

# Energy Efficiency



## 2013 Semi-Annual Conservation Acquisition Report



**PUGET SOUND ENERGY**

*The Energy To Do Great Things*

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## List of Exhibits

- Exhibit 1: Expenditures and Savings
- Exhibit 1, Supplement 2: Savings adjustments
- Exhibit 9: Condition Compliance Checklist
- Exhibit 10: 2013 Q1 & Q2 NEEA Report

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## Executive Summary

### Overview

Puget Sound Energy presents this 2013 Semi-Annual Conservation Acquisition Report in compliance with condition (8)(e) of the Commission's Order 01, Docket number UE-111881.<sup>1</sup> The report is also consistent with the Second Supplemental Commission Order, Docket number UE-970686.<sup>2</sup>

PSE's Energy Efficiency organization is focused on maximizing customer satisfaction, improving our customer-oriented operations, and delivering cost-effective conservation by building on the outstanding 2012 results accomplished by our Energy Efficiency Staff. Table 1.1 provides the overall portfolio six-month savings and expenditure results.

**Table 1.1: Overall Six-month Energy Efficiency Results**

Jan. - Jun. 2013	Savings	Expenditures
<b>Electric (MWh)</b>	<b>137,100</b>	<b>\$41,363,000</b>
Goal/Budget	333,495 (38.1 aMW)	\$94,402,000
Percent of Goal	41.1%	43.8%
<b>Gas (Therm)</b>	<b>2,904,000</b>	<b>\$6,004,000</b>
Goal/Budget	4,618,000	\$13,185,000
Percent of Goal	62.9%	45.5%

137,100 MWh divided by 8,760 hours = 15.7 aMW  
Savings are stated in terms of first-year annual figures, at the customer meter, without line losses. Figures over 1,000,000 are rounded for reference simplicity.

<sup>1</sup> "[PSE must file the following:] (a) Semi-annual Conservation Acquisition Report, comparing budget to actual kWh's and dollar activity, by August 15, 2013 as specified in UE-970686."

<sup>2</sup> "(The Commission orders) That Puget Sound Energy is required to submit semi-annual reports on the progress of electricity conservation programs delivered under Schedule 83, Electricity Conservation Service, within 45 days of the end of the second and fourth quarters, until such time as the tariffed services are no longer offered."

## Saving and Expenditure Highlights

Half-way through 2013, Energy Efficiency is on track to meet or exceed the annual conservation goals of 333,495 MegaWatt hours (MWh), or 38.1 average MegaWatts (aMW), and 4.62 million therms that were approved by the Washington Utilities and Transportation Commission (UTC or Commission) in the 2013 Annual Conservation Plan.<sup>3</sup> It is anticipated that this will position PSE well to meet the Commission-approved biennial acquisition target of 666,000 MegaWatt hours (MWh).<sup>4</sup>

As of the end of June 2013, PSE achieved 41.1 percent of its electric savings goal and 62.9 percent of its natural gas savings goals, while electric expenditures are tracking well with savings achievement, at 43.8 percent of the \$94.4 million annual budget. Natural gas expenditures are 45.5 percent of the \$13.2 million annual budget. Relative to PSE's annual savings goals, it's important to note that a majority of custom projects and a variety of other savings are realized in the second half of the year.

Figures above one million in Table 1.1 are rounded to the nearest thousand for reference simplicity. Actual figures are noted in Exhibit 1. It is noteworthy that indicated savings figures reflect adjustments made throughout the program year. These adjustments are listed in the attached Exhibit 1, Supplement 2.

## Energy Efficiency Highlights

PSE's standard business practice is to continuously monitor its program performance, closely gauge market conditions, and adhere to continuous improvement and Total Quality Management (TQM) principles to dynamically adjust its program offerings and tactics in order to maximize conservation savings.

In the first-half of 2013 Energy Efficiency successes, highlighting the department's commitment to TQM and continuous improvement principles include its sponsorship of the Powerful Business Energy Conference in May, where over 370 industry professionals attended and participated in four tracks. PSE's LED street lighting program gained traction in the first half of the year, with more than ten projects underway. Additionally, PSE's Enhanced Lighting program received the ACEEE (American Council for an Energy-Efficiency Economy) Exemplary recognition in its Commercial Lighting category.

<sup>3</sup> Acknowledged in the Commission recessed open meeting on December 21, 2012.

<sup>4</sup> Docket No. UE-111881, Order 01, June 14, 2012.

The hugely successful ReEnergized by Design campaign, where selected PSE customers participated in a reality TV series-style contest, enhancing their homes' efficiency without compromising contemporary and attractive design. The online program generated a high degree of Energy Efficiency program awareness and participation. In its Fuel Conversion program, PSE enhanced the customer experience by streamlining the qualification criteria. In partnership with CREE Inc.® and The Home Depot®, PSE became the first utility to offer incentives for CREE's revolutionary LED bulbs.

Additional program discussions, outlining Energy Efficiency's consistent efforts to maximize efficiencies and enhance customers' experience with energy-efficiency programs are contained within the following sections of this report.

Exhibits and supplements included in this report are:

- Exhibit 1: Expenditures & Savings,
- Exhibit 1, Supplement 2: Savings Adjustments,
- Exhibit 9: Condition Compliance Checklist.
- Exhibit 10: Q1 & Q2 NEEA Report.



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## Compliance

Throughout this report, references to conditions enumerated in Order 01, Docket No. UE-111881, approving Puget Sound Energy's 2012-2021 Achievable Conservation Potential and 2012-2013 Conservation Target Subject to Conditions, Sections A through J of the 2010 Electric Settlement Agreement, Docket No. UE-100177, and applicable Sections of the 2002 General Rate Case Stipulation Agreement, Docket No. UG-011571<sup>5</sup> may be cited where applicable within program progress discussions.

This section and Chapter 9, the Glossary of Commonly Used Terms contains the only citation of the complete, formal name of those orders and conditions. In the following discussions, the report will only reference "Section", "condition", or "Order" to avoid unnecessary repetition and excessive verbiage.

### **Energy Efficiency Condition Compliance**

PSE is well on-track to meet all deliverables outlined in the above-noted documents by the conclusion of this biennium. Figure 2.1 on page 10 provides a graphical representation of activities completed in 2012-2013 that are consistent with the applicable Sections, conditions, and Orders that represent PSE deliverables. Ongoing or in-progress deliverables are also noted.

PSE shares compliance status with its Conservation Resource Advisory Group (CRAG) regularly throughout the year, providing an updated version of Exhibit 9: Condition Compliance Checklist at regular intervals. The most current version of Exhibit 9 is included in this report.

It is important to note an improvement in Exhibit 9; PSE added all applicable requirements outlined in Exhibit F of Docket No. UG-011571 to Exhibit 9 in the first quarter of 2013. This provides additional transparency of all PSE conservation deliverables. During a first-quarter CRAG meeting, this enhancement was well received by CRAG members.

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<sup>5</sup> In Order 05 of Docket number UE-100177, consolidating deliverables outlined in Dockets UE-011570, UG-011571 and UE-100177, ¶13, page 6, the Commission ordered that "...[ ] The 'Settlement Terms for Conservation' that the parties filed on June 6, 2002, as Exhibit F to the Settlement Stipulation shall continue in effect in Docket UG-011571."

Condition compliance status can be rapidly assessed by noting the various icons in the far right column of the report. The hourglass denotes that a deliverable is in progress, the green check indicates a completed deliverable, while the red x indicates a deliverables that was missed. A yellow check indicates that the deliverable will be completed by the current year-end. There may be instances where multiple icons are used for one deliverable.

An example is condition (3)(c), which indicates that PSE must provide the CRAG with electronic copies of tariff filings at least two months prior to their effective date. The checkmark in Exhibit 9 indicates that PSE complied with that deliverable when it provided the CRAG copies of revised Schedules 83 and 183, for instance.<sup>6</sup> The hourglass, though, indicates that there may be upcoming instances of that deliverable.

There are also Sections and orders that describe deliverables that can be considered “ongoing” or “standard business practices”.

For instance, Section F(12), states that Schedule 449 customers are eligible for self-direction. This is a deliverable with which PSE complied in 2011<sup>7</sup> and its status remains unchanged. Therefore, in Exhibit 9, this deliverable is marked as “completed”. Other examples include but are not limited to Sections G, H, J, and conditions 3(a), 5, 6(b).

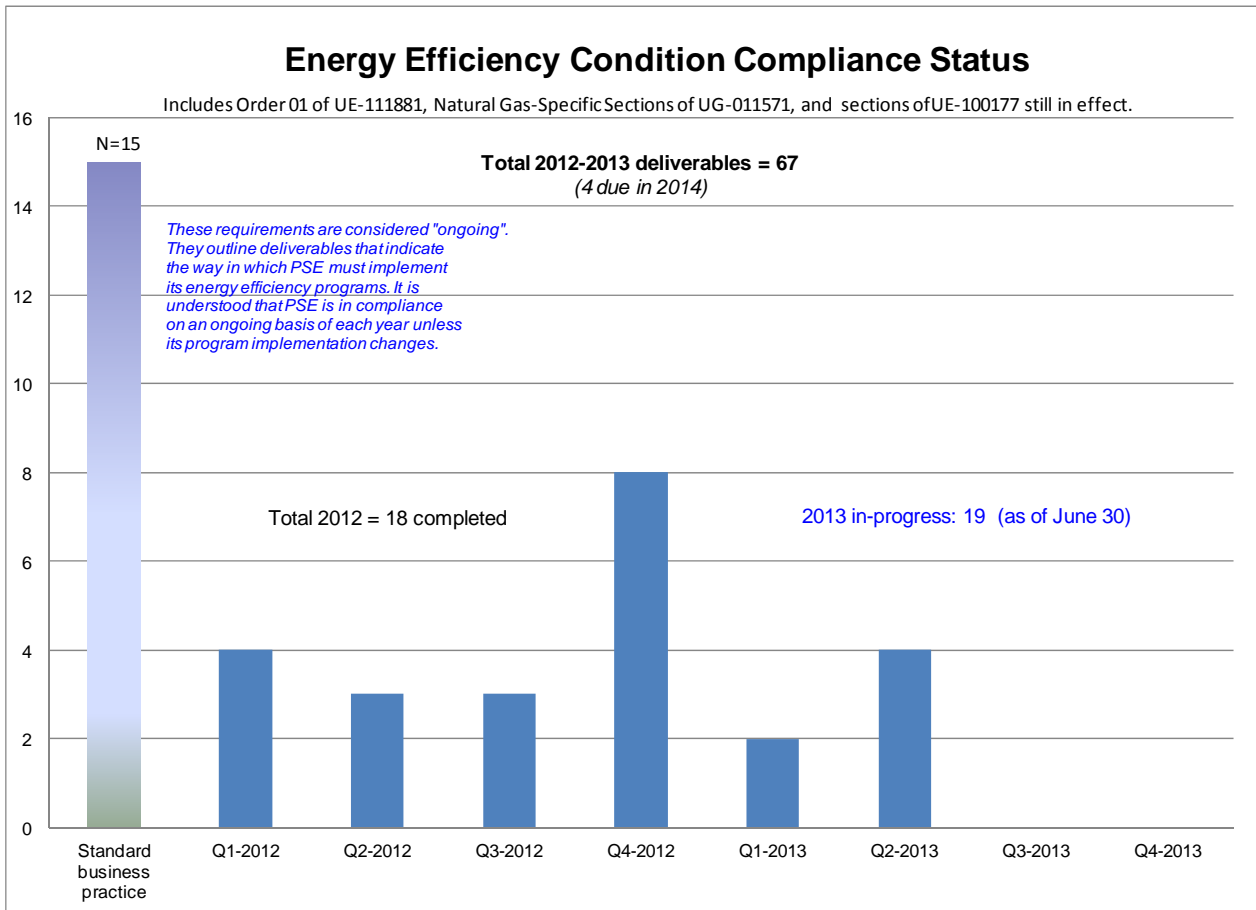
Figure 2.1 is a graphical summary of the information provide in Exhibit 9.

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<sup>6</sup> On April 9, PSE provided the CRAG a mark-up copy of Schedules 83 and 183, which address the repayment of conservation grants.

<sup>7</sup> When the first set of EIA deliverables were put into effect.

**Figure 2.1: Completed Sections and Conditions through June 30, 2013**



(Conditions [6][g] and [8][g] through [8][i] have 2014 deliverable dates.)

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## Residential Energy Management

The Residential Energy Management (REM) Sector provides incentives, rebates, contractor referrals, and conservation value-added services for a wide variety of residential customers. The Residential structure types supported are equally varied, including single family, manufactured homes, multi family and low income dwellings.

REM offers a variety of direct benefits including mail-in rebates, point-of-sale (POS) discounts for energy-efficient products, no-charge measures such as showerheads and directly-installed CFL lamps, and services such as refrigerator decommissioning.

In order to deliver value-added conservation programs to customers, the Residential team collaborates with vendors, contractors, manufacturers, distributors and retailers. The Sector leverages these relationships to assist in maximizing existing and developing future programs so that implementation is seamless to our customers.

### **2013 Progress through June**

Residential Energy Management has managed its expenditures and savings acquisition well during the first half of 2013. Electric expenditures are at 52 percent of budget at \$21.96 million, while gas expenditures completed the first half of the year at 36 percent of budget; \$2.46 million. The Sector's savings are also strong; electric savings are 50 percent of goal, finishing June at over 74,000 MWh, while gas programs have saved 32 percent of their goal; 627,000 therms.

Consistent with its commitment to TQM and continuous improvement approach, the Residential Energy Management (REM) sector made revisions to several measure offerings in order to meet its 2013 savings targets. Similarly, the following program discussions outline process and tactical improvements that enhance the customer's energy-efficiency experience and utilize Conservation Rider funding prudently. Many savings adjustments were made in order to reflect updated RTF UES values; clothes washer and electric tank water heaters are noteworthy examples. Other examples are expanding the suite of measure offerings, such as LED lamps and the complete set of Retail refrigerators.

Presenting a particular challenge is the issue of reduced gas avoided costs that has affected each REM Channel to varying extents.

Rather than retire gas programs in the entire Sector, Program Staff applied optimization techniques, using cost-effectiveness analysis on individual measures, allowing for more precise adjustments.

Program Staff also used qualifying Non-Energy Benefits (NEBs) based on RTF values to evaluate the Total Resource Cost (TRC) of measures. Therefore, REM is able to continue offering gas incentives for our customers for the remainder of 2013.

The only program impacted in its entirety was the Single Family New Construction program. The program’s sole offering of high-efficiency gas furnaces are now code in new construction. Therefore, offering a higher-efficiency furnace is not cost-effective. As stated in the 2012-2013 BCP, high-efficiency gas furnaces are also no longer cost-effective in the Multifamily New Construction programs, nor are 2.0 GPM showerheads and have been retired. The addition of a new measure, Web-enabled Thermostats, will help augment the gas savings lost from those retired measures.

In Q1 and Q2 of 2013, REM enhanced its suite of offerings by adding:

- More LED offerings to include MR-16 and an LED Engagement Bulb,
- Occupancy sensors in the Residential Lighting program,
- All levels of Energy Star® refrigerators in the Appliances program,
- A new Clothes Washer Replacement for electric water heat/electric dryers,
- A streamlined matrix of Fuel Conversion eligibility,
- All refrigerator configurations in the Retail Channel.

Additional information, including instances of continuous improvement implementations are noted in the following program discussions. Tables 3.1 and 3.2 present January through June 2013 REM expenditures and savings, respectively, by Conservation Schedule.

**Table 3.1: Residential Energy Management, 2013 YTD Expenditures**

2013 Expenditures		2013 Semi-annual View		2013 Budget
Schedule	Programs	Total	% of Budget	
Electric	Electric			Electric
Gas	Gas			Gas
E201	Low Income	\$ 1,037,322	42.8%	\$ 2,425,463
E214	Single Family Existing	\$ 14,795,811	49.0%	\$ 30,182,712
E215	Single Family New Construction	\$ 784,456	62.8%	\$ 1,249,037
E216	Single Family Fuel Conversion	\$ 292,945	27.0%	\$ 1,083,575
E217	Multifamily Existing	\$ 4,728,562	68.9%	\$ 6,861,821
E218	Multifamily New Construction	\$ 324,751	48.2%	\$ 674,421
E249	Pilots	\$ -		\$ -
	<b>Total Electric Programs</b>	<b>\$ 21,963,848</b>	<b>51.7%</b>	<b>\$ 42,477,029</b>
G201	Low Income	\$ 158,607	52.6%	\$ 301,309
G214	Single Family Existing	\$ 2,035,966	33.2%	\$ 6,128,498
G215	Single Family New Construction	\$ 8,454	-	\$ -
G217	Multifamily Existing	\$ 108,596	92.0%	\$ 118,083
G218	Multifamily New Construction	\$ 151,777	47.9%	\$ 316,966
G249	Pilots	\$ -		\$ -
	<b>Total Gas Programs</b>	<b>\$ 2,463,400</b>	<b>35.9%</b>	<b>\$ 6,864,856</b>

**Table 3.2: Residential Energy Management, 2013 YTD Savings**

2013 Savings		2013 Semi-annual View		2013 Goal
		Total	% of Goal	
Schedule	Programs			
Electric	Electric	MegaWatt-Hours		Electric
Gas	Gas	Therms		Gas
E201	Low Income	597	49.7%	1,201
E214	Single Family Existing	61,737	49.0%	125,947
E215	Single Family New Construction	1,010	66.0%	1,530
E216	Single Family Fuel Conversion	792	29.9%	2,649
E217	Multifamily Existing	9,878	59.0%	16,746
E218	Multifamily New Construction	589	61.7%	954
E249	Pilots			
	<b>Total Electric Programs</b>	<b>74,602</b>	<b>50.1%</b>	<b>149,027</b>
G201	Low Income	12,232	57.8%	21,179
G214	Single Family Existing	547,148	29.0%	1,888,891
G215	Single Family New Construction	1,167		
G217	Multifamily Existing	41,200	232.3%	17,736
G218	Multifamily New Construction	25,646	54.9%	46,713
G249	Pilots			
	<b>Total Gas Programs</b>	<b>627,393</b>	<b>31.8%</b>	<b>1,974,519</b>

REM program details are contained in Exhibit 3 of the 2012-2013 Biennial Conservation Plan, and updated in the 2013 Annual Conservation Plan filed under Docket number UE-111881.

## Low Income Weatherization

### Schedules E/G 201

Low Income Weatherization is part of the Residential Business to Business (RB2B) channel. The LIW discussion is presented in this sequence to maintain numerical alignment with Exhibit 1.

The 2013 Low Income Weatherization electric program, in partnership with social service agencies and The Energy Project, are six months into the implementation of an incentive and overhead payment structure that pays for measures considered “mission critical” to the low income customer and is intended to sustain program production in the event that State and Federal dollars diminish. To date, the Electric Program is forecasted to meet its 2013 spending and savings target. At this stage, it is unclear of the exact impact of the updated structure, due to mid-year State and Federal funding cycle deadlines which has resulted in spending of leveraged dollars offsetting the need for the “mission critical” program.



PSE anticipates that the Low Income Weatherization Gas Program will meet its 2013 spending and savings targets.

## Single Family Existing

### *Schedules E/G 214*

This Sector group is the largest contributor of savings in REM and is made of these programs:

- Retail Channel
  - Residential Lighting
  - Home Appliances
  - Showerheads
  - Home Energy Reports
- Dealer Channel
  - Space and Water Heat
  - Weatherization
  - HomePrint

## Retail Channel

PSE's Retail Channel continues to look for new and innovative ways to market programs to qualifying residential customers. This was demonstrated in two revolutionary campaigns launched within the first half of the year. On March 20, 2013, Puget Sound Energy premiered the first episode of Re-Energized by Design, a weekly online series following six PSE families going head-to-head in five brutal energy-efficient room makeover challenges.

Each week, viewers followed the drama as contestants combined brave design choices and tight budgets to create energy-efficient ideas, transforming each room into a stunning, functional and efficient space.

On April 25, 2013, the Sayers family stood victorious concluding the Re-Energized by Design campaign. The couple rose above their competitors using their unique style on each do-it-yourself project with some serious ingenuity and handiwork. The Sayers outlasted and out-designed five competing families to claim the \$5,000 grand prize in the series finale, which aired on Evening Magazine. All prizes were provided as part of a partnership with General Electric® and Electrolux®.

The campaign had a huge presence throughout PSE's service territory. Result highlights include, but are not limited to; almost 150 customers coming from 35 cities entered to become contestants, the Re-Energized by Design website received more than 200,000 visits, the online video series was viewed almost 70,000 times, and the campaign received more than 53 million media impressions. Earned media included features on New Day Northwest, the Tami Michaels's radio show, Evening Magazine and many local newspapers and online media sources. Post-campaign survey results also indicated that customers aware of PSE's Re-Energized by Design campaign were more aware of PSE's energy-efficiency programs and rated them better, than customers that were not aware of the campaign.

To keep the audience engaged, on April 29, 2013, PSE creatively tied the conclusion of Re-Energized by Design to the launch of an LED campaign called Re-Energized by Design Lighting Makeover Takeover, a campaign where broadcaster-turned-podcaster, Marty Reimer will surprise six lucky PSE residential electric customers with home lighting makeovers that will include light emitting diode (LED) bulbs. Marty Reimer was also one of the judges on Re-Energized by Design, creating a seamless transition for the PSE audience.

The Makeover Takeovers included limited time offers on LEDs and a new group of six PSE families receiving an LED upgrade throughout their home. Five of the LED upgrades were filmed for a short segment and featured online showcasing best practices and handy tips for success with LEDs. The LED limited-time-offers and the Makeover Takeover contest and videos extend through July.

### *Residential Retail Lighting*

Due partly to campaigns like Re-Energized by Design and the LED Makeover Takeover, the first two quarters of 2013 exceeded the program's mid-year forecasts, mostly resulting from strong LED unit sales. LEDs make up over 20 percent of the residential lighting savings and still continue to gain market share.

PSE continues to be a leader within the industry on our LED program, surpassing 500,000 residential units incentivized since the start of our LED measure in 2011. Because of our strong reputation, bulb manufacturer CREE Inc.®, and retailer The Home Depot®, recently partnered with PSE to become the first utility to offer incentives on their new innovative and cost-competitive LED bulb product, making PSE's service territory the first in the country to do so.

### *Residential Appliances*

The Retail Channel continues to offer a variety of appliance programs for residential customers. These include:

- Refrigerator & Freezer Decommissioning,
- CEE Tier 3 Energy Star Clothes Washers,
- Energy Star Refrigerators,
- Energy Star Freezers,
- Refrigerator & Clothes Washer Replacements.

At the start of 2013, PSE revised its appliance program to include all levels of Energy Star® refrigerators. This was implemented to maximize the energy-efficiency customer experience. During the first half of the year, this revision has resulted in fewer rebate application rejections and has increased customer participation.

The Clothes Washer replacement measure began in Quarter 1 of 2013 and with minimal marketing quickly reached initial program targets. In order to meet demand, PSE increased initial targets for the year. Customer satisfaction is high for this measure.

Despite these successes, the overall Residential Appliance program is slightly below forecasts at this point of the year. This is mostly the result of reduced participation in the Clothes Washer program due to lower PSE rebates and focus on only the top tier; CEE tier 3 Energy Star® products. Due to concerns related to cost-effectiveness, PSE is unable to increase rebate levels beyond current incentive levels. The team will focus on various promotions for the remainder of 2013 to increase customer participation.

### *Residential Showerheads*

Residential Showerhead electric savings are meeting mid-year forecasts, while showerhead gas savings are below the mid-year forecast.

In May, PSE updated our online e-tailer website to be more user-friendly and to only focus on energy-efficient showerheads and bulbs. To promote our re-launched online retail store, marketing efforts have focused on driving traffic to the site primarily through bill inserts, customer emails, and other online advertising. Monthly deals are showcased to create a sense of urgency to make a purchase. Start shopping today at [www.pse.com/shopPSE](http://www.pse.com/shopPSE).

### *Web-Enabled Thermostats*

In February, PSE released a request for proposal for a web-enabled thermostat management solution. PSE received seven qualified bidders, and after a thorough vetting, PSE executed a contract with Honeywell in June. Honeywell demonstrated the best understanding of the scope and has executed and implemented many other successful utility thermostat programs throughout the country. They understand the PSE customer and they know the local labor market better than their competitors. Marketing of the program will begin later in the year.

### *Home Energy Reports*

Through PSE's work with O-Power, we will have the option to offer a no-cost social media application that customers may access through their Facebook® account, pending Commission notification. PSE has not pursued Commission notification at this time. Due to below expectation consumer activity, O-Power is not currently supporting further development or enhancements of this tool.

## **Dealer Channel**

### *HomePrint*

Participation in the HomePrint Assessment program was strong through the end of Q1, and then slowed as ARRA and CEEP (Commercial Energy Efficiency Program) programs adversely impacted contractor resources. Contractors increased awareness campaigns in anticipation of winding down their offerings as funding sources close. The market for home assessments continues to be strong and is more frequently being implemented as a part of the bid for services process.

Apart from revising 2013 showerhead savings values to align with updated RTF values, no 2013 revisions are planned for the program.

### *Weatherization*

The electric window replacement measure qualifications were revised to remove the "fully insulated" requirement due to the cause of participation limitations. This change does not impact potential measure savings. This measure was also added as a qualifying product to be installed in support of the Home Performance with Energy Star® program.

Efforts to implement the whole-house air sealing measure for both gas and electric heated homes continued with trainings to qualified Contractor Alliance Network (CAN) contractors throughout the PSE service territory during Q1. PSE referrals for whole house air sealing began during Q2, which has resulted in steady customer and contractor participation.

PTCS (Performance Tested Comfort System) duct sealing measure specifications for both gas and electric heated homes were finalized by the end of Q1 and PSE is leveraging the BPA's online portal to serve as the mechanism for project submittals for the measure.

Contractor specification and sales-based trainings was provided to qualified CAN members participating in the weatherization program throughout the first half of 2013 that ensure safe, dependable, and efficient services are provided to our participating customers.

Measure allocation and associated savings values for insulation measures were revised in 2013 as a result of the 2012 Cadmus Single Family Existing Weatherization impact evaluation. The program added PTCS Duct Sealing and Whole Home Air Sealing Measures for the 2013 program year.

#### *Space and Water Heating*

As is the standard measure revision practice, measure allocation and associated savings values were revised in 2013 as a result of RTF savings updates in applicable instances.

### **Fuel Conversion**

#### *Schedule E216*

The majority of the savings for the program continue to come from electric to gas water heater conversions. This is due to the relative ease of converting water heaters when there is already gas service to the house.

In Q2 2013, the incentive structure and eligibility qualifications for the Fuel Conversion program were streamlined to make the program more transparent to our customers and easier to implement for the contractor market. This is expected to enhance customer participation for the remainder of the year.

### **Residential Business to Business Channel**

Single Family New Construction and Multifamily Programs are part of the Residential Business to Business (RB2B) channel. These program discussions are presented in this sequence to maintain Channel continuity, in spite of being slightly "mis-aligned" with programs' numerical presentation in Exhibit 1.

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## Single Family New Construction

### *Schedules E/G 215*

As a result of the reduced market costs of LED products, PSE is able to begin to offer LED lamp and fixture incentives to the builder market through its showroom program. Six months into the year, PSE is currently forecasting to exceed the 2013 electric savings goal. This is primarily due to the success of the Advanced Lighting Package 80<sup>8</sup> component of the program. PSE is working with its builder, showroom and neighboring utility partners to ensure the program is delivered to its customers both strategically and efficiently.

Due to the reduced avoided costs of natural gas, furnaces are no longer cost-effective and have been eliminated from the Single Family New Construction program in 2013. Since this was the only remaining measure, PSE has put natural gas incentives on hiatus.

## Multifamily Existing

### *Schedules E/G 217*

The electric direct install program continues to see participation rates increase with the addition of the refrigerator and clothes washer replacement measures. Moreover, the introduction of LEDs into the direct install program has proven to be popular with customers and help drive additional savings.

Due to improved market conditions and increased access to capital, PSE also experienced significant uptake in window incentives which are largely contractor driven. The Contractor Alliance Network (CAN) tier 1 product was also launched in Q2 which now enables contractor referrals for multifamily projects. Extending the CAN product to the multifamily sector has allowed greater and more equitable access to multifamily projects, thus driving production and customer participation.

The multifamily air sealing program, in partnership with Arrow Insulation Company, is now in its second year of implementation. To date, there have been over 40 multifamily buildings air sealed.

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<sup>8</sup> The Advanced Lighting Package is available to builders through participating lighting showrooms. This offering's unique attribute is that contractors receive an instant buy-down at the showroom when purchasing light fixtures. This reduces incentive submissions from the builders. This has resulted in increased builder participation. In 2012, the New Construction team refined the Advanced Lighting Package to include LED fixtures along with CFL fixtures. This allowed builders install 100 percent energy efficient lighting, including LED dimmable fixtures.

Savings estimates are on par with initial program design expectations. This program is currently being evaluated by PSE's evaluation team and a third-party evaluator, DNV KEMA.

The gas program has also experienced significant uptake in direct install (showerheads) largely due to PSE's service partner's (Ecova) existing multifamily direct install contract with Seattle City Light and Snohomish County PUD. This allows for greater coordination on joint utility service areas making it a more cost-efficient effort overall.

Lastly, due to the low avoided costs of natural gas, we are experiencing a decrease in the number of cost-effective commercially-calculated projects.

Another victim of reduced avoided costs of natural gas, furnaces are no longer cost-effective and have been eliminated from the Multifamily Retrofit program. The 2013 gas savings goal has been reduced by roughly 30 percent.

Thanks to the reduced market costs of LED products, PSE is able to begin transitioning its direct install bulb offerings from CFL to LED.

## **Multifamily New Construction**

### *Schedules E/G 218*

At the midpoint of 2013, Multifamily New Construction is tracking to meet the electric savings target and exceed the natural gas savings target.

Over 80 percent of the 2013 Multifamily New Construction market living units that will open are in the city of Seattle or in PSE natural gas only service territory. The bulk of the natural gas savings are generated from program grants written in 2011 or 2012 and will be paid upon completion of work in 2013.

The market potential exists to add additional 2013 therm savings but this is not likely, given that projects seeking incentives through a custom measure analysis are not passing cost effectiveness due to avoided costs reductions in 2012 and 2013.

For the remainder of 2013, there will be additional emphasis on projects within PSE electric service territory that will be completed in 2013 and are not yet in the program. These additional projects will serve as backup to cover any projects that are scheduled to be completed in 2013 but due to unforeseen construction delays might end up with completion dates in 2014. Without the additional projects, this scenario could cause the program fall short of savings goals.

All prescriptive incentives for natural gas, except for showerheads, are no longer cost-effective in 2013 due to the reduced avoided cost of gas and will be deleted.

The market in Multifamily New Construction has moved to adopting 2.0 gallon per minute (gpm) showerheads as the baseline code, so the program will delete this measure flow amount and replace with a 1.75 gpm and 1.5 gpm showerhead incentive.

Multifamily New Construction has started to leverage measures added to the Measure Metrics system from the Multifamily Retrofit. A recent example includes the addition of the same LED lighting product incentives.



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## Business Energy Management

With the first half of 2013 completed, Business Energy Management (BEM) programs are on track to reach overall electric and natural gas savings goals for the business sector. As always, some programs are experiencing greater participation, delivering greater savings, and utilizing more budget dollars in the form of incentive payments, while other programs are trending below plan. As a whole, the Business Energy Management program portfolio remains well-balanced and successful in delivering cost-effective energy savings and providing excellent customer service.

### **2013 Progress through June**

Year-to-date results consist of well-managed expenditures: electric program spending is 38 percent of budget, at \$14.47 million, while gas expenditures are 61 percent of the \$4.99 million budget. Electric savings are at a respectable 34 percent of goal; 52,800 MWh, while gas savings are an impressive 86 percent of goal at 2.28 million therms.

Impacts of the economic recovery are being noticed in BEM programs. Inquiries for new construction incentives are on the rise, and the team has begun working with developers on new construction incentives for projects that will be completed in the next biennial program period, or later. The Small Business Lighting program had experienced a surge of participation during the economic downturn, but fewer contractors are now proposing projects to PSE as they once again become occupied with non-energy efficiency projects. Outreach efforts, such as expansion of the Contractor Alliance Network (CAN) to include Small Business Lighting contractors, is helping to generate renewed interest in the program by our trade allies. Continued advancement of LED lighting technology and declining prices of LED products has sustained interest in the Commercial Lighting Markdown program, and LED technology is becoming more common on projects supported by Custom Grant funding.

During 2013, the BEM team has placed significant effort on improving software tools and systems to enhance productivity and ensure accuracy in managing projects. Significant improvements to the CSY database system are discussed in the Schedules E/G 250 Commercial/Industrial Retrofit section. Improvements to energy interval service (EIS) software and work in developing new energy management software are discussed in the Schedules E/G 253 Resource Conservation Management section of this report. Additionally, tracking of projects in the Small Business Lighting program is now handled in the CMS database. This improvement is discussed in the Schedule E255 Small Business Lighting section.

A significant amount of time was invested by BEM staff in the first half of 2013 in supporting three concurrent evaluations: Resource Conservation Manager, C/I New Construction, and Business Rebates/Small Business Lighting. Each of these evaluations requires regular check-in meetings between BEM staff, PSE in-house evaluation staff, and the contracted evaluation firms. These meetings, typically occurring on a weekly basis, are generally attended by 2-3 BEM staff who leave with action items to provide additional program information, review drafts provided by the evaluator, and manage relations with customers who are being contacted for interviews and on-site verifications by the evaluation contractor. BEM staff is committed to being actively involved in evaluation activities to ensure final results are based on thorough, well-informed analyses and that the evaluation reports provide sufficient information to support program improvements. Tables 4.1 and 4.2 present 2013 BEM expenditures and savings, respectively, for the January through June timeframe.

**Table 4.1: Business Energy Management, 2013 Expenditures**

2013 Expenditures		2013 Semi-annual View		2013 Budget
Schedule	Programs	Total	% of Budget	
Electric	Electric			Electric
Gas	Gas			Gas
E250	C/I Retrofit	\$ 6,273,289	33.0%	\$ 18,985,765
E251	C/I New Construction	\$ 312,313	21.2%	\$ 1,470,370
E253	Resource Conservation Manager - RCM	\$ 519,726	33.4%	\$ 1,557,700
E255	Small Business Lighting Rebate	\$ 2,109,586	37.4%	\$ 5,640,130
E258	Large Power User - Self Directed 449	\$ 903,944	59.9%	\$ 1,508,000
E258	Large Power User - Self Directed Non 449	\$ 1,943,295	72.5%	\$ 2,681,000
E261	Energy Efficiency Technology Evaluation	\$ -		\$ 30,600
E262	Commercial Rebates	\$ 2,407,750	36.2%	\$ 6,648,120
<b>Total Electric Programs</b>		<b>\$ 14,469,903</b>	<b>37.6%</b>	<b>\$ 38,521,685</b>
G250	C/I Retrofit	\$ 2,268,395	83.9%	\$ 2,702,330
G251	C/I New Construction	\$ 179,806	28.9%	\$ 622,050
G253	RCM	\$ 314,985	37.0%	\$ 850,920
G261	Energy Efficiency Technology Evaluation	\$ -	0.0%	\$ 27,700
G262	Commercial Rebates	\$ 262,614	33.5%	\$ 784,041
<b>Total Gas Programs</b>		<b>\$ 3,025,800</b>	<b>60.7%</b>	<b>\$ 4,987,041</b>

**Table 4.2: Business Energy Management, 2013 Savings**

2013 Savings		2013 Semi-annual View		2013 Goal
Schedule	Programs	Total	% of Goal	
Electric	Electric	MegaWatt-Hours		Electric
Gas	Gas	Therms		Gas
E250	C/I Retrofit	22,018	30.8%	71,375
E251	C/I New Construction	864	24.7%	3,500
E253	Resource Conservation Manager - RCM	5,396	28.8%	18,750
E255	Small Business Lighting Rebate	7,666	47.8%	16,040
E258	Large Power User - Self Directed 449		0.0%	4,680
E258	Large Power User - Self Directed Non 449	4,163	50.0%	8,320
E261	Energy Efficiency Technology Evaluation	-		
E262	Commercial Rebates	12,705	37.0%	34,311
	<b>Total Electric Programs</b>	<b>52,811</b>	<b>33.6%</b>	<b>156,976</b>
G250	C/I Retrofit	507,040	104.1%	487,100
G251	C/I New Construction	35,123	22.5%	156,000
G253	RCM	731,878	122.0%	600,000
G261	Energy Efficiency Technology Evaluation	-		
G262	Commercial Rebates	1,002,752	71.6%	1,400,163
	<b>Total Gas Programs</b>	<b>2,276,793</b>	<b>86.1%</b>	<b>2,643,263</b>

BEM program details are contained in Exhibit 3 of the 2012-2013 Biennial Conservation Plan, and updated in the 2013 Annual Conservation Plan, filed under Docket number UE-111881.

## Commercial/Industrial Retrofit

### Schedules E/G 250

In the first half of 2013, the **Commercial/Industrial Retrofit** program trended slightly low on electric savings, but well ahead on planned natural gas savings. Key drivers behind program performance, for both electric and natural gas savings, are discussed below.

As of June 2013, E250 is slightly behind the mid-year energy savings target. Customer budget cycles, summer construction schedules, and the calendar-driven nature of program participation historically lead to greater savings achieved in the second half of the year. Correspondingly, C/I Retrofit Electric program expenditures have trended low, but are expected to increase as year-end project completions result in greater incentive payouts.

Economic stimulus project contribution to electric savings targets continues to decline, representing less than six percent of the electric savings achieved in the first half of 2013.

The **Enhanced Lighting Program** is performing well and was recognized by the ACEEE as an Exemplary Energy Efficiency Program in the commercial sector. The program was selected:

“...[ ] as an example of leading designs and practices for energy efficiency programs offered by utilities and related organizations serving utility customers. ... Programs recognized by ACEEE are judged to be models for emulation by other utilities and organizations. ... ACEEE selected programs that demonstrate success in helping customers increase the energy efficiency of their homes, offices, businesses, and industries. ... ACEEE selected these leading programs from numerous nominations received by ACEEE in a national solicitation.”<sup>9</sup>

Additional information is available at the ACEEE website.

<http://www.aceee.org/press/2013/03/aceee-recognizes-exemplary-energy-ef>

Program efficiency has been increased through the incorporation of contractor training.

The **Comprehensive Building Tune-Up Program (CBTU)** continues to deliver very cost-effective energy savings with several projects completing the bonus phase. PSE hosted a meeting with participating trade allies to solicit feedback for program improvement. Updates to program input and incentive structure are in progress to simplify documentation and reporting requirements for trade allies.

Numerous in-house process improvements were made to the CSY project tracking and savings reporting database to improve operational efficiency, reporting accuracy and customer satisfaction:

- Engineers can now generate monthly reports within the program, which are shared with customer account reps and community relations staff to improve communications regarding customer participation in PSE’s energy efficiency programs.
- Engineers can now view project QC Reviewers’ queues and assign projects to more evenly balance reviewer workloads, reducing project turnaround time.
- Overall grant package accuracy and quality has been improved by incorporating project verification requirements into the database.
- Grant package creation has been streamlined by including Scope of Work templates in CSY and providing the ability to copy and edit existing scopes of work for similar projects.

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<sup>9</sup> Extracted from the ACEEE website in the above-noted URL.

In addition to CSY database improvements, a re-organization of the central electronic storage drives has been completed and has improved project and program tracking capabilities.

Third party contracted programs continued to generate customer interest as discussed below:

**Energy Smart Grocer (ESG)** – The program is continuing to pursue cost effective electric savings in the grocery sector. The program saw increased inquiries in the first half of 2013, particularly from customers pursuing new construction projects in the grocery sector. Energy savings delivered by ESG in the new construction sector will be reported under the C/I New Construction Program (E251).

**Data Center Energy Efficiency Program (DCEEP)** – Completion of a large data center optimization project contributed significantly to electric savings claims in the first half of 2013.

**Industrial System Optimization Program (ISOP)** – Fourteen projects entered the verification phase, which involves energy savings and invoice review. Program savings will be claimed in the second half of 2013.

**Simplified Building Tune-up Program (SBTU)** – The SBTU program has sufficient participation to deliver electric savings in the second half of 2013. Despite additional marketing efforts, program uptake has been less than expected. Furthermore, the lack of quality in fifteen minute interval data available through Energy Interval Service at some customer sites has been a barrier to participation – the contractor is unable to offer SBTU without a continuous stream of consistently reliable metered interval data.

### **Gas (G250)**

Changes to gas avoided costs had a severe impact on the quantity and type of new projects that qualified for grant funding in the first half of 2013. As a result, the pipeline of gas retrofit projects in progress is diminishing. However, completion of numerous large legacy projects, contracted in previous years, has placed the program on-track to exceed planned savings in 2013. C/I Retrofit Gas spending parallels this trend in savings, and is expected to exceed budget as incentives are paid out for large legacy projects that are now being completed.

Projects supported by economic stimulus funding have shifted toward implementing more gas efficiency measures since lighting and other electric savings measures were completed in earlier rounds of projects.

Stimulus funding has therefore had a larger impact on gas savings achieved than in the electric efficiency programs. Projects with stimulus funding attached made up almost 30% of the C/I Retrofit gas savings achieved in the first half of 2013.

The **Energy Smart Grocer** program added several natural gas measures to the program mix in 2013. Much of the first half of the year was focused on marketing these gas efficiency measures to customers to build the pipeline for the second half of the year, with a focus on the installation of glass door retrofits to open refrigerated cases.

## Commercial/Industrial New Construction

### *Schedules E/G 251*

In the first half of 2013, **C/I New Construction** program activities have focused on supporting the impact and process evaluation underway by Navigant Consulting, along with initial engagements with key developers of projects soon to begin construction as the economy recovers.

#### **Electric**

The electric savings (and budget) progress is behind schedule at this point in the year, mainly due to large projects that will close late in the year that account for a majority of the savings and budget impact.

#### **Gas**

The gas savings (and budget) progress is behind schedule at this point in the year. However, a large project currently under construction and scheduled for completion at year end will enable the program to meet its natural gas savings target, as well as ensure the new construction program portfolio meets more-stringent natural gas cost effectiveness criteria in 2013.

## Resource Conservation Manager

### *Schedules E/G 253*

The **Resource Conservation Management (RCM)** program has 69 engaged customers managing energy and resources in over 101 million square feet. Six customers are participating in a shared RCM program through two organizations and thirty-five customers are in the renewal phase of their grant.

The number of RCM customers has decreased in comparison to previous years due to utility service changes from municipalization, customers no longer qualifying for the program due to load reductions, or RCMs leaving the participating organization. Despite the downward trend, the program expects a slight increase in participation in the second half of 2013 based on recent inquiries.

The RCM program continues to support training opportunities for customers and program staff. In 2013, there have already been seven training opportunities, which have included a variety of topics ranging from benchmarking to water saving strategies. The program has also leveraged partnerships to help with the implementation of the training. Most recently, the program partnered with the Cascade Water Alliance to provide irrigation training to RCM customers and their staff.

To further help customers, the RCM program upgraded the Energy Interval Service (EIS) software in March 2013. The new software provides RCM customers an easy-to-use interface to better understand meter consumption and recognize energy saving opportunities. The program staff hosted in-person training opportunity and simultaneous webinar in conjunction with the software upgrade to help customers with the transition. In addition, the program has started working with internal staff on the development of a software replacement for the aging utility account software utilized by RCM customers. The new software product is scheduled to be available in early 2014.

The RCM program has implemented several process improvements in 2013. For example, the program has allocated cost and new grant incentives based on avoided costs by fuel type rather than units of energy (BTUs), which has provided better alignment of RCM program costs with the avoided costs of the resources being saved. The RCM program has also started tracking the actual implementation date of PSE-incentivized measures instead of using the measure paid date, which has allowed for better measurement and verification analysis. Finally, the program revised the renewal grant cost structure and the quantification of FTEs per the 2013 Annual Conservation Plan.

A third-party consultant (SBW) continues to perform an in-depth evaluation of the RCM program, which started in November 2012 and is scheduled for completion in September 2013. Program staff members have been heavily involved in providing data, documentation, and answering questions for SBW. The evaluation is being conducted to determine the veracity of PSE's reported energy savings and provide recommendations to process improvements.



The RCM program has not yet counted quantifiable Non-Energy Benefits (NEBs) associated with the program. The program plans on using information from the evaluation to help guide the NEB claiming process.

### **Electric**

The RCM electric program is below the target level for savings and budget. It is typical for the RCM program to be below target savings and budget at mid-year due to the significant quantity of customers reporting savings in the second half of the year. This is especially due to the many school districts participating in the RCM program. The grant year for school districts typically closes in late summer.

### **Gas**

The RCM gas program is above target for savings and below the target level for budget. The higher savings can be attributed to a couple of large projects that did not close at the end of 2012 and fell into 2013. Similar to the electric program, the below target level for budget is due to the significant quantity of customers reporting savings in the second half of the year.

## **Small Business Lighting**

### *Schedule E255*

In the first half of 2013 **Small Business Lighting** (SBL) released an updated version of the 2012 application and trained 49 contractors at four training sessions (including one in Ellensburg for Kittitas County contractors). The updated 2013 SBL application encourages comprehensive projects and has resulted in larger, more comprehensive, projects. As of the end of June, SBL is on track to meet its 2013 electric savings goal and currently projects are coming in at lower costs and incentive levels than anticipated.

T12 federal lighting standards are showing an effect on the SBL program. In the first half of 2013, prescriptive incentives provided for T12 to T8 retrofits were lower compared to the first half of 2012. Custom measures, on the other hand, were up in 2013 compared to 2012 and the dominant technologies used in the custom measures are new LED fixtures.

Staffing increases implemented in 2012 have allowed the SBL team to provide quicker turn-around on project Pre-Approvals, Payments and QC's. By being current with SBL processing, staff have been able to spend more time in the field working with contractors to improve their understanding of the program and project documentation requirements.

The Customer Management System (CMS) database module for SBL went live on April 29 and has been working very well for imputing and tracking project processing and quality control.

Significant coordination efforts have been made with the Verification Team in the first half of 2013 to improve coordination of inspections so that disruptions to customers are minimized. Coordination of Verification Team inspections is currently a manual process, with work underway to integrate into the CMS system. Additionally, a process and impact evaluation of the Small Business Lighting program was initiated in the first half of 2013, and the Small Business Lighting team has been providing program information to Navigant Consulting in support of this evaluation.

## Large Power User, Self-Directed

### *Schedule E258*

The **Large Power User, Self-Directed** program passed many key 2010-2014 program cycle milestones in the first half of 2013. The non-competitive phase closed in March with great success in regards to overall customer participation and utilization of incentive allocations. The competitive phase RFP was released on May 15<sup>th</sup> with an estimated \$2.4 million available in remaining incentives, which is approximately 13 percent of total incentives available in the current program cycle. This RFP will close July 16<sup>th</sup> with awards being made by September 17<sup>th</sup>.

At present, the savings claimed for the program are on track to achieve 2013 savings goals. Program reported expenditures are over planned budget due to annual program admin and market transformation true-up journal entries that occurred in March. Timing of annual true-up journal entries is being given greater attention in 2014-15 budgeting to provide closer alignment of actual expenditures with budget in each reporting period.

## Energy Efficiency Technology Evaluation

### *Schedules E/G 261*

PSE employees continued to monitor, as well as participate in, regional activities on technology evaluation including work performed by NEEA and BPA. Through this participation, PSE contributes to the regional effort, and enhances PSE's awareness and understanding of new technologies.

There were no expenses reported for this program in the first half of 2013. There were no incentive payments or material costs; employee time was minimal due to other staffing needs.

## Business Rebates

### *Schedules E/G 262*

Business Rebates program performance trends in the first half of 2013 have been lower than anticipated on electric measures and greater than planned on natural gas measures. The key driver behind these trends has been greater quantities of low-flow pre-rinse spray valves and water-saving aerators installed at facilities with natural gas water heating than at facilities with electric water heat. Increased interest in the lighting markdown program has been shown by commercial lighting distributors, therefore electric savings may trend upward in the second half of 2013.

In addition to focusing on program delivery to customers and continuing to build trade ally relations, the Business Rebates team has supported expansion of Verification Team inspections into the rebates portfolio of programs and start-up of the portfolio process and impact evaluation being conducted by Navigant Consulting.

Brief discussions of key Business Rebates program results and business drivers are provided below:

### **Electric**

The **Commercial Lighting Rebate & Lighting Markdown Programs** are slightly exceeding mid-year program forecasts due in large part to the addition of new vendors who are having success leveraging the PSE incentive to drive their sales of screw-in LED products. Businesses with a large volume of light sockets have continued to be attractive marketing targets for vendors and the primary drivers of program savings. However, an increase in the number of relatively smaller projects at different business types indicates the program is starting to be promoted more heavily to a broader array of businesses. PSE's Verification team began to inspect and verify product installations at select projects to ensure the program is achieving its claimed savings goals.

The **Commercial Washing Machine** rebate greatly exceeded its annual electric savings target in the first six months of 2013. A major initiative by the owner of a large number of multifamily properties created an unanticipated surge in commercial washing machine rebates. The majority of the properties included in the project use electricity for their water heating and dryer fuel types, which increased electric savings for the program significantly.

As anticipated, applications for **LED Traffic Signal** rebates have been slow in 2013 and the program will be phased out at year-end since the market is now considered transformed. An outreach to municipalities will be made to capture any remaining projects for which they are seeking prior to year-end.

The **Premium HVAC Service Program** has seen lower savings than originally planned for the first half of 2013, but the general trend is for more projects being submitted in the summer months, which tends to skew the program savings to after the first half of the year. This is backed up by a recent increase in applications submitted for projects. **High Efficiency Heat Pump and A/C** rebates have exhibited a similar trend in 2013.

**Variable Speed Drive** rebates have yielded lower savings than originally planned for the first half of 2013 as larger projects expected to be processed by this program are being processed by the C/I Retrofit program in conjunction with more extensive HVAC control upgrades, or by Schedule 258 Large Power User Self-Directed Program customers who were required to first utilize their incentive allocation through the Schedule 258 program prior to accessing Commercial Rebate offerings.

**PC Power Management** rebate participation has been very low in 2013, indicating market saturation among customer segments, such as school districts and government agencies, where this has been an appealing measure.

The **Portable Classroom Controls** rebate tends to have greatest participation during summer when school is out of session and facility upgrades are completed without disrupting classroom activities. A recent increase in project intake for inspections at regional school districts indicates the program is following normal participation trends.

**EC Motor** rebates continue to have limited participation, as these upgrades are likely more often processed by the C/I Retrofit program in conjunction with more extensive HVAC control upgrades.

**Commercial Kitchen** rebate participation trended lower than anticipated in the first half of 2013 and PSE staff continues to engage participating point-of-sale vendors to stimulate program growth. **Hospitality Rebates** also trended lower than planned in 2013.

PSE held a customer outreach event for hotel and restaurant owners in June and Business Energy Management staff encouraged participation in these program offerings by those who attended the event.

Electric savings delivered by **Pre-Rinse Spray Valves** and **Low-Flow Aerator** direct installs have been lower than initially planned for 2013. This is due to a greater focus placed on installing these measures in facilities with gas water heat.

**Coolermiser** direct installs are not being performed in 2013. This measure was installed on a limited trial basis in 2012 with accompanying measurement & evaluation of energy savings. Delivered savings were lower than expected, thus the offering was suspended in 2013.

The Green Motor Practices Group, which operates the regional **Green Motor Rewind Program** indicates limited participation and low savings are due to economic conditions limiting motor run hours, limiting frequency of motor rewinds. No energy savings from motor rewinds occurred.

The **Small Business Direct Install** (SBDI) program had a slow start to reporting savings in the beginning of 2013, with electric savings below target after the first six months. However, recent community blitz activity and more proactive coordination with the third-party implementer of this program have placed the program on-course to likely exceed its 2013 savings target by year-end.

## Gas

Natural gas savings from **Commercial Washing Machine** measures approached annual program targets within the first half of 2013 due to a surge in multifamily projects. **Commercial Water Heating** rebates for laundry facilities have received limited participation in 2013.

Similar to electric trends, **Commercial Kitchen** rebate participation was lower than anticipated in the first half of 2013 and PSE staff continues to engage participating point-of-sale vendors to stimulate program growth.

Natural gas savings from **High Efficiency A/C** rebates, which are primarily focused on providing electric cooling energy savings, have been minimal in 2013.

While low on delivering electrical savings, the **Premium HVAC Service Program** has service a sufficient quantity of natural gas systems to exceed the natural gas savings target for 2013.

An increased focus on installing **Pre-Rinse Spray Valves** and **Low-Flow Aerators** in facilities with gas water heat has placed the program on track to exceed natural gas savings targets.

Natural gas savings for the **Small Business Direct Install** (SBDI) were low in the beginning of 2013. Steps to mitigate the underperformance have been initiated through a joint SBDI effort with Snohomish County PUD, where gas savings measures have been targeted.

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## Regional Efficiency Programs

Although generation, transmission and distribution are not necessarily “regional”<sup>10</sup> in scope, classifying this program in either the Residential Energy Management or Business Energy Management sector would have been an inaccurate representation of its focus. Similarly, PSE wanted to avoid unnecessary clutter and complicated references in its Exhibit 1: Expenditures and Savings.

### 2013 Progress through June

Table 5.1 provides Regional Efficiency Programs expenditures through June 2013. Table 5.2 provides six-month conservation savings results for the group. Updates, revisions or variations from the 2012-2013 Biennial Conservation Plan are discussed in each program section.

**Table 5.1: Regional 2013 Expenditures**

2013 Expenditures		2013 Semi-annual View		2013 Budget
Schedule	Programs	Total	% of Budget	
Electric	Electric			Electric
	E254 Northwest Energy Efficiency Alliance	\$ 1,968,434	37.4%	\$ 5,260,640
	E292 Production & Distribution Facilities	\$ 0		\$ -
	Subtotal	\$ 1,968,434	37.4%	\$ 5,260,640

**Table 5.2: Regional 2013 Savings**

2013 Savings		2013 Semi-annual View		2013 Goal
Schedule	Programs	Total	% of Goal	
Electric	Electric			Electric
	E254 Northwest Energy Efficiency Alliance	9,700	50.0%	19,400
	E292 Production & Distribution Facilities	0	0.0%	8,100
	Subtotal	9,700	35.3%	27,500

NEEA program details are contained in Exhibit 3 of the 2012-2013 Biennial Conservation Plan, and updated in the 2013 Annual Conservation Plan, filed under Docket number UE-111881.

<sup>10</sup> Whereas NEEA conservation initiatives impacts the entire Northwest region; Washington, Wyoming, Idaho, and Oregon, PSE generation, transmission and distribution efforts affect only Washington state.



## Northwest Energy Efficiency Alliance

### *Schedule E254*

In the attached Exhibit 10: Q1 & Q2 NEEA Report, several mentions are made of programs or initiatives that were or continue to be conducted in concert with PSE; both residential and business, which is divided into commercial and industrial by NEEA. PSE Staff have reviewed these discussions to verify that savings and incentives are not double-counted, and confirm that all noted initiatives are coordinated with, and avoid any overlap of PSE-conducted initiatives.

The Northwest Energy Efficiency Alliance (NEEA) is a non-profit regional organization that collaborates with BPA, PSE, and over 100 other northwest utilities to maximize energy efficiency engagement. Using its regional reach to maximize measure evaluations, and accelerate innovation and adoption of energy efficient products, NEEA works “upstream” to help expand and accelerate energy efficiency programs.

In partnership with PSE, NEEA has provided a report of first and second quarter of 2013 activities, attached to this report as Exhibit 10. The report provides a summary of NEEA initiatives year-to-date, with discussion and highlights on those that affect PSE and its customers. PSE wishes to acknowledge and convey its thanks for the considerable effort made by the NEEA staff in compiling this report for inclusion in PSE’s Semi-Annual Report of Conservation Acquisition.

Additional organization background, annual reports, and updated news articles are available on NEEA’s website:

[www.NEEA.org](http://www.NEEA.org)

## Production & Distribution Facilities

### *Schedule E292*

While this program has yet to report electric savings in 2013, some critical tasks have been completed as efforts are made to claim savings by the end of 2013. For the **Conservation Voltage Regulation (CVR)** component of this program, representing the majority of the savings target, phase balancing for the three substations was completed in February. In June, AMI (Automated Meter Infrastructure) meters, the first in PSE’s service territory, were installed at the end-of-line (EOL) for the three substations to allow for pre and post CVR EOL voltage monitoring.

For the generation sites, it continues to be a challenge to claim savings. This is driven by documentation requirements for savings claims that can withstand a future evaluation. Continued efforts are being made to educate PSE's non-energy efficiency staff on reporting requirements necessary to quantify and claim energy savings, and to gather this documentation to enable savings claims in 2013.

Presently, this program still does not receive Conservation Rider (Schedule 120) funding. If this funding were made available it would be used for a portion of the CVR work where all savings is realized on the customer side of the meter. With no conservation funding, this work competes with other mission-critical capital and O&M projects focused on safety and reliability, leaving CVR subject to PSE budget constraints. A direct result of this has been a reduction in project scope from six substations to three.

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## Energy Efficiency Portfolio Support

In December 2012, the CRAG agreed with PSE that it was sensible to add Automated Benchmarking System to Conservation Rider portfolio. This new website will provide a customer-focused portal that will allow customers to set up automated monthly reporting for EPA requirements, and can be configured with analytic tools in the future. Through the first half of 2013, the project team has been working closely with internal PSE stakeholders on the website development and testing. Future reporting on the Automated Benchmarking System will be located within the Web Experience section of the report.

Additional semi-annual progress discussions are found in the following function details.

### **2013 Status through June**

Table 6.1 provides Portfolio Support function views of expenditures through June 2013. Program details for this group are contained in Exhibit 3 of the 2012-2013 Biennial Conservation Plan, filed under Docket number UE-111881.

**Table 6.1: Portfolio Support, 2013 Expenditures**

2013 Expenditures		2013 Semi-annual View		2013 Budget
Schedule	Programs	Total	% of Budget	
Electric	Electric			Electric
Gas	Gas			Gas
	Customer Engagement and Education	\$ 519,668	34.2%	\$ 1,519,182
	<i>Energy Advisors</i>	\$ 379,733	35.1%	\$ 1,083,272
	<i>Events</i>	\$ 97,769	32.9%	\$ 297,419
	<i>Brochures</i>	\$ 12,693	23.4%	\$ 54,250
		\$ -		\$ -
	Web Experience	\$ 454,367	45.5%	\$ 998,686
	<i>Customer Online Experience</i>	\$ 322,250		\$ -
	Automated Benchmarking System	\$ 15,673		\$ -
	<i>Online customer tools</i>	\$ -		\$ -
	E-news	\$ -		\$ -
	<i>Market Integration</i>	\$ 116,444	31.8%	\$ 366,686
	Energy Efficient Communities	\$ 126,788	33.3%	\$ 380,885
	Trade Ally Support	\$ 30,685	49.3%	\$ 62,300
	Market Research	\$ 105,108	17.3%	\$ 608,239
	<b>Total Electric</b>	<b>\$ 1,236,616</b>	<b>34.6%</b>	<b>\$ 3,569,292</b>
	Customer Engagement and Education	\$ 65,956	28.5%	\$ 231,679
	<i>Energy Advisors</i>	\$ 35,369	21.9%	\$ 161,692
	<i>Events</i>	\$ 24,401		\$ 48,329
	<i>Brochures</i>	\$ 1,869	22.9%	\$ 8,169
		\$ -		\$ -
	Web Experience	\$ 75,772	50.6%	\$ 149,792
	<i>Customer Online Experience</i>	\$ 50,979		\$ -
	Automated Benchmarking System	\$ 6,168		\$ -
	<i>Online customer tools</i>	\$ -		\$ -
	E-news	\$ -		\$ -
	<i>Market Integration</i>	\$ 18,625	34.0%	\$ 54,792
	Energy Efficient Communities	\$ 39,208	68.9%	\$ 56,915
	Trade Ally Support	\$ -	0.0%	\$ 25,000
	Market Research	\$ 14,188	15.6%	\$ 90,883
	<b>Total Gas</b>	<b>\$ 195,124</b>	<b>35.2%</b>	<b>\$ 554,269</b>

## Customer Engagement & Education

### *Energy Advisors*

The Energy Advisor Department played an integral role in the Customer Information System (CIS) SAP transition,<sup>11</sup> assisting our small business customers. PSE's Business Account Services reached out to approximately 3,000 business customers, providing them with a dedicated contact center for their particular needs. The Energy Advisor staff answered incoming calls, emails and other various requests due to the system changeover. This provided an opportunity to engage with our customers and create awareness of PSE's Energy Efficiency programs and other products and services.

### *Events*

The Low Income Weatherization program was sponsored by PSE with the annual kickoff meeting on February 27. Social service agency partners attended the meeting to discuss implementation of the 2013 program, and to collaborate with PSE on future program directions and initiatives. Also in attendance were representatives from the PSE Energy Assistance Program.

The *Powerful Business Energy Conference* was held on May 23 at the Meydenbauer Center in Bellevue, WA. The bi-annual conference was sponsored by PSE, NWEA, Seattle City Light and Snohomish County PUD and was facilitated by Electric League of the Pacific Northwest. Conference content provided the business community with the information necessary to find partnerships and solutions that save energy and money, improve comfort and enhance productivity in their facilities.

The *Hotel and Restaurant Energy Expo* was held on June 13<sup>12</sup> where PSE provided three booths (Energy Efficiency, Safety with the Red Cross and MyPSE.com). The attendees heard presentations regarding PSE's new Business web page, new products and services and energy efficiency. Tim Altier, Chief Engineer from The Westin™<sup>12</sup> in Bellevue, provided an overview of his experience working with PSE's Energy Efficiency organization and on how his company is benefiting from the energy saving projects.

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<sup>11</sup> As noted on page 52 in the 2012 Annual Report on Energy Efficiency Accomplishments, the former customer information system known as CLX was to be retired within the first two quarters of 2013. These functions are now managed entirely within SAP: Systems, Applications, & Products in Data Processing.

<sup>12</sup> Mr. Altier is featured in PSE's 2012 Annual Report on Energy Efficiency Accomplishments, "Building Tune-Up and Tracking", pages 127 and 128.

The Multifamily Retrofit program has sponsored two Washington Multifamily Housing Association (WMFHA) events during the first half of 2013 including the Maintenance Summit and Edcon. Additionally, the program has organized two “open house” tenant engagement events at apartment complexes where we provided energy education resources, safety information, and program collateral.

The Single Family New Construction program sponsored several events and home tours to educate builders and prospective homebuyers on the benefits of energy efficient new homes. Examples include: “*Selling ENERGY STAR® Homes*”-Green Canopy workshop in February, MBA of Tacoma Pierce’s Parade of Homes in May and Sustainable Connections’ *Imagine This! Home Tour* in June.

Educational outreach events provide PSE employees with a heightened awareness for energy efficiency programs that are being offered through “mini-tradeshaw” events at various PSE office locations.<sup>13</sup>

#### *Brochures*

PSE distributed approximately 160,000 residential and commercial brochures, guides, coupons, and educational materials to customers through the first half of 2013.

#### *Education*

##### *Schedules E202, G207*

PSE’s energy conservation partnership with Hopelink provides low income clients throughout King County educational information on low to no cost energy efficiency. New clients added in the first half of 2013 include Y-Family Village, Hopelink Transitional Housing of Duval and Hopelink Transitional Housing of Kirkland.

Another Energy Efficiency Education initiative is the Independent Colleges of Washington where PSE employees mentor students and assist with research projects related to energy efficiency and conservation. The 2013 student research team has been working on a report that focuses on the increase of small-wind electric generators that implement an integrated flow module. The team is on track to simulate the range of wind conditions needed to operate the system. Their final presentation is expected in autumn 2013.

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<sup>13</sup> This effort to engage and generate excitement with PSE Staff outside of Energy Efficiency is further discussed in the Energy Efficient Communities section on page 43.

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## Web Experience

The major functions comprising Web Experience include:

### *Customer Online Experience & Market Integration*

Through the first six months of 2013, the Customer Online Experience team financed the remainder of a sophisticated analytics pilot discovery launched in 2012, as well as online energy-efficiency analysis tools for residential and small business customers. A very small percentage of funds were allocated to software and image licensing to support Customer Solutions marketing programs.

Through the remainder of the year, Customer Online Experience will underwrite the development additional online tools and interactive content, including:

- Educational motion graphics, web applications and infographics,
- Planning and framework for updated personalized energy management and analysis tools for desktop and mobile.

In 2013, the Market Integration budget was allocated entirely to energy-efficiency marketing labor costs.

### *Online Tools and E-Newsletter Report*

Functional activities are meeting expectations through the first half of 2013.

## Energy Efficient Communities

For the first half of 2013, the Energy Efficient Communities (EEC) team conducted outreach to contractors, community groups, PSE employees and direct to customers on behalf of the various residential and commercial programs.

In partnership with the various programs, the regional EEC team members promoted the ReEnergized by Design initiative, the Lighting Makeover Takeover, the Appliance Replacement program, the Small Business Direct Install program, Small Business Lighting program, HomePrint, and Weatherization among others. Outreach for these programs was done through a combination of hosting information at the regional offices, presentations to community groups, staffing at community events, direct outreach to community groups to promote the programs and other methods.



The team also helped determine geographic areas where contractors were interested in participating in our programs, and then helped organize training sessions with the program teams. This helps broaden the reach of our programs for customers through contractors in more remote areas.

Part of the EEC work is also to educate PSE employees on the energy efficiency programs available so they are able to better serve customers who could potentially be interested in participating in one of the programs. One way of doing so is through employee-focused “trade shows,” where the team engage with PSE employees on the various residential and commercial energy efficiency programs that they can promote to the customers they work with. We have also been organizing training for the Gas First Response team to talk to customers about our Energy Efficiency programs when they are working with customers.

### Trade Ally Support

The Trade Ally Support expenditures funded dues payments for PSE membership in organizations that provide broad-based energy efficiency programs and services support locally, regionally, and nationally. 2013 memberships include the following organizations:

- Northwest Energy Efficiency Council (NEEC),
- Electric League of the Pacific NW,
- Building Owners & Managers Association (BOMA) of Seattle & King County, and
- Energy Solutions Center (ESC).

## Market Research

In the first half of 2013, PSE Energy Efficiency Market Research examined four broad areas: customer satisfaction with PSE energy efficiency products and services, marketing effectiveness of energy efficiency products/services, trade allies' satisfaction with participation in PSE energy efficiency programs, and new product/service development. Studies completed through June included:

- Ongoing follow-up surveys measuring customer satisfaction after engaging in energy efficiency rebate offers or calling an energy advisor.
- Surveys of customer awareness, effectiveness, and other impressions of two energy efficiency marketing initiatives, the “Re-Energized by Design” contest and the “Rock the Bulb” campaign.
- Survey of trade ally contractors to determine their level of satisfaction with working in partnership with PSE.
- Conducted a focus group of homebuilders to investigate how to increase builder participation in energy efficiency offerings, potential new products, and their outlook on the home building industry.
- Surveyed homeowner interest in a conceptual new end-to-end service to provide comprehensive energy efficiency improvements, from identification of efficiency opportunities through contractor selection and installation of measures.

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## Energy Efficiency Research & Compliance

Functions and activities within the Research and Compliance group continued to examine methodologies and implement process improvements in the first half of 2013. Significant efficiency gains were made in the Verification Team, while the Evaluation Team engaged with Program Staff on 2014-2015 planning, updating avoided costs, and participated in regional initiatives.

### 2013 Status through June

Table 7.1 provides Research & Compliance function views of expenditures through June 2013. Updates, revisions or variations from the 2012-2013 Biennial Conservation Plan are discussed in each program section.

**Table 7.1: Research & Compliance, 2013 Expenditures**

2013 Expenditures		2013 Semi-annual View		2013 Budget
Schedule	Programs	Total	% of Budget	
Electric	Electric			Electric
Gas	Gas			Gas
	Conservation Supply Curves	\$ 100,569	39.4%	\$ 255,293
	Strategic Planning	\$ 57,060	24.0%	\$ 237,429
	Program Evaluation	\$ 993,685	46.0%	\$ 2,159,039
	Verification Team	\$ 278,216	43.9%	\$ 633,401
	Program Support	\$ 123,669	27.3%	\$ 453,610
	<b>Total Electric</b>	<b>\$ 1,553,200</b>	<b>41.5%</b>	<b>\$ 3,738,772</b>
	Conservation Supply Curves	\$ 35,156	92.2%	\$ 38,147
	Strategic Planning	\$ 7,726	21.8%	\$ 35,478
	Program Evaluation	\$ 179,498	32.6%	\$ 550,292
	Verification Team	\$ 48,385	47.7%	\$ 101,357
	Program Support	\$ 48,545	91.1%	\$ 53,276
	<b>Total Gas</b>	<b>\$ 319,310</b>	<b>41.0%</b>	<b>\$ 778,550</b>

Program details for this group are contained in Exhibit 3 of the 2012-2013 Biennial Conservation Plan, and updated in the 2013 Annual Conservation Plan, filed under Docket number UE-111881.

### Conservation Supply Curves

PSE completed work on the conservation potential assessment for the 2013 IRP. Final results were presented to the IRP Advisory Group in March for gas conservation potential and April for electric conservation potential, and to the CRAG in June.

## Strategic Planning

The Strategic Planning area will continue to provide IRP and program planning support, regulatory filings and legislative review. The 2013 budget represents a 3 percent increase from the BCP level, reflecting updated labor and outside service costs.

The Strategic Planning area continued to provide IRP and program planning support, regulatory filings and legislative review, as well as high level management of the evaluation function.

## Program Evaluation

Consistent with the Company's 2012-13 Biennial Conservation Plan filing, approved by the Commission on June 14, 2012, the 2013 Evaluation activities are on-track with the Evaluation Plan, Exhibit 6 of the BCP.

Studies completed in the first half of 2013 include an impact evaluation of the Residential Tankless Water Heater program, the annual impact evaluation of the Home Energy Report program for the 2012 program year, and Snohomish County Starbucks Commercial Behavior Modification Pilot impact and process evaluation, Phase I. (PSE is providing data and technical assistance to Snohomish PUD, and in return will have access to all study results).

PSE is a key contributor to the region's knowledge about performance of energy efficiency measures through sharing of its evaluation work with the Regional Technical Forum (RTF). In March, PSE presented the approach and status of its Multifamily Air Sealing evaluation project to the RTF. The RTF was very interested in being updated on this study, even though it will not be complete until 2014.

The Independent Third Party Review of PSE 2012 and 2013 Electric Conservation Program Savings, consistent with condition (6)(g) in Order 01 of Docket UE-111881, is also underway.

Additional evaluation work is also progressing on the following:

- Outreach Showerheads installation evaluation,
- Refrigerator Early Replacement impact and process evaluation,
- Refrigerator Decommissioning impact and process evaluation,
- Refrigerator Rebate impact and process evaluation,
- Existing Multifamily Air Sealing impact evaluation – presented to RTF,
- Multifamily New Construction impact, process and market assessment evaluations,
- Single Family New Construction impact, process and market assessment evaluations,
- Commercial/Industrial New Construction impact, process, and best practices evaluation,
- Commercial/Industrial Resource Conservation manager impact, process, and best practices evaluation,
- Commercial Rebate and Small Business Lighting, impact, process and best practices evaluation,
- Snohomish County Starbucks Commercial Behavior Modification Pilot impact and process evaluation, Phase II.

## Verification Team

In addition to supporting mainstream field work in the first half of 2013, the Verification Team continues to implement process improvements and verification enhancements, including:

### 1) Data Systems

The team improved verification field forms to better align with program requirements and assist communication between program and verification teams. Automation of verification findings to program teams also now provide a streamlined process for follow-up.

### 2) Sampling Rates

The Verification Team completed over 900 verifications in the first half of 2013. These included random and phone samples, program manager requests with some intermittent oversampling were completed.

This year's program participation and installation forecasts indicate that nearly 1,600 random verifications are needed by year-end to meet 90/10 quality assurance requirements.<sup>14</sup> Verification sampling rates and site visit targets are based on installation forecasts, anticipated compliance, and verification finding rates.

### *3) Additional Verification Activities*

The Verification Team assists with other quality assurance interests in residential and business efficiency programs, including non-random visits. Non-random visits, typically performed at the request of program managers for case-specific interests, are considered quality assurance reviews, and may also result in documented findings for program management follow-up.

New measures and programs were added late in the first half to the verification portfolio. These require phone verifications provided by a third party contractor and include: Energy Star Clothes Washer, New Refrigerator, Refrigerator Replacement and Refrigerator De-commissioning.

The Verification Team launched field inspections for business rebates. This is included in the random sampling process mentioned in item two (Sampling Rates) on page 48. All business rebate programs will be available for verification team throughout the year to balance work load amongst verification field team to include eleven programs.

The Verification team provides support for the HomePrint Assessment program by accompanying third party contractors on site visits. This provides the Verification Team an insight to program knowledge used for training requirements.

In the first half of 2013, the Retail Store Verification Program was launched in support of the Residential Retail Channel. Throughout the PSE territory, inspections are performed in retail stores ensuring proper product placement and availability of PSE products.

### *4) Verification Manual*

The Verification Manual documents Verification Team procedures and provides transparency across all Verification Team activities. The Manual is kept up to date by the verification team with new procedures and programs.

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<sup>14</sup> The 90/10 quality assurance requirement indicates that the level of precision (the "10" in the ratio) of the sample is the range in which the true value of the population is estimated to be, with a 90 percent confidence level.

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## Program Support

Program Support projects in the first half of 2013 included:

- 2014-15 Biennial Plan – Development roadmap and Open RFI for new/enhanced EE programs/services,
- BECAR (Biennial Electric Conservation Achievement Review)/ SBW 3<sup>rd</sup> Party Review – Verification components review,
- Benchmarking – Upgrade PSE customer bill data tool meeting new EPA standard,
- Capacity Value (PSE peak MW reduction from EE Programs) - Tracking/reporting support,
- Cost-Effectiveness Calculator – Develop, maintain, train, version control, archive,
- Contracts Review – EE delivery/services contracts summary review/report,
- Demand Response Draft IRP content – Resource potential and cost assessment,
- Demand Response Ancillary Services – Assess PSE & customer potential & interest,
- Energy Codes – SBCC TAG (State Building Code Council Technical Advisory Group) participation, state adoption/implementation of new codes,
- Energy Efficiency Awards – ACEEE, AESP, and Energy Star nominations,
- Gas Boiler Cost Study – Incremental \$/efficiency relational database,
- NEEA Savings – Plan & forecast, PSE attribution, accounting and reporting,
- OTOC (Oversupply Technical Oversight Committee) – Assess PSE Load-shifting potential for regional Oversupply Committee,
- Pacific NW Demand Response Project – PNDRP & NPCC (Northwest Power & Conservation Council) Planning presentations,
- Point Roberts EE services – Focused/blanket-delivery wrap-up,
- Powerful Business Conference – Electric League Program Committee,
- RTF – Facilitating sub-committee participation, savings assessment & support,
- Small Business Lighting – Database automation,
- Verification Databases – Development, enhancements, training & support,
- Web-enabled thermostats - residential RFP.



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## Other Electric Programs

The “Other Electric Programs” section is segregated from Energy Efficiency programs because they are not used in calculating cost effectiveness of the overall portfolio.

### 2013 Status through June

Table 8.1 provides program-level views of expenditures through June 2013. Updates, revisions or variations from the 2012-2013 Biennial Conservation Plan are discussed in each program section.

**Table 8.1: Other Electric Programs, 2013 Expenditures**

2013 Expenditures		2013 Semi-annual View		2013 Budget
Electric	Electric			Electric
Gas	Gas			Gas
E150	Net Metering	\$ 154,633	33.6%	\$ 460,777
E248	Renewable Energy Education	\$ 16,057	13.3%	\$ 120,465
E271	C/I Load Control	\$ 140	0.1%	\$ 243,849
E249A	Residential Demand Response Pilot	\$ 166	1.7%	\$ 9,815
	<b>Total Electric</b>	<b>\$ 170,996</b>	<b>20.5%</b>	<b>\$ 834,906</b>

Detailed descriptions of these programs are contained in Exhibit 3 of the 2012-2013 Biennial Conservation Plan, filed under Docket number UE-111881.

## Net Metering

### *Schedule E150*

The market for solar PV (Photovoltaic) was very active in the first half of 2013. The cost effectiveness of solar due to federal and state incentives makes for a payback of 6.5 years. Further, the threat of losing the state sales tax exemption created an up-tick of orders. [Note that the exemption was later extended to 2020.] Additions this period were 272 customers for an additional 1,544 kilowatts of capacity.

## Renewable Energy Education

### *Schedule E248*

Puget Sound Energy's Renewable Energy Education Program ("REEP," formerly the Solar Schools Program) was created to promote solar photovoltaic and small wind demonstration projects at educational facilities throughout PSE's electric service area.

In 2012, PSE closed the REEP grant program to focus on wind energy education, providing opportunities for students to delve into the science, technology, engineering and mathematics (STEM) complexities of wind power. PSE sponsored an event for grades 4 through 12 in Kittitas County in the spring of 2012 and 2013. In both years, approximately 120 students packed the Fluke Interdisciplinary Lab at Central Washington University's Hogue Hall to test their wind turbine designs in a wind tunnel.

## Commercial/Industrial Load Control

### *Schedule E271*

The 2012-2013 IRP Demand Side Resource RFP, for a Demand Response (DR) program targeting Commercial/Industrial business customers, yielded competitive bids in expected price ranges. However the bids were found to be non-competitive with IRP supply-side resource bids under review in the first quarter of 2012. As market prices for peaking resources continue to evolve into 2013, we will consider a new bidding process for DR resources for the 2014-2015 biennium. As such we are keeping all options open for a future C/I Load Control program.

Due to postponement of this program in the current biennium, the 2013 budget for this item is \$1.2 million less than shown in the original BCP.

In early preparation work on the 2014-15 IRP, prospective Commercial/Industrial customer Load Control (or Demand Response - DR) program metrics were reviewed and analyzed with PSE's Resource Planning staff. While potentially cost-effective DR resources are identified in the IRP, the need for additional capacity resources is not projected until 2017. PSE continues to keep all options open for a future C/I Load Control program should market conditions warrant.

Concurrently, we have considered an Ancillary Services (energy imbalance and operating reserves)-based remote load control pilot for interested and suitable customer(s).

Such service agreements are conceptually viable with PSE stakeholders, however modest incremental needs/benefits have not yet prompted investment in significant customer outreach. Similarly, one or two related customer interest/inquiries to date have not yet landed with extended customer conversation.

### **Residential Demand Response Pilot**

#### *Schedule E249A*

There is no new activity to report on the Residential Demand Response Pilot since its evaluation and closure in 2012.

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## Glossary of Commonly-Used Terms

Unless otherwise noted in a specific Conservation Schedule, the following commonly-used terms, used throughout and applicable only to this document have the below noted meanings.<sup>15</sup> Definitions or glossaries contained in other ENERGY EFFICIENCY documents, policies or guidelines referring to specific processes or unique functions shall have the meanings noted in those documents, policies or guidelines.

### Definitions

<b>Calculated Savings</b>	This savings type is different than deemed (or UES) values (described below). This term indicates that there is a pre-approved, stipulated input savings value (or cost) per measure. This value (or cost) is then multiplied by site-specific input values to arrive at the overall savings value (or cost).
<b>Channel</b>	Within an ENERGY EFFICIENCY Residential or Business sector, an organization that is established to focus on the value chain—consisting of manufacturer distributor, dealer, contractor to the end-use customer—with the most similar market, delivery methods and ultimate purchasers or product users.
<b>Conditions (also see Orders)</b>	Also “2010 Electric conservation Settlement Agreement Terms and conditions” or “Energy Independence Act conditions”. Specific deliverables and stipulations by which the Company must operate or produce through the course of operating and managing energy efficiency programs. In addition to compliance requirements outlined in the 2010 Settlement Terms Sections A through J and L, the conditions are listed under Section K of the Agreed Conditions for Approval of Puget Sound Energy, Inc’s 2010-2011 Biennial Electric Conservation Targets Under RCW 19.285 Docket No. UE-100177. Effective June 14, 2012, the conditions outlined in Section K were supplanted by Commission Orders 1 through 12 in Docket number UE-111881, Order 01.

<sup>15</sup> Some acronyms, such as “ECM” have a different connotation outside the purview of PSE or conservation activities. Outside of EES, on in evaluation context, “ECM” may mean “Electric Conservation Measure”. Within EES’s BEM sector, though, it means “Electronically Commutated Motor”.

Definitions, continued

<b>Custom Savings</b>	This savings type applies to conservation projects where a PSE EME performs specific evaluation and review of a unique customer site to determine savings values—therms or kWh—that apply only for that site. For this type of measure, there is insufficient information, the occurrence is too infrequent or it cannot be specifically defined to justify development of a Calculated or Deemed protocol.
<b>Deemed Measure</b>	As in a measure’s deemed value; A savings (or cost) value that applies to a unit of specific measure, regardless of where or how the measure is installed. Measures for which it is possible to “deem” per unit energy savings, cost and load shape based on program evaluation data and engineering estimates. (For instance, one residential interior CFL lamp has a deemed value of 24 kilowatt-hours per year.) This classification applies to both RTF and PSE deemed (noted on the following page). The RTF is in the process of replacing this term with “UES”; Unit Energy Savings.
<b>Direct Benefit to Customer (DBtC)</b>	Rebates, grants, credits or services that are of value to customers. Services can include, but aren’t limited to, credits on a monthly bill, upstream incentive provided to channel partners or trade allies—either within our service territory or regionally—and free energy efficient devices available by mail.
<b>Direct Install Measure</b>	A conservation measure that is installed by a PSE representative—rather than a PSE customer—into a qualifying structure.
<b>Measure</b>	A product, device, piece of equipment, system or building design or operational practice used to achieve greater energy efficiency or to promote Fuel Conversion and Fuel Switching. Unless specifically enumerated in a specific Energy Efficiency Program, all Measures, proposed by Customers or otherwise, shall meet or exceed the efficiency standards set forth in the applicable energy codes, or, where none exists, “standard industry practice” as determined by the Company. Measures will meet common construction practices, and meet industry standards for quality and energy efficiency. <sup>16</sup> Measures must also meet cost-effectiveness standards.

<sup>16</sup> Schedule 83, section 4, Definitions, #m. Schedule 183, section 4, #l.

## Definitions, continued

<b>Orders (also see Conditions)</b>	Specific deliverables and stipulations by which the Company must operate or produce through the course of operating and managing energy efficiency programs. In addition to compliance requirements outlined in the 2010 Settlement Terms Sections A through J and L, of Docket number UE-100177, Orders 1 through 12 are listed in Order 01, Approving Puget Sound Energy's, 2012-2021 Achievable Electric Conservation Potential and 2012-2013 Conservation Target Subject to Conditions, Docket Number UE-111881. Effective June 14, 2012.
<b>Program</b>	Programs may consist of a single measure, an assortment of related measures or a suite of measures that are related strictly by delivery type, channel, or customer segment.
<b>PSE Deemed</b>	Relative to measure savings types (Custom, Calculated, PSE Deemed or RTF Deemed), these measures are supported by PSE engineering calculations or evaluation studies, in compliance with order (6)(c) in Docket number UE-111881.
<b>RTF Deemed (see also UES)</b>	Relative to PSE savings types (Custom, Calculated, PSE Deemed or RTF Deemed), supported by RTF analyses, in compliance with order (6)(b) in Docket number UE-111881.
<b>Savings</b>	<p>Savings (both gas and electric) are defined and reported as those recognized in the first year of a measure's total expected life. PSE reports the total savings for the year that the measure was implemented, regardless of when it is installed. Electric savings are counted at the customer meter, not the busbar. Gas savings are counted at the customer gas meter.</p> <p>It is important to note that all measures have an associated life, during which the noted annual savings accumulate. Each measure has a different life, as determined by rigorous evaluation.</p>
<b>System</b>	<p>In this document, System may have the following meanings:</p> <ol style="list-style-type: none"> <li>1) Any software program—supported by PSE's IT department or otherwise—or physical apparatus used to record, track, compile, report, archive, audit energy savings claims or financial data.</li> <li>2) Electrical, and/or gas equipment that is either attached together or works in concert to provide space conditioning, plumbing functions or other end-uses associated with structures, such as HVAC systems, pumping systems, etc.</li> </ol>



**Acronyms**

<b>ACEEE</b>	American Council for an Energy-Efficiency Economy
<b>ACP</b>	Annual Conservation Plan
<b>AEE</b>	Association of Energy Engineers
<b>ALP</b>	Advanced Lighting Package. Referenced in the Single Family New Construction program discussion.
<b>AMI</b>	Automated Meter Infrastructure
<b>aMW</b>	Average MegaWatt. An expression of energy (versus “power”). It is used to express very large amounts of energy. The term represents an average of power (Megawatts [MW]) used over time (the standard term being one year or 8,760 hours). Thus, 1 aMW = 8,760 MWh.
<b>ARRA</b>	American Recovery and Reinvestment Act
<b>ASHRAE</b>	American Society of Heating, Refrigerating and Air Conditioning Engineers
<b>BCP</b>	Biennial Conservation Plan
<b>BEM</b>	Business Energy Management
<b>BEOP</b>	Building Energy Optimization Program (within the BEM Sector).
<b>BOMA</b>	Building Owner and Managers Association
<b>BPA</b>	Bonneville Power Administration
<b>CBTU</b>	Comprehensive Building Tune-Up (program in the BEM Sector).
<b>CFL</b>	Compact Fluorescent Lamp
<b>CHP</b>	Combined Heat & Power
<b>CLEP</b>	Certified Lighting Efficiency Professional
<b>CRAG</b>	Conservation Resource Advisory Group
<b>CSY</b>	Energy Efficiency database; used to process custom grants and select prescriptive rebates within ENERGY EFFICIENCY.
<b>DCEEP</b>	Data Center Energy Efficiency Program (within the BEM Sector).
<b>DHW</b>	Domestic Hot Water
<b>DR</b>	Demand Response

## Acronyms, continued

<b>EC Motor (ECM)</b>	Electronically Commutated Motor
<b>EE</b>	Energy Efficiency
<b>EIA</b>	Energy Independence Act. A reference to the 2006 voter initiative, The Washington Clean Energy Initiative. The vote resulted in the creation of RCW 19.285 and WAC 480-109, which is now referred to as the Energy Independence Act. The EIA was also sometimes colloquially referred to as "I-937".
<b>EIS</b>	Energy Interval Service
<b>EME</b>	Energy Management Engineer
<b>EM&amp;V</b>	Evaluation, Measurement and Verification
<b>ERR</b>	Evaluation Report Response. A form used to complete an evaluation study's resultant actions.
<b>GIS</b>	Geospatial Information System
<b>GPM</b>	Gallons Per Minute
<b>HID</b>	High Intensity Discharge (lamp type)
<b>HVAC</b>	Heating, Ventilation and Air Conditioning
<b>IRP</b>	Integrated Resource Plan
<b>ISOP</b>	Industrial System Optimization Program (within the BEM Sector.)
<b>kWh</b>	Kilowatt Hour. 1,000 watt-hours = 1 kWh, which is equivalent to 10 100-watt incandescent lamps being turned on for one hour.
<b>LED</b>	Light Emitting Diode (typically, a lamp type)
<b>LEED</b>	Leadership in Energy and Environmental Design
<b>LIW</b>	Low Income Weatherization (program)
<b>MEF</b>	Manufacturer's Energy Factor (applies primarily to appliances)
<b>MWh</b>	Megawatt-hour. 1,000 kWh = 1 MWh
<b>NEEA</b>	Northwest Energy Efficiency Alliance
<b>NEEC</b>	Northwest Energy Efficiency Council
<b>NPCC</b>	Northwest Power & Conservation Council

Acronyms, continued

<b>NWESH</b>	Northwest Energy Star Homes
<b>O&amp;M</b>	Operations & Maintenance
<b>OTOC</b>	Oversupply Technical Oversight Committee
<b>PTCS</b>	Performance Tested Comfort System
<b>RBSA</b>	Residential Building Stock Assessment
<b>RB2B</b>	Residential Business to Business Channel. Comprised of Multifamily Existing, Multifamily New Construction, Low Income Weatherization, and the Single Family New Construction programs. Formerly referred to as the Multifamily Channel.
<b>RCW</b>	Revised Code of Washington.
<b>REM</b>	Residential Energy Management
<b>RTF</b>	Regional Technical Forum, an advisory committee and a part of the Northwest Power and Conservation Council. The RTF develops standardized protocols for verifying and evaluating conservation.
<b>SBDI</b>	Small Business Direct Install (program within the BEM Sector, Commercial Rebates).
<b>SBTU</b>	Simplified Building Tune-Up (program within the BEM Sector.)
<b>TRC</b>	Total Resource Cost: The cost to the customer and/or other party costs to install or have installed approved Measures plus Utility Costs and minus Quantifiable Benefits (or Costs). <sup>17</sup>
<b>UC</b>	Utility Cost: The Company's costs of administering programs included, but not limited to, costs associated with incentives, audits, analysis, technical review and funding specific to the Measure or program and evaluation. <sup>18</sup>
<b>UES</b>	Unit Energy Savings. Formerly "Deemed", the RTF is replacing the term with UES.
<b>VO</b>	Voltage Optimization
<b>WAC</b>	Washington Administrative Code
<b>WSEC</b>	Washington State Energy Code
<b>WUTC</b>	Washington Utilities and Transportation Commission

<sup>17</sup> Schedule 83, section 4, Definitions, #z. Schedule 183, section 4, #x.

<sup>18</sup> Schedule 83, section 4, Definitions, #bb. Schedule 183, section 4, #z.

## Conclusion

This concludes Energy Efficiency's 2013 mid-year status report of electric and gas conservation savings and expenditures. PSE appreciates the opportunity to collaborate with CRAG members throughout the year. We additionally appreciate the input and cooperation of our regional partners, other PSE divisions, and our constituents.

Most importantly, our thanks to PSE customers, who trust the dedicated men and women of Energy Efficiency to prudently use the funds that they provide in helping the Company move towards achieving our 2013 and 2012-2013 biennial goals and provide the highest level of customer service in the Northwest.

The ENERGY EFFICIENCY staff looks forward to a productive and constructive remainder of 2013!

Respectfully submitted,



Puget Sound Energy  
Energy Efficiency