come a refined commercial portfolio, which includes the following three new initiatives:

- **Existing Building Renewal:** NEEA will work with commercial market actors to accelerate the energy-efficient renovation of the 98 percent of commercial building stock that is not naturally replaced each year.
- **Commercial Lighting Templates:** NEEA will work with trade associations to equip them with the resources to offer more energy-efficient lighting design

solutions and services to professionals within the market who are not employing the services of professional architects and engineers.

• **Business IT:** NEEA will engage with decision makers on both the supply and demand sides to increase the efficiency of IT products and services within commercial building environments.

In addition to these three new initiatives, NEEA will also be making modifications to its Commercial Real Estate, Healthcare, New Construction and Building Operations initiatives. Part of these modifications includes working with utility and market partners to develop a transition strategy for NEEA's healthcare initiative over the next three years. NEEA has completed a substantial amount of market transformation work in the hospital market and is confident that market conditions, combined with a transition plan, will result in continued market transformation. M

#### **Emerging Technologies Initiatives**

NEEA provides a mechanism for the region to invest in emerging technologies in a way that minimizes risks to any single funder and maximizes potential benefits. NEEA "fills the pipeline" with emerging technologies that have not yet been widely commercialized. We leverage our unique regional role to influence the design of energy-efficient products, services and practices. We find, develop and help commercialize these opportunities for wider market adoption.

NEEA has worked with its an Emerging Technologies stakeholder group to develop a roadmap that prioritizes top emerging technology opportunities and will provide an avenue for their visibility, funding and market adoption. NEEA's Emerging Technologies project portfolio represents potential savings of 2,000 aMW over the next 20 years. <u>More information on these projects</u>.

#### **Partner Services Initiatives**

NEEA is delivering services that support its utility funders and regional stakeholders' energy efficiency efforts. Throughout NEEA's 2010-2014 business planning process and other recent regional planning activities, stakeholders consistently expressed the desire for greater communication, collaboration and resources that would help the region expedite the delivery and adoption of energy efficiency.

NEEA will support the region's utilities and other energy efficiency organizations to promote energy efficiency through market research, collaboration and information sharing.

These initiatives will help increase the efficiency of stakeholder efforts by taking advantage of economies of scale associated with regional information services, events and training; provide services for utilities with fewer resources to deliver on the promise of regional equity; and provide a mechanism for the region to share information and accelerate learning.

#### Codes & Standards Initiatives

Since 1997, NEEA has supported code development, training, and education in Washington in partnership with the Department of Commerce, the WSU Energy Extension Program and the Northwest Energy Efficiency Council. Codes and standards can be viewed as the end game of NEEA's market transformation effort by "locking in" savings through regulatory requirements. NEEA will continue ramping up codes and standards work to reflect increased utility and state interest related to I-937, SB5854 and the governor's Climate Action Taskforce. Activities and outcomes for the reporting period follow.

#### **Evaluation Activities and Accomplishments**

NEEA is committed to having both its current and past initiatives evaluated by objective third party contractors in order to continuously validate and improve its market transformation work.

#### Regulatory / Compliance Interaction

NEEA is committed to serving its regional stakeholders across diverse geographic areas and markets. We encourage stakeholder participation in our processes. In 2011, interaction is invited and encouraged at:

- NEEA Board Meetings
- NEEA Advisory Committees and public meetings
- Energy Efficient Events facilitated by NEEA and regional utilities, including Puget Sound Energy
- WUTC Commissioners workshops as requested
- Washington State Building Code Council as requested

#### Additional Information

Along with abundant news on energy efficiency initiatives in the region, NEEA organizational reports are available online. See the <u>Q1 2010 Report</u> and <u>2006-2009</u> <u>Annual Reports.</u>

The NEEA Board of Directors will meet December 10<sup>th</sup>, 2010 in Portland, Oregon. Please contact Lis Saunders at 503-827-8416 for meeting time and location details.

Questions or comments on this report? Please contact Aaron Cohen, Sr. Manager of Corporate Communications, <u>acohen@neea.org</u>

Customers may participate in and benefit from NEEA sponsored initiatives directly or indirectly. In the case of consumer electronics, NEEA provides rebates to retailers who direct Customers to flat screen televisions which exceed Energy Star® standards. This would be considered an indirect Customer initiative. Customers purchasing qualifying<sup>6</sup> ductless heat pumps, though, receive a cash incentive from the Company. Most NEEA initiatives, being aimed at market transformation, are not readily apparent to Customers as NEEA-specific.

Detailed information on NEEA history, structure, funding, projects, reports, pressreleases, proposals and more is available at NEEA's web site: www.nwalliance.org

## **Cost Effectiveness Verification**

The Company conducts independent cost effectiveness calculations on NEEAsponsored Measures to ensure accuracy.

To prevent potential double-counting of savings, the Company met with a sub-committee of the CRAG, including WUTC staff and Public Counsel, as well as representatives from NEEA in 2008. This sub-committee developed criteria to be used to ensure that NEEA incremental annual savings are counted appropriately. The criteria mitigate the risk of double counting savings that may be included in the baseline for PSE's IRP.

NEEA reports PSE's share of regional savings as Net Market Effects.

Net Market Effects = Total Regional Savings – Baseline – Local Utility Incentives

<sup>&</sup>lt;sup>6</sup> A list of ductless heat pumps that are a part of the NEEA study is maintained by the Company.

# SUPPORT ACTIVITIES

2011

## Community Efficiency Manager

Schedules E241/G241

## Purpose

Provide grants to support eligible communities' energy efficiency efforts within the PSE service territory through the efforts of an Energy Efficiency Services' community energy manager.

# Description

The community energy manager is similar to a resource conservation manager described in Schedule 253—in that they will identify systems and applications that are in need of energy efficiency improvements. The community energy manager is an employee of the community, funded through the American Recovery and Reinvestment Act or other available sources. A CEM could, through meetings and other forms of outreach, drive local businesses and residents to PSE energy efficiency programs. Furthermore, by following up with clients who have received PSE Energy Efficiency services (such as a residential HomePrint audit or a small business assessment) they could increase actual Measure implementation in their respective communities.

Responsibilities may include but are not limited to:

- Work with local businesses, residents, and municipal entities to implement PSE's rebates and programs
- Assist with Green Business recognition program development
- Coordinate between community agencies, governments, and non-profits to provide a comprehensive menu of efficiency services and programs for varied target audiences
- Work with local low income agency to promote Low Income Weatherization
- Enlist and support existing non-profit organizations to include energy efficiency in their program offerings
- Support, promote, and/or organize local volunteer efforts relating to efficiency (example: PSE's CFL door-to-door bulb distribution)
- Facilitate relationships between local contractors who do energy efficiency retrofits and interested parties.

## Target Market

PSE will issue an RFP which includes criteria to ensure that the grants are used to leverage other EES programs. Criteria will include size of community, geographic location, ability to fund the remaining amount, ability to hire a local Community Energy Manager with the proper skills, other energy efficiency initiatives already implemented and more.

## Energy Efficient Technology Evaluation

Schedules E261/G261

# **Technology Evaluation**

The purpose of Energy Efficiency Technology Evaluation is to identify new, energy efficient technologies and products for our program offerings. Ideally, we would identify cost effective technologies and Measures with significant savings potential, which are commercially available. However, there are many emerging technologies that range from "commercially available, but not used in the Northwest," to "conceptual" or "prototypical" technologies still in the development phase.

It is relatively simple to determine whether new, commercially available technologies are suitable, as long as generally accepted engineering calculations can be used, and manufacturers can provide reliable data. For example, vendors frequently approach us with new, improved products, claimed to save more energy than their older models, or their competition. Usually these proposals are evaluated by the Energy Management Engineer who is managing the project, who then shares his/her experience with others in the group.

Some technologies are not so simple to evaluate. Those that are truly new typically have little experiential history, or there is no generally accepted method to calculate the performance. Clearly, it would be risky to broadly offer incentives through our programs - risky with regard to uncertain savings and risky for our Customers due to unforeseen product issues. If the potential savings look significant, we may try the technology on one or two projects, especially if we are working with a Customer who understands the risks and would like to be an "early adopter." Sometimes the most prudent approach is to monitor the progress of the technology, especially if the savings potential appears limited. Our effort is not intended for basic research, or product development, but to identify technologies that are available and suitable for our programs.

The most challenging situations arise when vendors propose products that are "too good to be true." Often their savings claims are supported by testimonials from satisfied Customers, with little or no reliable test data. Many technologies, such as transient voltage suppressors, power factor correction devices and paint with high R-Value, have been known for years to save little or no energy, but the vendor may insist that his product is different, even though it may only have a different name on the box. Fortunately we have experience with many of these products, or can readily find others who have had experience. It is important, however, to distinguish between the bogus claims and those that might truly be the new emerging technology that deserves attention.

## Local Infrastructure & Market Transformation

Schedules E270/G270

## Purpose

Provide education, and/or services to develop long term energy-efficiency products and practices, which are designed to achieve long term kilowatt-hour (kWh) savings benefits for Customers receiving electrical service. Conduct research in support of developing new conservation Measures and programs.

## Description

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. Measures primarily deal with education and information about energy efficiency and Puget Sound Energy's energy efficiency services. These can include participation in conferences and energy efficiency trade shows aimed at reaching a broad array of Customers and trade allies. Similar to but narrower than Program Support, the Local Infrastructure and Market Transformation budget line item gives visibility to the annual membership dues PSE pays to trade associations and research organizations who support ongoing development and implementation of the wide variety of both Residential and Business energy management programs. There are no other substantive charges to this line item.

## Target Market

The company may provide financial support for energy efficiency activities available to, or projects designed to benefit Puget Sound Energy's Customers, undertaken by local energy efficiency organizations, including activities designed to leverage NEEA-funded projects in the Company's local service territory.

## **Energy Efficient Communities**

No Associated Conservation Schedule

## Purpose

Develop a new channel for increased participation in PSE's Energy Efficiency programs through direct contact with governments and community stakeholders. The program works with PSE's communities to identify and engage with underserved populations and leverage community resources to increase Energy Efficiency Services (EES) program participation.

## Description

Puget Sound Energy's Energy Efficient Communities (EEC) program aims to increase participation in PSE's Energy Efficiency programs by linking up local governments with EES programs to increase efficiency in their facilities, their residents' homes and their businesses. The program partners with cities, counties and other community entities to discover locally-appropriate ways of engaging the communities by leveraging PSE's resources, community knowledge and partner support.

With communities taking responsibility for their energy usage and carbon emissions, they are looking to partner with PSE expertise. There is great emphasis on energy efficiency in the American Recovery and Reinvestment Act of 2009 with local governments receiving funds for said purpose. PSE is working with its communities to help them utilize their Federal stimulus dollars to work in tandem with PSE's programs. With local governments directly receiving these funds, there is ample opportunity to create new delivery mechanisms that can utilize a Federal resource to make PSE's programs go further with our Customers and achieve more savings.

## Target Markets

PSE's Energy Efficient Communities Program will have staff located in regional offices to provide an improved connection to the multiple community stakeholders that Energy Efficiency serves throughout the service area.

Energy Efficient Communities will also work closely with the Business Energy Management team to reach out to the underserved small business population to deliver consistent programs throughout the service area.

## Mainstreaming Green and Market Integration

No Associated Conservation Schedule

## Purpose

Meeting PSE's aggressive 2010-2011 Energy Efficiency targets will require convincing broad consumer audiences of why they need to actively participate in Energy Efficiency programs and then how they can get involved. We will continue to market to our traditional audience of "early adopters," but this segment is not large enough by itself to provide the energy savings needed to meet our new targets.

## Description

The Mainstreaming Green and Market Integration initiatives are designed to significantly improve the ability of the Energy Efficiency effort to communicate the "Why and How" of energy efficiency. This is being accomplished in two ways:

1. Mainstreaming Green consists of unified graphic standards, research and the initiative to make the PSE Energy Efficiency web tools effective in delivering electricity and gas savings, especially as we progress toward anticipated higher targets in the future. Research has shown that PSE Customers are more web-savvy than average and have high expectations of doing business on the web. The web enhancement plan under Mainstreaming Green is designed to provide significant new tools for Customers to be able to do this.

Specifically, the new web tools will fully-integrate and more effectively organize online messaging, merchandising and the ability to up-sell energy-efficiency products and services to PSE's residential and business Customer base, community partners and trade allies. This site will also allow for on-line, self-service Customer rebate and application transactions. The new capability includes:

- Fillable rebate application forms, sign-up forms and info request forms
- Searchable retailer, contractor, etc. lists and maps, by zip, city, etc.
- Interactive house, featuring dynamic rebate and promotion information
- Easy to use, more sophisticated navigation
- Integrated Aclara home and business energy use calculators
- Content ratings and content merchandising functions
- Newsfeed and featured blog content and integrated social media tools

The updated features within the energy efficiency section of the website will help EES to capitalize on advanced online marketing opportunities not currently available within PSE's current web environment. Dynamic, energy efficiency-identified content pages and features will also eventually allow EES to Measure, track and quantify Customer browsing and buying preferences and energy usage, in order to provide targeted, relevant information and education about energy efficiency and Customer renewables, using a variety of analytical tools.

2. The second component of Mainstreaming Green involves research, Re-Energize umbrella graphic standards and outreach. The Re-Energize graphic standards are designed to make all PSE Energy Efficiency promotions consistent so all programs can better leverage the attention other programs generate with Customers. This results in doors being opened more easily when new program promotions are put before Customers. The Re-Energize graphic standards are now being utilized on program promotions.

Originally, the outreach component of Mainstreaming Green anticipated the need for paid advertising to generate additional Customer attention for energy efficiency and establish the Re-Energize umbrella in the minds of PSE Customers so Customers would be familiar with it when follow-on promotions arrived. The paid advertising component has been cancelled because federal stimulus funding and the overall economic downturn have significantly increased Customer interest in energy efficiency, negating the need for an incremental PSE effort to get Customers' attention.

Research was utilized in the development of the web and the Re-Energize components of Mainstreaming Green and was utilized to test the Re-Energize final product before it was implemented.

#### Market Integration

The Market Integration initiative consists of salary costs of employees working on Mainstreaming Green-related items. This is being done to increase the transparency of the work being done on marketing-related items. These include the enhancement of the energy efficiency web capability and the Re-Energize effort.

#### **Marketing Plan**

There is no marketing plan uniquely prescribed for Mainstream Green. Its branding platform "Re-Energize" is an integrated messaging and positioning system that carries all program offerings.

# **Conservation Market Research and Conservation Supply Curves**

No Associated Conservation Schedule

## **Objectives**

Conduct a variety of research studies and analyses to support the energy efficiency portions of the Company's Integrated Resource Plan, program design and savings targets, and development of effective program promotion and Customer communications.

# Description

#### Market Research

The focus of the EES Conservation Market Research function is on acquiring information about Customer characteristics, attitudes and perceptions about PSE's energy efficiency initiatives to enhance Customer adoption of energy-saving Measures and behaviors. We collect and analyze information about Customers that is relevant for the development of programs, educational materials, and promotional campaigns that will be effective in encouraging program participation.

Through various techniques such as surveys and focus groups, market research provides understanding of Customer perceptions, motivations and barriers to adoption of energy-efficient behavior, as well as demographic, structural, and end use equipment characteristics. Market research is also called upon for analysis of community characteristics, attitudes, behavior, and energy usage trends, necessitating more geographically targeted research. Market research expenses are driven by the customized nature of the work and the large sample sizes required in quantitative studies for results to be valid for multiple market segments and geographic areas.

The market research staff works closely with program evaluation, marketing communications, and program implementation staff to identify research needs that support the effective development, delivery, and evaluation of energy efficiency programs. These research needs are then coordinated and leveraged to result in a slate of research projects that are responsive to internal client needs, eliminate duplication of effort, and are cost-efficient.

PSE's conservation market research activities are divided into two basic components:

Baseline Research for Program Design and Promotional Campaign Development: This research provides basic, foundational information about PSE Customers that will be used as input to the Company's Integrated Resource Plan, as well as for the planning and design of programs and promotional campaigns. Examples of this research are end use characteristics studies and research aimed at understanding Customer decision-making with respect to taking energy efficiency actions.

<u>Program-Specific Market Research Support</u>: This research supports the development and evaluation of specific energy efficiency program promotion and communications campaigns, including message testing, campaign target markets, and campaign effectiveness studies, as appropriate. This type of research is

focused on specific programs or promotional initiatives and often involves analysis of existing databases and qualitative research from focus groups.

## **Conservation Supply Curve**

The Conservation Supply Curve function focuses on identifying the amount of energy savings potential that is technically and economically achievable over the 20-year planning horizon of PSE's Integrated Resource Plan (IRP). The IRP, which is filed every two years, is the basis for PSE's electric and gas energy resource acquisition strategy, as well as the targets for our energy efficiency programs. The IRP analysis may also be used to derive the ten-year conservation potential and two year electric conservation target required to comply with the Washington Energy Independence Act (commonly referred to as I-937).

PSE's next IRP and conservation potential assessment are due in 2011. The Company will conduct an assessment of the long-term market potential for energy savings from energy efficiency and other demand-side resources, covering the twenty year period 2012-2031. This analysis will be a key component is establishing program savings targets for 2012-2013.

# Program Support

## Description

Program Support is not listed in Appendix A because it is not a "program" in the conventional sense. This function includes management and support activities necessary for the strategic and tactical execution of the wide variety of both Residential and Business programs.

The Program Support budget includes labor costs by New Program Development and some Evaluation staff responsible for supporting, developing and improving program delivery processes in Customer Energy Management.

Typical functions include internal and external review, adoption/rejection, development and integration of: new EE industry research, end-use technologies and applications; pre-pilot program proposals; construction codes; equipment standards; software and similar tools applications. Other examples include: support for biennial and strategic program planning; participation in regional initiatives and organizations including RTF, NWRG and NEEA; assessment, documentation, development and implementation of Measurement & verification and quality assurance/quality control protocols and methodologies; coordinating IRP DSM RFP and related development and bidding activity; and managing program benchmarking studies, best practices, continuous improvement and related support activities.

Labor charges to this line item are budgeted for an increase in 2011 due to stepped-up attention to Measurement & verification work, and to assure that regional and other unrelated support functions performed by Evaluation staff are not inappropriately charged to PSE Program Evaluation budgets. Stepped-up usage of the Program Support budget in 2011 has also led to creation of a Gas tracking category so support costs can be budgeted, managed and tracked appropriately by both Electric and Gas fuel types.

# Program Evaluation

## Description

The EES New Program Development and Evaluation Team are committed to the verification of claimed energy savings and the continual improvement of energy efficiency service delivery to Customers. The Evaluation Team validates the cost effectiveness of both Residential and Business programs. Utility Cost and Total Resource Cost benefit-to-cost ratios are the two primary cost-effectiveness tests performed.

Evaluation staff manage the evaluation of programs and Measures with input from program staff to develop evaluation plans, including evaluation criteria, accumulation of Customer data, conducting Customer surveys performing other evaluation methodologies and making program recommendations. These include savings claim figures, delivery methods, incentive levels and actual savings verification. Evaluation staff also develop and maintain a strategic evaluation plan, ensuring that all programs receive review on cyclic basis. The 2011 Evaluation plan is shown in Exhibit 5.

The Evaluation staff is also closely engaged in the Measure Metrics process. Using the Evaluation Report Response (ERR), the Evaluation staff ensures that study results are implemented in the program. Once an evaluation study is complete, the findings are reviewed with the program staff, along with key recommendations. The program staff then complete their input on the ERR, indicating what actions will be taken as a result of the findings. This ensures a closed-loop system.

Key evaluation data are archived in the Measure Metrics system, such as Measure cost, Measure life, incentive value and delivery method. The Evaluation staff also tracks a Measure's "sunset date", which indicates that a particular Measure is due for a renewed review.

In addition, PSE is monitoring Regional Technical Forum (RTF) work on Commercial Refrigeration, and the Direct Use of Natural Gas. A member of the evaluation staff continues to serve on the RTF, attending meetings and providing input to RTF discussions. PSE relies on the RTF for many of its Deemed Measures. The RTF also practices the use of a sunset date for RTF approved Measures to ensure that Measures are updated within a reasonable timeframe. Care will be taken to assure that general staff time for RTF and other regional support organizations is charged to Program Support rather than PSE Program Evaluation budgets.

# **OTHER ELECTRIC PROGRAMS**

#### 2011

# Net Metering

Schedule E150

#### Purpose

To provide interconnection services for qualifying Customer-generators in accordance with State legislation enacted into law in February 11, 1999 and amended June 8, 2000 (see RCW 80.60).

## Description

PSE provides interconnection services to qualifying Customer generators who operate fuel cells, hydroelectric, solar or wind generators of no more that 100 kW. Service under this schedule is limited to a total of 11.2 MW of cumulative nameplate generating capacity, of which no less than 5.6 MW of cumulative nameplate generating capacity shall be attributable to net metering systems. Customer generation can be used to offset part or all of the Customer-generator's electricity use under Schedules 7, 8, 11, 12, 24, 25, 26 or 29 of Electric Tariff G.

At the time a Customer enrolls in the Net Metering program, they are also provided the necessary information to receive annual benefits from the Production Metering, or REAP, which is described in Schedule 151.

## Target Market

All Customers who are within the Company's service territory and receive electric service under terms of the Company's electric Tariff G.

## **Customer Incentives**

No direct Customer incentives are provided under this tariff. Energy produced by Customer generator systems directly reduces energy used in the home or business from the grid. When energy generated exceeds home or business electrical loads, the excess energy flowing to PSE is separately metered and credited to the Customer at the retail rate for future use. The program's year runs May 1 to April 30 of the following year through 2020. Any excess credit each month is rolled forward to the following month; however, when the new program year begins April 30, the credit is reset to zero.

#### 2011

## Production Metering

Schedule 151

## Purpose

To provide qualifying Customer-generators with production payments in accordance with State legislation SB 5101 and SB 6170 (see RCM 82.16).

## Description

Production Metering is operated in conjunction with, and in addition to, the Net Metering program. At the time a Customer enrolls in the Net Metering program, they are also provided the necessary information to receive annual benefits from Production Metering.

#### Target Market

All qualified net metered Customers, under terms of Schedule 150 and all qualifying Schedule 91 Customers.

#### **Customer Incentives**

Once a year Customers are paid for all power generated up to the \$5,000.00 cap per the State's Renewable Energy Cost Recovery Program. This payment ranges from \$0.12 to \$1.08 per kWh generated per state law. PSE is responsible for identifying the annual production and writing the annual payment to the Customer.

#### **Marketing Plan**

When Customers interconnect for net metering they are also encouraged to participate in the production metering program. PSE notifies the Customer and assists them with the annual paperwork process that is required by the state to receive a payment. PSE has a brochure for Customer Renewables used at various events.

The Energy Advisors provide basic information to Customers calling to inquire about renewable energy generation. Information on net metering is also accessible from the Home and Business Solutions global navigation header at PSE.com. Renewable energy businesses and organizations such as Solar Washington and Washington State University Energy Programs normally make Customers aware of the new metering program when they inquire about renewable energy generators.

# Renewable Energy Education

Schedule E248

#### Purpose

To provide grants for small scale renewable energy demonstration and education projects and to promote the acceptance of local energy development through brochures and displays.

#### Description

Small Scale Renewables, Schedule 248 was added to Schedule 120 funding when the Residential Exchange Credit was cancelled by the Ninth Circuit Court in May, 2007. The program provides grants for small scale renewable energy education demonstration projects which are tied in with both a curriculum and energy efficiency services at the location. The grants can pay for a turn-key system or focus on leveraging local participation by supporting additional Measures that will improve the educational benefit of the project.

The program also funds brochures and informational displays to encourage Customer understanding of renewable energy and its potential.

## Target Market

Primarily schools and other educational opportunities where the public will congregate.

#### **Customer Incentives**

The grants go directly to organizations such as school districts.

#### Marketing Plan

PSE will develop marketing materials which explain the alternatives available to Customers and promote the benefits of small scale renewables. Contractors and consultants will also be targeted with information including best practices and current regulations.

## 2011

# **Demand Response Pilots**

Schedule E249A

# Purpose

The Company is developing, conducting and evaluating demand response pilot programs. These small-scale, limited pilots recruit and enroll Customers on a voluntary basis. Incentive payments to Customers are offered to achieve participation and feedback. It is an Electricity Conservation Program tied to the provisions of Schedule 83, including the expiration date and with funding provided through the existing Electric Conservation Service Rider.

## Description

PSE's 2007 and 2009 Integrated Resource Plans (IRP) present achievable estimated demand response capacity potential for residential, commercial and industrial Customer sectors. Pilots under this schedule are being undertaken to strengthen the Company's ability to offer cost-effective demand response options to all Customer classes in the future. At the outset, some CRAG members expressed a preference for demand response pilots involving "direct load control" by the Company, as opposed to pilots which involve pricing signals to elicit demand response from consumers.

The Company's primary focus is to pilot direct load control events during times of high peak system loads, focusing on Customer information and communication, as well as the incentives needed for participants to respond. PSE has recently completed an evaluation of the commercial Load Control Pilot, and plans a similar Residential program evaluation in 2011. These evaluations have and will provide a thorough understanding of the programs, including direct feedback on all objectives outlined in Tariff 249a.

Attributes under evaluation include technologies, demand reduction performance, Customer behavior and preferences, impact and integration of demand response with PSE operations, demand reductions achieved, energy savings achieved, and local distribution system benefits derived.

# Target Market(s)

Residential Customers with electric space heat and water heat, and commercial and industrial Customers with discretionary lighting, HVAC and/or process electric end use loads have been recruited. Residential Customers served from targeted substation circuits, and having existing high speed home internet service, have been recruited.

## Marketing Plan

Both residential and commercial/industrial pilots are being delivered by experienced services providers specializing in direct load control program implementation. Both pilots are carried out by the service providers under contract according to specific PSE implementation criteria.

These contractors are working closely with PSE to recruit participants, install load control equipment and communications and deliver planned demand reduction from the

Customer facility or residence when either a winter or summer peak demand event is called by the utility

Direct response mailings, telephone and personal contacts through PSE Business Account Managers offer low cost, effective mechanisms for recruitment for these pilots.

## **Initial Pilots**

PSE's commercial Load Control Pilot (LCP) is a two-year limited demand response program for large commercial electric service Customers located throughout PSE service area. It became fully subscribed with 25 participating Customers in the spring of 2009, and is currently anticipated to end following the 2010/11 winter season. Total cost of the commercial/industrial pilot is estimated to be \$1.8 million.

PSE's residential Demand Response Pilot (DRP) is a two-year limited program targeting direct load control of electric space and water heat in 510 single family homes on Bainbridge Island. The DRP began with the 2009/2010 winter season, and is currently planned to end following the 2011 summer season. Total cost of the residential pilot is estimated to be \$2.1 million.