



2014-2015 Biennial Conservation Plan





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Table of Contents

TABLE OF CONTENTS	3
EXECUTIVE SUMMARY	6
2014-2015-Specific Savings, Budgets and Cost Effectiveness	6
Developing the 2014-2015 Biennial Conservation Plan	8
Achieving the 2014-2015 Savings Goals	. 11
Regulatory Compliance	. 12
Following Chapters	. 12
INTRODUCTION	.14
2014-2015 Sector-Level Budgets and Savings	. 15
Developing the Electric Target and Natural Gas Goal	. 16
Priorities for the 2014-2015 Biennium	. 17
COMPLIANCE	.24
CONSERVATION SCHEDULE REVISIONS	.24
KEY PLAN ENHANCEMENTS	.25
BIENNIAL CONSERVATION PLAN CONTENTS	. 26
2014-2015 Programs	.26
2014-2015 Biennial Conservation Plan Exhibits	.27
DEVELOPING PSE'S 2014-2015 BIENNIAL CONSERVATION PLAN	. 30
Key Consideration Affecting PSE's 2014-2015 BCP	. 30
Assumptions	. 30
2014-2015 CONSERVATION SAVINGS GOALS AND BUDGETS	. 32
Key Drivers of 2014-2015 Budgets	. 33
Key Savings Drivers	. 34
Portfolio Cost Effectiveness	. 42
2014-2015 Key Initiatives	.45
EXECUTING CUSTOMER ENERGY MANAGEMENT PROGRAMS	.46
RESIDENTIAL ENERGY MANAGEMENT SECTOR	. 48
Tariff Schedule Adjustments	. 50
Low Income Weatherization	. 50
Single Family Existing	. 50
Multifamily Existing	. 56
Residential New Construction	. 56
Pilots	. 57
BUSINESS ENERGY MANAGEMENT SECTOR	. 60
Tariff Schedule Adjustments	. 62
Pilots	. 62
Commercial/Industrial (C/I) Retrofit	. 62
Commercial/Industrial New Construction	. 65
Resource Conservation Management	. 66
Large Power User Self-Directed	. 67
Technology Evaluation	. 67
Commercial Rebates	. 68
REGIONAL PROGRAMS	.70
Northwest Energy Efficiency Alliance	. 70
Distribution Efficiencies	. 70





Portfolio Support	70
Tariff Schedule Adjustments	72
Customer Engagement & Education	72
Customer Online Experience	73
Energy Efficient Communities	74
Trade Ally Support	75
RESEARCH & COMPLIANCE	76
Tariff Schedule Adjustments	76
Conservation Supply Curves	76
Strategic Planning	
Market Research	
Program Evaluation	
Verification Team	77
Program Development	78
OTHER ELECTRIC PROGRAMS	80
Tariff Schedule Adjustments	80
Net Metering	80
Commercial/Industrial Load Control	80
EXHIBIT SUMMARY	82
EXHIBIT I: TEN-YEAR ACHIEVABLE CONSERVATION POTENTIAL AND BIENNIAL CONSERVATION AC	QUISITION
TARGETS	82
EXHIBIT 1: SECTOR-LEVEL BUDGETS AND CONSERVATION GOALS	83
EXHIBIT 2: 2014-2015 COST EFFECTIVENESS ESTIMATES	84
EXHIBIT 3: ENERGY EFFICIENCY PROGRAM DETAILS	84
EXHIBIT 4: ENERGY EFFICIENCY MEASURES, INCENTIVES & ELIGIBILITY	85
EXHIBIT 5: ENERGY EFFICIENCY PRESCRIPTIVE MEASURES	85
EXHIBIT 6: ENERGY EFFICIENCY EVALUATION PLAN	85
EXHIBITS 7: MARKETING PLAN	85
EXHIBIT 8: EM&V FRAMEWORK	86
EXHIBIT 9: CONDITION COMPLIANCE CHECKLIST	86
EXHIBIT 10: NORTHWEST ENERGY EFFICIENCY ALLIANCE PLAN	86
EXHIBIT 11: TARIFF REVISIONS	87
COMPLIANCE	88
THREE SETS OF EXPECTATIONS	89
SPECIFIC CONDITIONS APPLICABLE TO THE BIENNIAL CONSERVATION PLAN	90
Tracking the 2014-2015 Conditions Compliance	92
Energy Efficiency Compliance Controls	93
GLOSSARY OF TERMS	94
ACRONYMS	
INDEX	101
CONCLUSION	102



2014-2015 Biennial Conservation Plan Supporting Documents

- Exhibit i: Ten-year Potential and Two-year Targets
- Exhibit 1: Order number level budget and savings details
- Exhibit 2: Cost effectiveness tables, including Supplements 1 and 2
- Exhibit 3: Program details, with target market, marketing plans, customer incentives
- Exhibit 4: Customer Services List of Measures, Incentives and Eligibility
- Exhibit 5: Prescriptive Measure Tables
- Exhibit 6: Program Evaluation Plan
- Exhibit 7: Marketing Plan
- Exhibit 8: Evaluation, Measurement & Verification Framework
- Exhibit 9: Condition Compliance Status Report
- Exhibit 10: Northwest Energy Efficiency Alliance Plan
- Exhibit 11: Tariff Updates

2014-2015 Biennial Conservation Plan Tables

Table 1a: 2014-2015 Energy Efficiency Savings Goals and Budgets	6
Table 1b: 2013 IRP: Conservation Guidance	8
Table 1c: 2014-2015 Energy Efficiency Savings Goals and Budgets	10
Table 2a: 2014-2015 Energy Efficiency Conservation Acquisition and Budgets by	Exhibit 1
Sector Grouping	16
Table 2b: Summary of 2014-2015 Conservation Tariff Schedule Revision	24
Table 3a: Electric Savings Target Calculation Summary	37
Table 3b: 2014-2015 Energy Efficiency Cost Effectiveness Estimates, Sector View	44
Table 4a: 2014-2015 REM Conservation Targets, Budgets & Cost-Effectiveness	Estimates
	49
Table 5a: 2014-2015 BEM Conservation Targets, Budgets & Cost-Effectiveness	Estimates
	61
Table 11a: Conditions Addressed in the 2014-2015 Biennial Conservation Plan	91

2014-2015 Biennial Conservation Plan Figures

Figure 3a: 2014 Energy Efficiency Systems Interfaces	2	23
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Executive Summary

Consistent with RCW 19.285.040(1), and requirements outlined in Commission Order 01 of Docket number UE-111881, condition (8)(f) PSE presents this 2014-2015 Biennial Conservation Plan (the Plan or BCP). Pursuant to condition (8)(f), the Company requests that the Commission allows the plan to become effective on January 1, 2014, and approve PSE's EIA biennial electric target of 485,770 Megawatt-hours, or 55.5 Average Megawatts (aMW).

In the following pages, PSE outlines a variety of new and revised programs, functions, and activities it is putting into place to exceed customer expectations and meet electric conservation targets and natural gas conservation goals. The Company appreciates the opportunity to collaborate with its Conservation Resource Advisory Group (CRAG) on the development of many of these initiatives.

2014-2015-Specific Savings, Budgets and Cost Effectiveness

Table 1a presents PSE's Portfolio budgets and savings goals planned for its 2014-2015 electric and natural gas programs.

	EIA Electric	Portfolio /	TRC	
	Target	Savings	Budgets	into
Electric	485,770 MWh, 55.5 <i>aMW</i>	621,120 MWh, 70.9 aMW	\$188.78 million	1.63
Natural Gas N/A		6.94 Million Therms	\$24.19 million	1.22

Table 1a: 2014-2015 Energy Efficiency Savings Goals andBudgets

Please see Table 1c and its associated discussion on page 10 for additional target development details.

Table 2a in Chapter 2: *Introduction*, page 16, presents additional summaries at the Sector level.





Cost Effectiveness Considerations

In the 2014-2015 biennial cost-effectiveness calculations, PSE applied Non-Energy Benefits based on RTF standards to all applicable programs; natural gas and electric.

Electric

PSE estimates that the aggregate of electric programs will achieve a Utility Cost benefit-tocost ratio (UC) of 2.25 and a Total Resource Cost benefit-to-cost ratio (TRC) of 1.63 at the Portfolio level.

Natural Gas

Program Staff strategically optimized the natural gas portfolio by reviewing individual measure cost-effectiveness, rather than applying an aggregated program or Portfolio calculation. PSE also applied a 10 percent conservation credit adder to the TRC calculations, as it does for its electric Portfolio.¹ Additionally, Program Staff availed themselves of provisions defined in Schedule 183, which allow natural gas programs to achieve a TRC of as low as 0.667 when there are a significant amount of non-quantifiable benefits.

Current cost-effectiveness calculations indicate that only four natural gas programs, including Residential and Business Sectors, will yield TRC benefit-to-cost ratios of less than 1.0, while the overall Portfolio estimated natural gas TRC benefit-to-cost ratio will be 1.22. Natural gas programs will, in aggregate, achieve an overall UC of 2.04.

PSE considers that the importance of maintaining its full suite of natural gas conservation offerings is clearly a "substantial non-quantifiable benefit", as defined in Schedule 183. Additionally, as the Portfolio value of the natural gas estimated TRC is over 1.0 as indicated above, PSE's management of its natural gas programs is consistent with the intent of condition (10)(a). Therefore, PSE recommends that the Commission approve the programs and their associated savings goals as presented in this BCP.

¹ Condition (10)(a) states in part: "[] Puget Sound Energy must demonstrate that the cost-effectiveness test presented ..[] and incorporate, (sic) quantifiable non-energy benefits, the 10 percent conservation benefit and risk adder consistent with the Council's approach. ..."





Developing the 2014-2015 Conservation Target and Goals

Throughout the 2014-2015 planning process, the Energy Efficiency department collaborated with PSE's Resource Planning team in determining the Company's ten-year conservation potential and two-year conservation targets; electric and natural gas. This planning process started at the end of 2012 and continued throughout 2013.

Consistent with condition (8)(f), PSE developed this BCP with ongoing CRAG engagement, and provided the CRAG with:

- Draft savings targets by August 1, 2013,
- Draft budgets and program details by September 1, and
- Draft tariff revisions on October 1.

2013 IRP Guidance

As noted in Exhibit i: *Ten-year Achievable Conservation Potential and Two-year Targets*, PSE's EIA-filed conservation figures are based on its 2013 IRP, consistent with RCW 19.285.040(1) and WAC 480-109-010(1)(b). The baseline figures determined by IRP guidance are noted in Table 1b.²

	Electric _(aMW)	Gas (1,000 Therms)
Ten-Year	311.7	33,000
Two-Year Adjustment	63.0 <u>0.7</u> 63.7	6,000

Table 1b: 2013 IRP: Conservation Guidance

As agreed by PSE and the CRAG in the August 22 CRAG meeting, PSE adjusted its baseline savings potential by adding the 2012-2013 Home Energy Reports measure to the two-year IRP-recommended electric savings potential of 549,650 MWh, or 63 aMW. This adjustment accounts for residential behavior-based savings that were not included in the IRP.

A slight variance in aMW totals may result from rounding of MWh values.

² Indicated amounts are rounded for presentation simplicity.



Taking into account the IRP guidance and examining the remaining considerations and variables, PSE's vision of the 2014-2015 biennial conservation savings figures came into focus in the second quarter of 2013. Key among these variables were the effects of the Joint Utility Proposal for treatment of NEEA savings and the outcome of the joint PSE-NWEC decoupling petition.

Incorporating the Treatment of NEEA Savings

Consistent with Commission Order 07 in Docket No. UE-100177, PSE submitted a Joint proposal to the Commission in October, 2012.

Using methodologies outlined in that proposal, PSE removed NEEA's modified³ 2014-2015 savings forecast of 72,533 MWh, or 8.3 aMW from PSE's total conservation potential baseline of 63.7 aMW to arrive at the 55.5 aMW submitted as PSE's EIA 2014-2015 target.⁴

Decoupling Considerations

A key consideration for the Energy Efficiency department in the approved decoupling petition⁵ is that PSE must achieve an incremental 5 percent over its Commission-approved 2014-2015 electric savings target. The same financial penalties enumerated in RCW 19.285.060 apply to this incremental amount. PSE's strategies of adding incremental savings through additional marketing, promotions and retail events, along with one-time rebates and new measures are detailed in Chapter 3: *Developing PSE's 2014-2015 Biennial Conservation Plan*.

In addition to the decoupling mechanism requirements outlined in Order 07, PSE also agreed to increase the Conservation Rider funding available to low income agencies for conservation measures by \$500,000 per year. In addition, PSE investors will increase Low Income Weatherization annual contributions by \$100,000.

³ Please see Exhibit 10, Supplement 1: *NEEA Savings Determination Methodology* for complete details. PSE and NEEA jointly revised the original 2014-2015 savings estimate of 17.6 aMW attributable to market transformation in PSE's service territory, consistent with methodology that was presented to the CRAG on August 18, 2013 and October 1, 2013. In the last meeting, all attending CRAG members indicated approval for PSE's baseline adjustment methodology, conditioned on PSE working with the two other WA IOUs to maximize the consistency of the baseline adjustment methodology.

⁴ An additional level of the calculation detail is provided in Table 1c on page 10.

⁵ PSE and NW Energy Coalition decoupling petition in Docket Nos. UE-121697 and UG-121705.



Establishing the Final EIA Electric Savings Target

Taking into account the considerations of the previous three discussions, PSE established the EIA electric target of 485,770 MWh, or 55.5 aMW indicated in Table 1a on page 6. Table 1c provides a summary of the key calculation steps used to arrive at the target. The highlighted lines⁶ in Table 1c correlate to the subtotals presented in the two-year Portfolio view of Exhibit 1. This table is also presented in the *Resulting Representation of the 2014-2015 Electric Portfolio Savings Target* discussion of Chapter 3: *Developing PSE's 2014-2015 Biennial Conservation Plan* as a Stakeholder courtesy.

Table 1c: 2014-2015 Energy Efficiency Savings Goals and Budgets

	2014-2015 Electric Portfolio Savings						
	Description	MWh	aMW	Comment	Calculation		
а	Total Biennial Potential	551,880	63.0	IRP guidance (no behavior savings)	Figure 5, Exhibit i		
b	Plus legacy HER	6,420	0.7	15,000 residential HER customers	line / of Exhibit 1		
с	Total "base" savings	558,300	63.7				
d	Less NEEA	72,530	-8.3	NEEA's adjusted TRS			
е	Total Biennial EIA Target	485,770	55.5	Penalty: \$50/MWh shortfall	c-d ("base" - NEEA)		
f	Decoupling Commitment (5% add)	27,920	3.2	5% of "base" savings	c * 0.05 ("base" * 5%)		
g	Total savings subject to decoupling penalty	513,260	58.6	Penalty: \$50/MWh shorfall	e + f (EIA target + D.C.)		
h	Individual Energy Reports (IER)	35,330	4.0	New Residential + Small Business	line ab of Exhibit 1		
i	2014-2015 Portfolio Total	621,120	70.9	Biennial budget is built to achieve this	c + f + h ("base" + D.C. + IER)		

D.C. = Decoupling Committment

EIA = Energy Independence Act; referencing RCM 19.285, or "I-937".

HER = Residential Home Energy Reports

IER = Individual Energy Reports

IRP = Integrated Resource Plan

NEEA = Northwest Energy Efficiency Alliance

TRS = Total Regional Savings



⁶ ⁶ There is a difference between Table 1c and the Exhibit 1 subtotals, in that the subtotals in Table 1c are in reverse order to show calculation steps that aren't possible to illustrate in Exhibit 1.



CRAG Engagement and Reporting

As noted in Table 1c, there is more than a single electric savings goal. Consistent with CRAG requests, PSE commits to ensuring that tracking and reporting of savings forecasts and achievement are clear.

Achieving the 2014-2015 Savings Goals

Building its savings achievement strategies and budgets from the bottom-up, as required by Section F.11⁷ and condition (4), the Customer Energy Management (CEM) team will maximize customer engagement and participation, while driving electric and natural gas conservation savings through innovation and adaptive management techniques.

Despite the effects of continued reduced natural gas avoided costs, PSE's 2014-2015 natural gas conservation goal remains relatively healthy. In the Residential Energy Management (REM) Sector, web-enabled thermostats and other measure additions are expected to offset a portion of therm losses, while the Business Energy Management Sector continues to provide expanded natural gas offerings through its Energy Smart Grocer and Small Business Direct Install programs.

The Residential Energy Management (REM) Sector is increasing the scope of its appliance replacement programs, and will also pursue an expanded offering of LED-related measures and lighting controls. Insulation measures are undergoing modifications, and residential structure sealing is being added to REM's suite of services. REM will also conduct a Home Energy Report expansion pilot into three new customer segments.

In the Business Energy Management (BEM) Sector, more programs will offer complimentary business energy audits, which will lead to increased customer awareness of BEM programs. A new software, used for remote energy audits, will be tested, and mid-sized customers who don't meet the energy use threshold to participate in the Resource Conservation Management (RCM) program will now have a new offering available; the Strategic Resource Management program. BEM will also conduct an energy reporting pilot, similar to the Home Energy Report offered in the REM Sector that focuses on small-to midsize businesses.

⁷ Sections A through J and Section L of the 2010 Electric Settlement Agreement, Docket No. UE-100177 remain in effect.



Regulatory Compliance

This Plan satisfies RCW 19.285.040(1)(b) and WAC 480-109-010(3), and is consistent with several specific conditions and requirements—the completion of which represent full compliance with the 2012-2013 list of deliverables.⁸

Chapter 11: *Compliance*, includes an extensive discussion of condition background, conditions met with the filing of this Plan, and 2014-2015 conditions development. The Plan is also consistent with several applicable deliverables enumerated in the 2001 General Rate Case Stipulation Agreement, Exhibit F, Docket No. UG-011571.

The Company consistently provides an exceptional level of background and details in its filing documents and CRAG-related materials. In compliance with condition (3)(b), PSE initiated and coordinated five formal CRAG meetings in 2013, leading to the development of this Biennial Conservation Plan.⁹ These meetings were productive and integral to its ongoing planning processes.

Following Chapters

This document discusses the management steps that PSE put into place in order to achieve the indicated savings goals while effectively managing expenses and providing exemplary stewardship of Ratepayers' funds. PSE discusses assumptions and key drivers of budgets and savings goals in Chapter 3: *Developing PSE's 2014-2015 Biennial Conservation Plan* and in the Sector Overview discussions. The most detailed level of information is contained in the attached Exhibits, numbers i through 11. They contain budget and program details, cost-effectiveness calculations, prescriptive measure tables, evaluation plans, and the condition compliance status report in a logical flow, reinforcing the business processes used to build the Plan.



⁸ As noted in Exhibit 9: Condition Compliance Checklist., there are four deliverables that are due in 2014; (8)(g), (8)(h), (8)(i), and (6)(g).

⁹ In Exhibit 9: Condition Compliance Checklist, which provides CRAG members with up-to-date status of compliance with conditions outlined in the 2012 Commission Order 01, Docket No. UE-111881, PSE clearly indicates those conditions that are completed with their completion date, as well as requirements that are in progress. PSE also maintains lists of action items that arise in its CRAG meetings, email requests and informational queries, tracking and reporting on their progress as well.



With this 2014-2015 BCP, PSE continues its principle of providing a wide range of business information in a form that meets Stakeholder needs with a high degree of transparency. PSE demonstrates its long-standing application of Total Quality Management (TQM) principles in adaptively managing its conservation Portfolio in a dynamic marketplace. As a courtesy to Stakeholders, PSE actively solicits, welcomes, and incorporates comments and suggestions on all of its filing documents.





Introduction

This document, the 2014-2015 Biennial Conservation Plan (BCP), will discuss PSE conservation program objectives and plans for the upcoming biennium. The BCP fulfills the requirements of condition (8)(f), which indicates that PSE must discuss its ten-year achievable potential and two-year conservation target, program details, and provide detailed budgets and tariff revisions for review. In accordance with the intent of condition (8)(f), PSE

requests that the Utilities and Transportation Commission (WUTC, or UTC) approve the two-year EIA electric target of 485,770 MWh, or 55.5 aMW, the natural gas two-year goal of 6.94 million therms, along with their associated budgets as discussed in the Plan, with an effective date of January 1, 2014.

Where there are notable differences, or where it is applicable, electric initiatives will be discussed separately from natural gas initiatives. Where there is not a distinction, the Energy Efficiency Program Staff will apply similar strategies and focus to both fuel type programs.

Many sections will reference and summarize supporting Exhibits, which provide a substantial amount of detailed, important information.

Throughout this Plan, references to UTC conditions may be sited where applicable within program or function discussions. These include conditions 1 through 12, paragraphs 30 through 41 in Order

01 in 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 Exhibit F in the 2001 General Rate Case Stipulation Agreement, Docket No. UG-011571.

This discussion and the Glossary of Commonly Used Terms section contain 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 unwieldy repetition and unnecessary verbiage.

The PSE biennial timeline, presented during CRAG meetings, represents the complete conservation regulatory "continuum" and affords CRAG members quick reference as to upcoming deliverables with their expected actions and responses.





Although not required as a part of RCW 19.285, PSE also includes its natural gas program plans in this 2014-2015 biennial plan.¹⁰

The 2014-2015 BCP will focus on strategies that PSE will employ in order to exceed customer expectations, prudently using the funds that they've entrusted to PSE, and be proactive in adjusting to ever-evolving market conditions while achieving its Commission-approved savings targets. Drivers of the plan, discussed in further detail throughout the following chapters, include customer participation and feedback, updated avoided cost calculations, Conservation Resource Advisory Group (CRAG) recommendations, RTF Unit Energy Savings (UES) values,¹¹ technology updates, and trade ally support, among others.

2014-2015 Sector-Level Budgets and Savings

Table 2a presents the overall budgets and savings goals by year for both electric and natural gas portfolios. The electric savings values noted represent goals necessary to achieve the additional 5 percent required in the approved decoupling mechanism, which is discussed in further detail in Chapter 3: *Developing the 2014-2015 Biennial Conservation Plan.* Budgets and savings goals by program are presented Exhibit 1: 2014-2015 Budgets and Savings.

¹¹ It is important to note that PSE aligns its RTF Deemed (UES) savings values to those outlined in the most recent version of RTF tables annually, rather than biennially, in order to reflect actual conservation savings in the most accurate manner.



¹⁰ Inclusion of PSE's natural gas plans is consistent with Section H.21 of the 2001 Rate Case Stipulation Agreement, Docket No. UG-011571, which states in part (emphasis added):

[&]quot;... After the first year, **PSE's conservation targets for** both **natural gas** and electric efficiency **programs will be revised periodically and determined by the updated conservation supply curves, current avoided cost values, program experience, and other relevant factors.** These targets will direct development of the mix of cost-effective programs that will establish the budgets for efficiency programs and once that mix has been developed, the targets will be determined. The Company will submit these targets through annual filings for Commission approval."



Table 2a: 2014-2015 Energy Efficiency Conservation Acquisitionand Budgets by Exhibit 1 Sector Grouping

Budgets Stated in \$1,000s	Electric ^{MWh}	Gas Therms, 1,000s
Residential	263,930	3,250,500
Budget	\$91,719	\$14,085
Business	243,130	2,920,000
Budget	\$68,415	\$7,472
Pilots	35,330	770,000
Budget	\$2,870	\$490
Regional (NEEA + T&D)	78,730	
Budget	\$10,843	
Portfolio Support		
Budget	\$6,745	\$1,221
Research & Compliance		
Budget	\$7,376	\$928
Other Electric Programs		
Budget	\$817	
Total Savings	621,120	6,940,500
Total Budgets	\$188,784	\$24,197

Developing the Electric Target and Natural Gas Goal

Several considerations; externalities, regulatory requirements, and internal resources affecting PSE's electric savings target and gas savings goal were examined in building the 2014-2015 conservation Portfolio. Externalities included market conditions, avoided costs, the economic recovery, and trade ally support, among others. Two new target-setting elements added a new dimension and additional complexity to this biennium's calculations; decoupling and the revised NEEA savings reporting methodology.¹² These components are discussed in further detail in Chapter 3: *Developing PSE's 2014-2015 Biennial Conservation Plan.*



¹² A detailed discussion of how NEEA and PSE developed the two-year NEEA savings forecast is contained in Exhibit 10, Supplement 1: *NEEA Savings Determination Methodology*.



Priorities for the 2014-2015 Biennium

Throughout the 2014-2015 planning process, in addition to a comprehensive design of savings goals and well-vetted budgets, the Energy Efficiency department maintained a clear focus on other important priorities.

Maximize PSE Customer Participation and Approval

One of the most critical elements of any successful conservation plan depends on maximized customer engagement and support; as stewards of Ratepayer funding, PSE's Energy Efficiency department's treats this responsibility as a top priority. PSE plans on implementing numerous customer-focused process refinements throughout 2014-2015.

Not only in direct customer-facing activities (in-person field activities, such as retail events, community initiatives, telephone interactions with PSE energy advisors, email interactions, etc.), but also in PSE's Portfolio Support activities, such as the Verification Team, custom grant evaluations, rebate processing, etc. A brief summary of these initiatives includes:

- Simplify business lighting application forms,
- Targeted market research, and more extensive use of secondary data sources,
- Expanded online energy analysis tools and mobile applications,
- Updated marketing materials, including new case studies,
- Targeted customer outreach, including in-person and outbound calls.

Additional details of these planned improvements are included in the sector- and programspecific discussions.

Throughout 2013, during the 2014-2015 planning efforts, Program Staff conducted market research to ascertain and ensure clarity of customer expectations. PSE carefully considered questions such as: What is PSE already doing well? What new initiatives would better maximize customer satisfaction? How does PSE present its offerings to best meet our customers' needs? Outcomes were incorporated into all Energy Efficiency groups, and are reflected throughout the plan's discussions. All program plans include a focus on surpassing PSE's customer expectations for energy efficiency.

PSE believes that it's necessary to not only provide customers with a positive energyefficiency experience, but also help them to understand the need for conservation and become engaged in the process. It is important that customers understand the value of their conservation efforts and contributions to preserve the integrity of the environment; for ourselves, and for future generations in the State of Washington.





All of PSE's energy efficiency messaging; its brochures, energy efficiency web pages, and media broadcasts focus customers' attention on this point.

PSE's emphasis is on superior customer service at each customer interaction. With this in mind, PSE continues to develop tools, processes and resources to provide customers with the support that they demand.

PSE continues to update its rebate applications and processing, and has significantly reduced the number of adjustments necessary due to incorrectly completed forms. The commercial lighting application process is being significantly streamlined. Web-based tools, such as myData¹³ and new energy analysis apps will also add value for PSE customers.

This emphasis on customer service is also prominent in PSE's dealings with trade allies; those contractors and third-party entities that represent PSE when installing or servicing energy-efficiency measures. PSE holds its representatives to very high customer service standards, and their performance is regularly reviewed to ensure that they also meet customer expectations.

Enhancing Regulatory Stakeholder Engagement

PSE also considers its Regulatory Stakeholders a key customer group. PSE is committed to ensuring that its Stakeholders have all of the information, program background, measure details, and process guidelines necessary to fulfill their advisory roles. PSE treats the satisfaction of their expectations with a very high regard.

With this in mind, in order to execute the tactics necessary to achieve the savings targets within the confines of regulatory requirements, PSE will continue to conduct its efficiency program operations consistent with condition (2), which indicates in part:

"... Specifically, the conditions regarding the need for a high degree of transparency, and communication and consultation with external stakeholders, diminish neither Puget Sound Energy's operational authority nor its ultimate responsibility for meeting the biennial conservation target approved herein."



¹³ myData is discussed in the Automated Benchmarking System overview on page 73.



Program Communications

PSE consistently provides Stakeholders with in-depth discussions of important conservation program issues throughout the year. There are a wide variety of discussion and notification types, including Conservation Plans and performance reports on semi-annual and annual bases. Routine program updates and revisions are often conveyed via email, and notable developments and high-level program plans are reviewed during routine CRAG meetings.

PSE has also demonstrated throughout the past several years that it welcomes questions, conversations, and Stakeholder interest. Such interactions are often more productive and place a much lower administrative burden on Program Staff. PSE is pleased to have hosted several topic-specific meetings throughout the past several years, providing an opportunity for interested Stakeholders to review programs or strategic operations in-depth.

In order to provide Stakeholders with a clear understanding of PSE's program strategies and tactics, some of the services that PSE provides are:¹⁴

- "Continuous Improvement" discussions in the Annual Reports of Energy Conservation Accomplishments,
- "Factors Impacting Program Revisions" and "Notable Revisions" in the Annual Conservation Plans,¹⁵
- "Program Revisions" in every program annual recap since 2010,
- "Key Results Drivers" sections in Sector overviews in the Annual Reports since 2010,
- Appendices, Exhibits, and Supplements providing details on prescriptive measures, their savings values and types,¹⁶ and all revisions and revision reasons throughout the year,
- Detailed Microsoft® Excel[™] spreadsheets, indicating measure revisions, their cause and results in each routine filing of Exhibit 4: Energy Efficiency List of Measures, Incentives & Eligibility,

¹⁴ Some of these features have evolved and have been refined since 2011, as PSE has analyzed data requests, and sought out Stakeholder requirements and suggestions.

¹⁵ As the Annual Plans update the Biennial plans, the focus is primarily on revisions to the original plans.

¹⁶"PSE Deemed", "RTF Deemed", etc.

Introduction



- Program updates during regular CRAG meetings,
- Prompt and thorough responses to all ad-hoc queries and data requests,
- "Field trips", providing CRAG members with first-hand exposure to a wide variety of how measures are implemented, and the customers who use them,
- Several instances of comparison tables throughout the 2013 Annual Conservation Plan's Exhibit 1: *Budgets and Savings*.

Energy Efficiency Program Staff continue to enthusiastically welcome CRAG members' input on a variety of conservation topics in 2014-2015.

The Effects of Increased Administrative Requirements

PSE recognizes that, commensurate with annual combined budgets of over \$100 million, there is a need for a high degree of transparency and accurate, timely and thorough reporting. The effective utilization of data and dissemination of information is critical to the implementation of successful programs for PSE. Equally critical is efficiently employing Ratepayer dollars to effect conservation measures.

Since the implementation of the Energy Independence Act in 2010, there has been a steady increase in the number, frequency and detail of regulatory requirements, resulting in diverting Ratepayer dollars from conservation measures to an increased number of Program Staff hours spent on administrative functions. PSE is consequently required to sidetrack focus away from its customers and providing incentives and instead prepare reports and data request responses. A current example applies to the 2012-2013 Third-Party review, where the REM and BEM Sectors each have lost the equivalent of almost 2 FTEs¹⁷ since March 2013 while Program Staff provided files and data request responses.

Through Energy Efficiency Program Staff innovation and the consistent application of Total Quality Management (TQM), PSE has managed the balance between being overly administrative and meeting customer expectations. Thanks to these efforts, PSE's ratio of incentives-to-supporting activities has increased over the last three years.

PSE looks forward to opportunities to discuss ways to minimize the need for time-consuming administrative requirements in the coming biennium.



¹⁷ While it would be impractical to track and report on the total staff time spent on providing information to the Third-Party review contractor, a reasonable estimate of the time spent on providing data, responding to questions, coordination of file sharing, etc. is between 2,000 and 3,000 aggregates hours per Sector.



Steady Innovation

Another element of PSE's program priorities is its commitment to consistently exploring innovative methods of delivering outstanding customer service and cost-effective measures while effectively managing costs. As has been their standard practice, every Customer Energy Management (CEM) department and its supporting PSE departments employ the fundamental principles of iterative and robust program management decision-making.

Program Staff designed their suite of energy-efficiency offerings, direct customer benefits,

and delivery methods based on historical performance and regular management review of a variety of attributes, employing these principles. Thanks to foundational plans that are based on Total Quality Management (TQM) principles, Program Staff, in collaboration with Evaluation, Research, and Marketing Staff, are able to optimize program execution throughout the year according to performance indicators. These include formal evaluation studies, vendor, retailer, and contractor feedback, and comments received directly from customers.

As a result of efficient processes and collaborative relationships that break down barriers, they are able to nimbly execute against strategies outlined in the BCP. In some cases, these principles result in the retirement of programs or measures that have become standard practice through market transformation, the adjustment of incentive values, bundling (cross-marketing in some cases) offerings, running short-term promotions, increasing the visibility on the PSE energy-efficiency website, etc.¹⁸

This commitment to constant innovation and proactive management has resulted in PSE consistently meeting or exceeding conservation goals for the past decade while utilizing PSE customer funding contributions wisely and prudently. PSE's application of Total Quality Management varies only insofar as the nomenclature.

Whether referred to as "TQM', "Adaptive Management", "Iterative Management" or other management colloquialisms, PSE routinely puts the iterative cycle of assessing the current and forecast conditions \rightarrow planning and developing innovative solutions \rightarrow verifying the success of those initiatives \rightarrow and adjusting program strategies and tactics into practice.

Managing any customer offering is a very fluid and dynamic endeavor, and requires forethought, planning, contingency development, and the ability think beyond standard paradigms on a routine basis.

PSE Program Staff are accomplished in this management principle, as has been demonstrated for over a decade.

¹⁸ PSE ensures that all elements of program design and execution are consistent with condition (7)(a) through (7)(c), which outline requirements around sector inclusion, program outreach, and incentive levels.





2014-2015 Continuous Improvements

Some examples of business enhancements that PSE has put into place—or will within the 2014-2015 biennium—that will have a positive impact on Energy Efficiency's success, include:

- Enhancing reference links between measure tracking databases to improve tracking and reporting accuracy.
- Increasing the exposure of energy-efficiency programs to a wider range of PSE employees who interact with customers.
- Broadening the scope of efficiency outreach efforts, including direct customer interaction, community awareness and Energy Advisor outbound calling.
- Maximizing the efficiencies of scheduling and executing community involvement and events.
- Reducing the overall time to assemble, review, vet, and perform calculations to determine program cost-effectiveness ratios.
- Maximizing Market Research data acquisition efficiencies.
- Standardization of CRAG interaction processes, including meeting email notifications, meeting summaries, handout material coordination, conference calling and deliverables facilitation, providing CRAG members increased efficiencies and allowing for more effective dissemination of PSE information.
- Significantly enhancing Exhibit 1: 2014-2015 Budgets and Savings, including separate 2014 and 2015 Portfolio and Sector pages, clear references to original 2012-2013 BCP budgets and savings figures, improved formatting of detail pages, new navigation buttons and budget detail sheet references, allowing expedient access to unprecedented program detail.

Refined 2014-2015 Systems Overview

Other contributors to the Energy Efficiency department's process enhancement are system upgrades. As many Stakeholders are aware, PSE implemented significant upgrades to its systems infrastructure in the second quarter of 2013.

The most impactful to Energy Efficiency was migrating PSE's Customer Information System (CIS) to SAP[®]. That change is reflected in figure 2a, Energy Efficiency's refined systems overview diagram.



Customer Solutions Functional Software Interfaces PSE Corporate Enterprise Systems Manual retrieval or input SAP Automatic feed Financial Customer Effective April 1, 2013 the Payment request batch is nformation legacy customer information system, CLX, was replace with CIS, a sent from CSY to System Accounts Payable (after approval) & recognized in SAP product. SAP Payment Request Proprietary Systems **Primarily Business** Primarily Residential Programs Programs Rebates, including CI Payment requests Custom grant Rebates tracking payments Budget, savings Savings tracking tracking Some residential rebates CSY Rebate Payment Statu CMS <u>CS</u> **CS-Specific Tools & Databases** Data Sources Low Income Contractors Program-specific Weatherization Web Portal Third party vendors Tracking Resellers Customers Summary lev, CS Tracking & Measure Metrics Forecasting System Regular and routine measure data reconciliation Business Grants, Regulatory Reporting Business, and some residential rebates paid ummary Tracking Master Detailed order-number Programs Budget/Savings level expenditures Tracking by period **Conservation Plans** Semi-annual Reports Schedule 120 Filings Some DR Responses

Figure 2a: Enhanced Energy Efficiency Systems Interfaces



November 1, 2013 23



Compliance

In addition to addressing several ancillary conditions, this 2014-2015 Biennial Conservation Plan is consistent with condition (8)(f). Highlights of additional conditions addressed in the BCP are listed in Table 11a in Chapter 11: *Compliance*.

This 2014-2015 Biennial Conservation Plan is consistent with deliverables noted in RCW 19.285.040(1), prescribing that a utility must identify its conservation potential and develop and publish a biennial conservation target. Applicable sections of WAC 480-109-010, addressing those same deliverables, are also addressed with this BCP.

Conservation Schedule Revisions

Very few tariff revisions were necessary for the 2014-2015 biennium. Table 2b provides a summary of those modifications, with a discussion of Schedule 83 and 183 revisions below. The applicable Sector overviews provide additional details for Schedules 207 through 292.

PSE provided mark-up copies of all revised tariff sheets to the CRAG on October 1, 2013, consistent with the third deliverable of condition (8)(f).

Schedule	Fuel Type	Program	Sector	Revision
83	Electric	Electric Conservation Service	Applicable to all	Addition of Customer subscription language to Availability Section and updated 2014-2015 budgets.
183	Natural gas	Gas Conservation Service	Applicable to all	Addition of Customer subscription language to Availability Section and updated 2014-2015 budgets.
207	Natural gas	Energy Efficiency Education	Portfolio Support	Re-number natural gas Schedule to G202 to align with electric Schedule 202 for EE Education.
248	Electric	Renewable Energy Education	Other Electric Programs	Program Cancelled. Education services offered through Green Power Program and Net Metering.
253	Both	Resource Conservation Management	Business Energy Management	Re-named Schedule from "Manager" to "Management" and eliminated salary guarentee.
255	Electric	Small Business Lighting	Business Energy Management	Schedule cancelled. Lighting projects will continue, though, and be managed in C/I Retrofit and Business Rebates programs.
292	Electric	Generation	Regional Programs	Added Conservation Service Rider funding for substation Conservation Voltage Reduction initiatives.

Table 2b: Summary of 2014-2015 Conservation Tariff ScheduleRevision



Schedule 83 and 183, Electric and Natural Gas Conservation Service respectively, contain the same revisions. Each was updated with the 2014-2015 electric and natural gas budget amounts in Section 10, and termination date in Section 11.¹⁹ PSE also added Customer Subscription language to each Schedule's Availability Section on the first page. It is interesting to note that only the revised tariff sheets; not the entire Schedule, is filed with the UTC. Although included as Exhibit 11 as a courtesy to Stakeholders, the tariff revisions themselves are filed separately from the BCP.

Key Plan Enhancements

Continuous improvement initiatives are not limited to conservation programs within the Energy Efficiency department. PSE included a variety of noteworthy upgrades to its Plan standards in this 2014-2015 BCP. Readers will recognize that several enhancements resulted from Stakeholder comments and requests.

PSE takes into account and appreciates Stakeholder comments relative to its documentation ease-of-use, presentation formatting, and ability to effectively access the required information. PSE re-prioritized the information presented in the Plan that Stakeholders indicated isn't as valuable, expanded that which is useful, and organized the entire BCP package in a logical, consistent, and methodical flow. Even with these improvements, PSE maintained the traditional chapter/section focus and presentation style to maintain continuity with PSE's reporting and planning documents.

These tenets and focus on Stakeholder needs have earned PSE praise in recent years' filing comments;²⁰ the Energy Efficiency Staff continue to value and incorporate Stakeholder suggestions whenever possible.

²⁰ For instance, in its 2013 Annual Conservation Plan (Docket No. UE-111881) filing comments, Public Counsel indicated that "The quantity and quality of information that PSE provided the CRAG and stakeholders at the time of, and in advance of, this filing was impressive. Public Counsel believes that PSE continues to set the standard with how information is provided to the CRAG and the Commission in the Annual and Biennial planning reporting documents."



¹⁹ In the Natural Gas Conservation Service Schedule 183, Termination is discussed in Section 12.



With these tenets in mind, PSE made the following enhancements to the BCP documentation:

- 1. Program discussions will include separate highlights of electric and natural gas programs wherever possible and where there is a difference in strategic considerations.
- 2. Added an index for easier reference to terms, acronyms, or names that may not be included section headings.
- 3. Relocated Chapters that provide supporting or ancillary discussions to the back of the document (for instance, *Compliance, Exhibit Summary*), similar to moving the Glossary to the end of the document, allowing readers to access meaningful information and the actual plan discussions earlier in the document.
- 4. Tariff Schedule revisions are listed in each applicable Sector introduction. Each Tariff Sheet revision, a mark-up version of a Microsoft® Word[™] document, is contained in a new Exhibit, Exhibit 11: *Tariff Revisions*.
- 5. Numerous improvements to key Exhibits, including significant revisions to Exhibit 1: 2014-2015 Budgets and Savings and Exhibit 9: Condition Compliance Checklist. The enhancements are discussed in detail in Chapter 10: Exhibit Summary.
- 6. Rather than provide a single prodigious printed volume, PSE separated the contents of the 2014-2015 BCP into three more manageable volumes. Whether electronic files or printed pages, the volume designations will correlate to each other. PSE will also provide flash drives of the BCP to each requesting CRAG member.

Biennial Conservation Plan Contents

2014-2015 Programs

Each program discussion is consistent with PSE's long-standing program management process, focuses on total quality management principles, and reflects PSE's operational authority. The following chapters will outline the steps that PSE will take to achieve its goal of ensuring that customer participation in energy-efficiency programs is easy, rewarding, and acknowledges their confidence in PSE's stewardship of their conservation funding.



To reduce the bulk of the Plan, PSE separated it into three separate volumes, logically arranged, and according to reference type priority. The primary focus of the program plan discussions in the following sections is on maximizing the value of existing—and developing new—customer offerings. The programs will be implemented consistent with extensive market analyses, conversations and meetings with trade allies, and routine continuous improvement business management.

The plans will elaborate on PSE's adaptation to evolving market conditions, RTF savings value updates, improved delivery methods, impact evaluation results and engineering analyses, and other driving factors.

2014-2015 Biennial Conservation Plan Exhibits

In this Plan, PSE references 12 Exhibits that provide additional details about key elements of Energy Efficiency operations. As has become standard practice, this Biennial Conservation Plan includes the Plan Overview and all conservation Exhibits.²¹

In order to present these in a logical filing structure that is manageable for Stakeholders, PSE assigned new designations to the overall BCP package. Part 1 is the 2014-2015 Plan Overview. Part 2 includes of all of the Exhibits. This naming principle will assist Stakeholder in their filing comments or data request references. Next, PSE eliminated the single massive binder and instead separated the publications into three more manageable volumes; these are presented in both hard-copy and electronic (USB flash drive) format.

The volumes are organized accordingly:

²¹ In its Annual Conservation Plans, PSE excludes Exhibit 7: *Marketing Plan*, and Exhibit 8: *The EM&V Framework*, for instance.



Volume One

Part 1

Plan Overview

Part 2

- Exhibit i: Ten-year Achievable Conservation Potential and Two-year Targets,²²
- Exhibit 3: Program details, with target market, marketing plans, and customer incentives descriptions,
- Exhibit 4: Energy Efficiency List of Measures, Incentives and Eligibility.

Volume Two

Part 2, continued

- Exhibit 1: Program-level budget and savings goals details,
- Exhibit 2: Cost-effectiveness tables. Includes avoided cost and costeffectiveness calculation methodologies.

Volume Three

Part 2, continued

- Exhibit 5: Prescriptive Measure Tables,²³
- Exhibit 6: Program Evaluation Plan,
- Exhibit 7: Marketing Plan,
- Exhibit 8: EM&V Framework,
- Exhibit 9: Condition Compliance Checklist,
- Exhibit 10: Northwest Energy Efficiency Alliance (NEEA) Plan,
- Exhibit 11: Conservation Tariff Updates.



²² Exhibit i: the *Ten-year Conservation Potential and Two-year Target* was named as a part of the 2013 Annual Conservation Plan. In the 2012-2013 BCP, this document was an unnamed Exhibit, causing confusion for Stakeholders. The updated numbering sequence preserves the established Exhibit sequence while allowing this important target-setting document to reside in its appropriate position.

²³ Since new measures are added to the Measure Metrics database only when they are active, Exhibit 5 lists <u>planned</u> 2014-2015 measures. Actual measures available and their savings values, along with the 2014 measure revisions, aren't available until the 2014 Annual Report is published in February 2015. 2014-2015 forecast measure counts are included, however, within the Exhibit 1 program budget detail pages.

The only Supplement included in the 2014-2015 BCP is related to Exhibit 10: NEEA Plan. Supplement 1: NEEA Savings Determination Methodology contains a discussion of the processes used by NEEA and PSE to determine the two-year NEEA savings forecast.





Developing PSE's 2014-2015 Biennial Conservation Plan

The following discussions outline strategies and tactics that PSE's Energy Efficiency Staff plan to execute in 2014-2015 in order to respond to changing market conditions, anticipate customer requirements, and achieve conservation targets. The discussions in Chapters 4 through 9 follow the BCP Exhibit 1 Schedule numbers (noted in parentheses) in order.

Additionally, the discussions will illustrate PSE Staff expertise in responding to industry trends, adapting to periodic RTF UES revisions, and their ability to develop creative, costeffective conservation solutions for PSE customers. The discussions focus on steps that program managers are already putting into place to minimize Ratepayer costs, streamline processes, and improve customer satisfaction and engagement. PSE will also demonstrate its ongoing commitment to providing useful information, presented in a logical fashion that exceeds Stakeholders' expectations.

Details that reflect these discussions are outlined in the included Exhibit 3: Program Details.

Key Consideration Affecting PSE's 2014-2015 BCP

Assumptions

This section discusses some of the key assumptions that were used to generate the bottomup electric savings target and natural gas savings goal, along with their corresponding budgets, as they apply to the 2014-2015 biennium. Although long-term assumptions, especially those that are discussed in PSE's 2013 IRP,²⁴ may also have an impact on the immediate future, Program Staff examined conditions that they understand and agree will affect their ability to immediately acquire the conservation savings necessary to meet savings goals and targets in the upcoming biennium.

In the event that unforeseen circumstances arise, Program Staff will continue to apply TQM principles to adapt their programs to these changes in an effective and nimble fashion.

²⁴ All 2014-2015 BCP references to the 2013 IRP are derived from the IRP's Chapter 4: *Key Assumptions*. The complete 2013 IRP (combined chapters and appendices) is available at http://pse.com/Pages/Search.aspx?k=2013%20irp



PSE's 2013 IRP

As discussed in detail in Exhibit i: *Ten-year Achievable Conservation Potential and Two-year Targets*, the 2014-2015 electric and natural gas conservation potentials of 549,650 MWh, or 63 aMW and 6,000,000 therms, respectively, are based on several well-founded considerations, including, but not limited to:

- The expanded Residential behavior-based conservation potential is excluded,
- Conservation resulting from updated codes and standards is excluded,
- Only commercially-viable measures are examined,
- The IRP potential was obtained from PSE customer-specific data, rather than general regional information,
- Non-Energy Benefits (NEBs) considered by the IRP are primarily water-savings based and are consistent with the Council methodology.
- PSE assumes that the Washington State and Puget Sound economies will continue their modest recovery trends, with long-term job growth continuing at a moderate pace. Natural Gas prices will possibly rise, increasing the avoided costs. Customer load growth is expected to continue at a steadily slow-to-moderate rate.

These considerations were addressed in the June 6 and July 18, 2013 CRAG meetings, through seven IRPAG meeting between 2012 and 2013, and were included in PSE's target-setting discussions with the CRAG. Additional assumptions impacting 2014-2015 program strategies are highlighted below.

Economic and Market Assumptions

- Another recession may have a dramatic effect on PSE's conservation efforts.
- As the economic recovery gathers momentum, concerted effort will be necessary to maintain an engagement with trade allies, who supported PSE conservation programs in increased numbers during the great recession. Trade allies will do business with PSE only if it is efficient and convenient.
- Continued low avoided costs will have a negative effect on conservation programs overall.
- LEDs will continue their maturation, leading to reduced retail costs.
- Demand response acquisition may increase within the next five years, depending on market conditions.





Technological Assumptions

- As the marketplace grows more saturated with CFL lamps, LED technology will supplant them as the predominant lighting technology.
- Many low-cost conservation measures have now saturated the Puget Sound market; thus, an increasing number of higher-cost measures are in the product mix, which sometimes also have a negative effect on cost effectiveness.
- New construction; residential single family and multifamily, and commercial are affected by updated energy code²⁵ and standards.
- T-12 to T-8 fluorescent lamp conversions are nearly complete and will have limited impact on electric savings.
- Energy usage data will become more advanced and accurate, leading to the implementation of additional deemed measures in both REM and BEM Sectors.

Regulatory Conservation Environment

 Some natural gas commercial kitchen incentives are no longer available in the City of Seattle, where municipal codes mandate minimum standards for measures on which PSE offered incentives.

2014-2015 Conservation Savings Goals and Budgets

Program-level and sector views of 2014-2015 Energy Efficiency savings and budgets are contained in Exhibit 1, which is most effectively viewed in its Microsoft® Excel[™] format. Detailed budgets by program, classified by budget category, are presented in the Exhibit 1 Sector views (color-coded tabs in the workbook); both electric and natural gas programs.

²⁵ Put into effect July, 2013.





Key Drivers of 2014-2015 Budgets

The electric budget of \$188.8 million considers, but is not limited to the following key drivers:

- Decoupling: budgets were built on the additional effort that will be required to achieve 105 percent of the EIA target.
- 2) Updated corporate labor overhead rates for the 2014-2015 BCP; 69.2 percent for 2014 and 69.6 percent for 2015.
- 3) A decrease in low-cost measures and an increase in offsetting, higher-cost measures.
- 4) An apparent increase in Verification Team spending. The Team was not funded in 2012, which leads to this perceived increase.
- 5) An additional \$500,000 annually for low-income weatherization, consistent with PSE's decoupling commitment.

The natural gas budget of \$24.2 million is a result in large part by the effect of continued low natural gas avoided costs and PSE's concerted efforts to maintain viable natural gas offerings. PSE's adaptation of its natural gas conservation programs to this ongoing issue resulted in:

- 1) Increased costs in the Residential Sector, resulting from slightly higher incentive costs.
- 2) A significant reduction in Business Sector savings resulted in a decrease in planned incentive expenditures.
- 3) A slight increase in program marketing, which is needed to compensate for reduced offerings.
- 3) An apparent increase in Verification Team spending. The Team was not funded in 2012, which leads to this perceived increase.
- Lower costs in all budget categories in Portfolio Support functions, while Labor and Outside Services expenditures are lower in Research & Compliance.²⁶

²⁶ While the reclassification of the Market Research category from Portfolio Support to Research & Compliance may account for some of the reduction in Portfolio Support budgets, the overall Research & Compliance budgets were also reduced.





Key Savings Drivers

In the 2014-2015 biennium, several considerations affected PSE's savings goal development, including the newly-approved PSE-NWEC decoupling petition, implementation of the NEEA savings treatment, savings value adjustments, and regional market conditions, among others.

Decoupling

In the Commission's Order 07, Docket Nos. UE-121697 and UG-121705 (consolidated), approving the PSE/NW Energy Coalition decoupling petition, PSE is required to achieve 5 percent above its Commission-approved EIA 2014-2015 target. Order 07 excludes natural gas savings from this requirement, in consideration of the low avoided costs for natural gas.²⁷

In its 2014-2015 electric savings target calculation, PSE added 5 percent to its baseline savings target; 63.7 aMW, rather than applying 5 percent to that baseline less NEEA forecast savings; 55.5 aMW. This treatment resulted in a decoupling value of 27,920 MWh; 3.2 aMW, versus a value of 24,528 MWh; 2.8 aMW; a difference of 0.4 aMW.²⁸ This treatment reflects PSE's commitment to accurate representation of compliance with the Order.

PSE will achieve the incremental savings using a variety of strategies, including but not limited to:

- 1) <u>Expanded marketing, promotional, and retail events,</u> such as McLendon®'s, The Home Depot®, etc., during the peak buying seasons.
- 2) <u>New programs and program initiatives.</u> New programs include SRM (Strategic Resource Management), and remote energy analysis which seek to expand customer awareness of savings opportunities and participation in PSE programs. New initiatives include added design assistance for C/I New Construction projects and expansion of Small Business Direct Install programs with the intent of increasing quantity of measures installed and savings achieved per customer site.



 $^{^{27}}$ ¶ 108, page 49 of Order 07, Section D.2.c.: "..[] The Company will accelerate its acquisition of costeffective electric efficiency resources to achieve 105 percent of the targets set by the Commission. Considering current conditions in natural gas markets, a similar commitment is not feasible. [].."

²⁸ These calculation steps are outlined in Tables 1c and 3a (duplicate tables).



- Identify incremental savings opportunities. In some instances, opportunities won't present themselves until the program cycle is underway. PSE excels at listening to and understanding customer needs and market conditions, and effectively responding to them.
- Expanded Energy Efficient Communities outreach, comprised of leveraging community awareness of residential and commercial programs, direct customer contact--including door-to-door and Small Business Direct Install blitzes.

It is notable that it isn't possible for PSE to distinguish between "EIA-compliant savings" and "decoupling" savings in its tracking and reporting. All conservation achieved will be reported in PSE's standard timing, formats and means,²⁹ and reporting will be based on comparison to the single electric MWh EIA target approved by the Commission. The EIA financial penalty of \$50 per MWh³⁰ of savings shortfall applies to the Commission-approved electric savings target. The decoupling penalty of \$50 per MWh of savings shortfall applies only to the specific incremental decoupling amount.³¹

Another element of the Commission Order 07 is that PSE commits to adding an incremental \$500,000 annually to its Low Income Weatherization program funding, with another \$100,000 annually contributed by PSE shareholders. This increased funding is expected to provide additional savings as well.

³¹ PSE's Amended Petition for Decoupling Mechanisms, Docket Nos UE-121697 and UG-121705, page 17, Section G.31: "[...] Specifically, while the electric decoupling mechanism is in place, PSE will agree to achieve electric conservation five percent above the biennial targets set by the Commission, and PSE will agree to voluntarily submit to financial penalties for failing to meet this higher level of conservation achievement. [...]" (emphasis added)



²⁹ These include Annual and Semi-Annual Reports, CRAG meeting updates, responses to data requests, planning documents, etc.

³⁰ Adjusted annually for the rate of change in the inflation indicator, gross domestic product-implicit price deflator, per RCW 19.285.060(1).



Accounting for NEEA Savings

PSE's two-year electric savings target is also affected by the new Northwest Energy Efficiency Alliance (NEEA) savings reporting methodology, which is provided in the Joint Utility Proposal, filed under Docket No. UE-100177. The methodology indicates that PSE's proportion of NEEA's estimated Total Regional Savings will be subtracted from the Total Biennial Potential (as outlined in the 2013 IRP and discussed in Exhibit i: *Ten-Year Achievable Conservation Potential and Biennial Conservation Acquisition Targets*). The result will be PSE's EIA target, subject to penalty under terms of RCW 19.285.060(1) and WAC 480-109-050(1).

Subsequent to receiving NEEA's original estimate of PSE's share of the TRS,³² PSE performed detailed adjustments to the NEEA baseline. These adjustments and the methodology were reviewed with the CRAG in the October 1 CRAG meeting. The adjustments accounted for codes and standards, measures that have reached a saturation point in PSE's territory, and other factors.³³ Using these carefully considered methodologies, it is calculated that PSE's share of NEEA's regional savings is 72,533, or 8.3 aMW. This value was agreed to by the CRAG on October 1. This total is not counted toward PSE's two-year target. It is, though, reported in PSE's Biennial Conservation Report.³⁴

In the October 1 CRAG meeting, PSE agreed to continue working with the other Washington State IOU utilities to develop a consistent approach to calculating and adjusting the baseline savings for NEEA programs for future biennia.

Resulting Representation of the 2014-2015 Electric Portfolio Savings Target

Table 3a provides a summary view of the calculation elements that were considered in developing PSE's final 2014-2015 EIA target. This is a duplicate of Table 1c, presented in the Executive Summary chapter, and is provided as a reference courtesy to readers. It is also the same table that was presented to the CRAG during its October 1 meeting.



³² Based on figures outlined in the 6th Power Plan, the original NEEA estimate for PSE's proportion of the TRS was 17.6 aMW.

³³ For a complete discussion on the methodologies used to determine the NEEA 2014-2015 savings forecast, please see Exhibit 10, Supplement 1: *NEEA Savings Determination Methodology*.

³⁴ For the 2014-2015 biennium, the BCR will be filed with the WA Department of Commerce and the UTC by June 1, 2016.


Even though the formatting of lines **e**, **g** and **i** are slightly different, the totals and highlighting correspond to the subtotals in Exhibit 1's two-year portfolio view.³⁵

Table 3a: Electric Savings Target Calculation Summary

2014-2015 Electric Portfolio Savings									
	Description	MWh	aMW	Comment	Calculation				
а	Total Biennial Potential	551,880	63.0	IRP guidance (no behavior savings)	Figure 5, Exhibit i				
b	Plus legacy HER	6,420	0.7	15,000 residential HER customers	line / of Exhibit 1				
с	Total "base" savings	558,300	63.7						
d	Less NEEA	72,530	-8.3	NEEA's adjusted TRS					
е	Total Biennial EIA Target	485,770	55.5	Penalty: \$50/MWh shortfall	c - d ("base" - NEEA)				
f	Decoupling Commitment (5% add)	27,920	<u>3.2</u>	5% of "base" savings	c * 0.05 ("base" *5%)				
g	Total savings subject to decoupling penalty	513,260	58.6	Penalty: \$50/MWh shorfall	e + f (EIA target + D.C.)				
h	Individual Energy Reports (IER)	35,330	4.0	New Residential + Small Business	line <i>ab</i> of Exhibit 1				
i	2014-2015 Portfolio Total	621,120	70.9	Biennial budget is built to achieve this	c + f + h ("base" + D.C. + IER)				

D.C. = Decoupling Committment

EIA = Energy Independence Act; referencing RCM 19.285, or "I-937".

HER = Residential Home Energy Reports IER = Individual Energy Reports

IRP = Integrated Resource Plan

NEEA = Northwest Energy Efficiency Alliance

TRS = Total Regional Savings

Despite any apparent complexities of savings calculations, in its August 22, 2013 CRAG meeting, PSE committed to ensuring that all reporting is as straightforward and clear as possible, while providing full transparency.

Accounting for RTF Measures in the Savings Target

As a major proportion of Residential Energy Management's overall conservation goal (and also contributing a small portion of Business Energy Management's savings goal), another key consideration of PSE's 2014-2015 conservation goals is the examination of RTF UES measures.

³⁵ There is a difference between Table 3b and the Exhibit 1 subtotals, in that the subtotals in Table 3b are in reverse order to show calculation steps that aren't possible to illustrate in Exhibit 1.





RTF Prescriptive Measures

Condition (6)(b), requires PSE to use the Regional Technical Forum's (RTF) UES³⁶ measure savings values; unless, as indicated by condition (6)(c), evaluation data, engineering analyses, or other reliable sources substantiate the use of a different savings value. PSE consistently complies with these conditions, as outlined in Exhibits 4 and 5. Applicable to PSE conservation programs, the majority of RTF UES measures are employed by the Residential Energy Management Sector, although an increasing number of commercial RTF measures are used in the Business Energy Management Sector's Business Rebate program. The majority of small business, retrofit, new construction, and large power userself directed conservation measures though, are calculated on a per-site or per-building basis by an energy management engineer.

RTF Measure Revisions - Timing

The RTF adjusts the savings values of measures throughout the year. In planning years, PSE tracks those revisions as it sets its upcoming biennial savings target and natural gas goal. The savings target and goal are established in July of a planning year, consistent with requirements, using (where applicable) the RTF UES values in place at that time.

When the RTF adjusts those values after the target and goal are set, PSE will adjust the savings it reports in the following program year.

One example of this principle would be if the hypothetical RTF UES LED lamp savings value is 35 kWh/year in July, 2013 and the RTF adjusted the savings value for that same lamp to 32 kWh/year in November, 2013. By November, the electric savings target is set and was filed in the 2014-2015 BCP. PSE will therefore report savings for that lamp of 35 kWh during 2014. PSE will then adjust the savings, consistent the Energy Efficiency *Guidelines for Measure Revisions*, on January 1, 2015. This application of measure revision rules is best-in-class and yields a higher degree of savings reporting precision, versus applying the original savings value over the entire biennium.

³⁶ The current RTF designation for prescriptive measures is UES; Unit Energy Savings.



Why Doesn't PSE Use all RTF Measures?

As has been discussed in some CRAG meetings and in previous conservation reports,³⁷ it isn't possible for PSE to use every RTF measure. PSE uses only those RTF measures that can be accurately tracked, meet cost-effectiveness expectations,³⁸ have a solid and sustainable customer demand, are supported by contractors and trade allies, and lend themselves to effective verification. PSE frequently reviews RTF UES measures that could possibly be implemented for offering to customers and managed in a cost-effective manner.

Within the RTF measure sectors, there are measure type classifications; 39 commercial, 43 residential, 5 agricultural, and 1 industrial.³⁹ Commercial measure types are organized by end-uses, including: Appliances, Cooking Equipment, several Grocery applications, Street Lighting and Traffic Signals.

Some of the Commercial measure types do not list specific savings values, as there are ongoing analyses and review, savings values are provisional, or they are calculated; either by a Microsoft® Excel[™] template or other engineering input. Many, though, include a workbook containing multiple measure variants.

Commercial freezers, for instance, has a list of 10 measures; ranging from solid-door freezers with less than 15 cubic feet to glass-door freezers of 50 or more cubic feet.

Residential types of RTF measures include: Appliances, Domestic Hot Water, Heating/Cooling, Lighting, New Construction, and Weatherization. Several measures (such as LED Holiday Strings) were deactivated as part of RTF's continuous measure evaluation process. The residential sector has a more comprehensive list of UES measures.

³⁹ As of May, 2013. Indicated amounts exclude those measure types that are classified as "inactive" and "proposed" on the RTF website: <u>http://www.nwcouncil.org/energy/rtf/measures/Default.asp</u>. Some measures are further classified as "under review", "provisional", or "out of compliance."



³⁷ Pages 16 & 17 of PSE's 2010-2011 Biennial Electric Conservation Achievement report, filed under Docket No. UE-100177, amended October 12, 2012.

³⁸ Although the RTF indicates expected cost-effectiveness, PSE delivery methods, incentive levels, regional differences, etc. may change the final actual cost effectiveness.



For instance, there are two different sets of clothes washer measures; one for single family, one for multifamily,⁴⁰ three sets of weatherization: Manufactured Homes, Single Family, and Multifamily. There are 20 clothes washer variants; those with no MEF up to an MEF of 3.1. There are four different combinations of water heat and dryer fuel types.

There are heat pump upgrades and heat pump conversions, ductless heat pumps, and airsource heat pumps. In the Residential CFL Lighting workbook, there are 12 different fixtures and 26 lamps, including those for bathroom, hall, garage, kitchen, living room, office or "any interior" or "any interior or exterior" application.

The 58 showerhead variants range from 2.0 gallons per minute to 1.5, primary, secondary, or any shower, each with a different delivery method. There are over 220 variants of Multifamily insulation and windows⁴¹ alone; attic, floor and wall, with a wide variety of R-values and heating zones.

Accuracy Considerations

Given the number and considerable variety of different RTF measures, the key management consideration for incorporating RTF measures is: "Can Program Staff accurately track every measure variant at the risk of incurring a disallowance?" With this question in mind, it becomes clear that it isn't possible to effectively or accurately manage a suite of offerings that includes every RTF measure. The RTF updates its measure tables at irregular intervals; keeping track of each iteration for every measure table, in addition to updating the EES Tracking and Measure Metrics databases, would require a complete administrative staff. This added administrative burden, along with increased costs of producing brochures and web tools, would drive down the overall Portfolio cost effectiveness. The complexity of these offerings would also lead to customer confusion and dissatisfaction.

Adding to the complexity of such an endeavor is the high degree of management oversight that is required of contractor or vendor reporting accuracy with an increased array of measures. As measures are added, Energy Efficiency Staff must assess the ability to clearly discern unique measure attributes by customers and in the field—by contractors and Verification Team Staff—"R-0 to R-19" versus "R-0 to R-11" insulation for instance.



⁴⁰ As of May, 2013, the clothes washers in the Multifamily category is under consideration.

⁴¹ As of May, 2013, this category was classified as "Out of compliance" on the RTF measure table.



In addition to data provided by contractors and third-party administrators, reporting of many measures' savings depend on customer input (rebate application forms, etc.) to determine the exact value to report. While Program Staff have accomplished a significant number of process refinements to minimize erroneous reporting, the impact on customers must also be considered.

How PSE Implements RTF Measures

To ensure the highest degree of accuracy and mitigate the risk of potential disallowances and possible resultant penalties, highlights of PSE's strategy for inclusion of RTF UES measures includes:

- 1) Selecting those RTF measures that can be implemented, tracked and reported accurately,
- 2) Regular review of RTF measure tables for potential offering inclusion,
- 3) Participation in RTF meetings to ensure that PSE Program Staff are engaged in measure development and planning,
- 4) Choosing the most conservative value if the actual measure cannot be accurately classified,⁴²
- 5) Actively managing all tracking and reporting data, systems and databases to ensure accuracy,
- 6) Actively manage the savings adjustment process, as outlined in the Energy Efficiency *Guidelines for Ensuring the Accuracy of Electric and Gas Savings Claims.*

The Energy Efficiency department provides a comprehensive list of all resulting prescriptive measures; RTF UES and PSE Deemed, in Exhibit 5: *Prescriptive Measure Tables* of the 2014-2015 BCP.

As the RTF adds new measures, PSE may adopt those within a cycle year. When the RTF modifies existing measures,⁴³ PSE adopts those applicable to its programs at the beginning of the following calendar year, per its measure revision guidelines.

⁴³ For instance, commercial Hot Food Holding Cabinets were a PSE Deemed measure in 2010. In 2011, PSE switched to the RTF deemed savings value.



⁴² For instance, if a customer omits a piece of information on their rebate application form. This occurrence has become more limited, with Rebate Analysts' process improvements and Verification Team intervention.



Revisions implemented at the beginning of the year include measure savings values converted from PSE Deemed to RTF UES.

Portfolio Cost Effectiveness

Table 3e presents the projected 2014-2015 electric natural gas program cost-effectiveness estimates, as measured using the Utility Cost (UC) Test and Total Resource Cost (TRC). It is important to note that cost effectiveness calculations performed for planning purposes rely on measure cost, customer incentive, and savings projections. Definitive cost-effectiveness rates are finalized only after actual costs are accumulated and reported.

The first year actual cost-effectiveness results, based on 2014-2015 biennial estimates presented in this BPC will be provided in the Annual Report of Conservation Accomplishments in March, 2015.

Natural Gas Cost Effectiveness

PSE recognizes that there is considerable interest around the issue of 2014-2015 natural gas avoided costs.⁴⁴ Although electric avoided costs have trended down recently, natural gas avoided costs continue to be so low as to potentially affect PSE's ability to offer a meaningful suite of natural gas measures.

As it did in the 2013 Annual Conservation Plan, PSE evaluated the cost-effectiveness of each measure within each program, rather than only performing the tests on an aggregate program, Sector, or Portfolio level. This technique also allows for more precise adjustments. Program Staff used qualifying Non-Energy Benefits (NEBs) based on RTF values to evaluate the Total Resource Cost (TRC) of measures.

Optimization of the Portfolio included, but was not limited to:

- Adding new measures; such as web-based residential thermostats for instance,
- Reinstating windows and HomePrint[™] to the suite of residential offerings,
- Additional marketing and outreach efforts,
- Adding services such as energy assessments in a variety of Business programs through remote site audit software and expansion of Small Business Direct Install.



⁴⁴ It is noteworthy that natural gas avoided costs use a different discount rate than electric.



Program Staff also availed themselves of stipulations within Schedule 183, *Natural Gas Conservation Services*, including:

Section 4: Definitions, number y., indicates:

... [] Where there are a significant amount of Non-quantifiable Benefits (or Costs), then Total Resource Cost may be up to 150 percent (150%) of the Energy Efficiency Cost Effectiveness Standard, with a Total Resource Cost benefit/cost ratio of 0.667 or greater.

Non-quantifiable Benefits (or Costs) are defined in number o.:

Benefits (or costs) of undertaking energy efficiency improvements, as determined by society and the utility. Benefits (or costs) may included, but are not limited to: legislative or regulatory mandates, support for regional Market Transformation programs, low income health and safety, low income energy efficiency or experimental and pilot programs. The Company may use these Non-quantifiable Benefits (or Costs) to demonstrate costeffectiveness based on the Total Resource Cost Test.

The Energy Efficiency Cost Effectiveness Standard is defined as Avoided Cost in number a. of the Definitions Section of Schedule 183.

PSE also included a 10 percent conservation benefit and risk adder, consistent with the electric program requirement discussed in condition (10)(a), which states in part that PSE must demonstrate that the cost-effectiveness tests incorporate quantifiable non-energy benefits, the 10 percent conservation benefit and a risk adder consistent with the Council's approach. This application was also noted in the August 22, 2013 CRAG meeting.

PSE's application of TRC tests for the 2014-2015 biennium are also consistent with the intent of applicable Sections of the 2001 Stipulation Agreement,⁴⁵ including Section C.3, which indicates that PSE's conservation programs will be designed to achieve all savings that are cost effective, and Section C.6, which indicates that in general, each program shall be designed to be cost effective. PSE's 2014-2015 natural gas program cost-effectiveness tests are also consistent with Sections F.15, F.16 and F.17, which discuss the calculation of avoided costs and the application of those calculations to natural gas programs.

⁴⁵ Exhibit F, Settlement Terms for Conservation of the 2001 General Rate Case, Docket No. UG-011571, remains in effect. The same document that is referenced in Docket No. UE-011570 was vacated by Order 05 in Docket No. UE-100177.





By incorporating all of the allowable and available cost-effectiveness attributes for its natural gas programs, the Energy Efficiency department can to continue to offer a respectable suite of gas programs and incentives for its customers with an overall estimated Portfolio TRC benefit-to-cost ratio of 1.22.⁴⁶ Only four natural gas programs; Single Family Weatherization, Multifamily Existing, Commercial/Industrial New Construction, and Resource Conservation Management fall slightly below a TRC of 1.0.

As indicated in Table 3b, the overall Portfolio exceeds an estimated TRC of 1.0, consistent with the principle of condition (10)(a).⁴⁷ PSE therefore recommends that the Commission approve the natural gas programs and savings goals as indicated in the Plan.

Table 3b: 2014-2015 Energy Efficiency Cost Effectiveness Estimates, Sector View

Sector	UC	TRC (Includes 10% Conservation Credit)
Overall EE Electric Gas	2.25 2.04	1.63 1.22
Residential Electric Gas	2.64 2.34	1.70 1.13
Business Electric Gas	2.14 2.12	1.59 1.70



⁴⁶ The REM sector natural gas estimated TRC is 1.13, while BEM's natural gas estimated TRC is 1.87.

⁴⁷ Although condition (10)(a) applies only to electric programs, PSE has consistently applied the conditions related to the EIA to its natural gas programs. The condition does not specifically indicate that the overall portfolio must achieve at least a TRC of 1.0, it is generally understood that "… Puget Sound Energy's portfolio must pass the TRC test. …" means a TRC benefit-to-cost ratio of at least 1.0.



2014-2015 Key Initiatives

PSE will implement several initiatives in the coming biennium. Among the highlights that are discussed in more detail in the coming chapters and Exhibit 3: *Program Details*:

- In order to provide a single point of contact and make it easier for customers to do business with PSE, the Residential Energy Management (REM) created the Residential New Construction group. The group includes Program Staff from the Single Family New Construction and Multifamily New Construction teams.
- The Business Energy Management Sector created a streamlined business lighting strategy, that will significantly simplify customers' and contractors' lighting rebate application process, increase the consistency of lighting rebate amounts across all business customers, and eliminate the need for the customers and contractors to navigate very different processes for projects which may be very similar with the exception of varying electric rate schedules.
- Both REM and BEM are pursing energy report pilot programs; REM will expand into three new residential segments, while BEM will offer pilot energy reports to selected small-to-medium businesses.
- New technologies will be tested and evaluated, including Whole Building/EMIS Analysis software that Energy Management Engineers will examine in the coming biennium to determine its accuracy in identifying and assessing savings opportunities, as well as evaluate its effectiveness as an engagement tool with business customers to encourage implementation of efficiency measures.





Implementing Customer Energy Management Programs

The following discussions provide, by Sector (following the organization of Exhibit 1's Portfolio View), details of 2014-2015 Biennial Conservation Plan strategic initiatives that will be put into effect in order to meet PSE conservation targets.





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Residential Energy Management Sector

Consistent with its Total Quality Management approach, demonstrating exceptional results for over ten years, the Residential Energy Management (REM) Sector will make enhancements and revisions to several program strategies and measure offerings in order to meet its 2014-2015 savings goals.

Many of these adjustments are made in order to reflect updated RTF UES values; clothes washer and heat pump water heaters are noteworthy examples. As discussed in the following program details, some insulation measures are also adjusted, new measures are added, and a new pilot program will be evaluated. As has been discussed already in various sections of the 2014-2015 BCP, the issue of continued low natural gas avoided costs presented a particular challenge.

Rather than retire natural gas programs in the entire Sector, REM Program Staff applied cost-effectiveness analysis on individual measures, rather than a program or the entire Sector, 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. Lastly, in addition to applying a 10 percent conservation credit adder and considering programs under terms of Schedule 183 that allow programs to operate with a TRC of 0.667 or higher, REM is able to continue offering a complete suite of natural gas incentives for PSE customers.

Table 4a on the following page provides a Sector view of the estimated overall Utility Cost (UC) and TRC, in addition to the Sector savings values for the biennium.

Interestingly, no natural gas measures are retired for 2014-2015 in the Residential Sector. The addition of a new measure, Web-enabled Thermostats, will help augment the natural gas savings, in addition to the reinstatement of a natural gas HomePrint[™] offering and natural gas window measures.

REM electric program initiatives include the addition of advanced power strips using infrared (IR) technology, adding LED lamps to HomePrint[™] assessments, and an expansion of the Home Energy Reports to new residential segments.

In order to gain efficiencies within program operations and present PSE customers with a single point of contact, REM's Single Family New Construction and Multifamily New Construction programs are now classified as Residential New Construction.



This enhancement will streamline processes and break down silos. Customers won't need to keep track of whether their newly-constructed residential structure qualifies under terms of a particular program.

For 2014-2015, additional notable REM highlights include:

- At over 40 percent, lighting makes up the majority of the Sector electric savings.
- RTF UES values for CFL lamps continue their downward trend as the measure approaches a saturation point.
- Residential LED UES values are not as impactful as in past biennia.
- Air Sealing measures, including those for natural gas, will contribute a higher number of savings.

Additional details are provided in the following program overview discussions.

Table 4a provides a summary of the Residential Energy Management Sector's 2014-2015specific budgets, savings goals and cost-effectiveness estimates as stated in the 2014-2015 Biennial Conservation Plan. Constituents of these figures are noted in the following program discussions. Details of specific budget and savings changes are thoroughly reviewed in the specific budget detail sheets for each program in Exhibit 1.

Table 4a: 2014-2015 REM Conservation Targets, Budgets & Cost-Effectiveness Estimates

	Electric	Gas	Total Budget
Targets	263,930 MWh, 30.1 <i>aMW</i>	3.25 Million Therms	
Budgets	\$91.7 million	\$14.1 million	\$105.8 million
UC/TRC	2.64/1.70	2.34/1.13	





Tariff Schedule Adjustments

Residential Energy Management has no revisions to its Conservation Scheduled in 2014-2015.

Low Income Weatherization

Schedules E/G 201

The 2014-2015 Residential Low Income program, consistent with Order 07, Docket Nos. UE-121697 and UG-121705, Granting (PSE's decoupling) Petition and its associated Attachments, added \$500,000 in funding, and increased PSE Shareholder contributions by \$100,000. The program will contribute approximately 1.2 percent of the overall REM electric savings. The program's natural gas savings contribution will be nearly 1.7 percent of the overall Sector total.

Despite the loss of the Jefferson County Agency,⁴⁸ overall Low Income Weatherization production will continue to increase. PSE will also continue to fully fund selected, critical measures while state and federal funding declines, allowing agencies to ensure consistent production levels, regardless of funding type.

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
 - o Residential Lighting,
 - Home Appliances,
 - o Showerheads,
 - Home Energy Reports.

⁴⁸ As a result of the transfer of service to Jefferson County PUD in early 2013.





- Dealer Channel
 - Space and Water Heat,
 - o Weatherization,
 - o HomePrint™,
 - Fuel Conversion.⁴⁹

Retail Channel

In 2014-2015, the Retail Channel will focus on the quality of measures and initiatives over the quantity of measures. The Chanel will maximize customer value through market research intelligence, measuring success, assessing, refining, and testing. This Total Quality Management approach will accomplish:

- Increased energy-efficiency equity within stores.
- Leveraged rebate and product pricing structures.
- Knowledge of the real barriers to customer participation.
- Programs designed to meet our customers' needs.

Retail Lighting

For the 2014-2015 biennium, PSE will respond to a market that is supporting LEDs over CFLs at an increasing rate. Although the costs of LEDs continue to decrease, incentives for LEDs are still expensive. This biennium's Portfolio will trend more heavily toward LEDs than past biennia, with CFLs still comprising the majority of the electric savings. Occupancy sensors will also be introduced into the lighting portfolio. UES savings values on key measures are reduced, due in part to raising baseline values and saturation of CFLs.⁵⁰

PSE will implement a highly-focused marketing and promotional plan⁵¹ that includes:

- Collaboration with Partners; utility roundtable groups,
- Simplify the in-store buying process, focusing on point-of-sale materials,

⁵¹ Detailed marketing plans are included in the Exhibit 3: Program Details discussions and Exhibit 7: Marketing Plans.



⁴⁹ Although Fuel Conversion is included in PSE's Schedule 216, the management of the program is conducted within the Dealer Channel.

⁵⁰ For instance, an "A-Line" CFL lamp that was 33 kWh/yr, is 18 kWh/yr for 2014.



- Increase awareness of the variety of products and reviews, providing customers online resources,
- Education on the most energy-efficient lighting available,
- Store merchandising; including prime store real estate as an energy-efficiency "destination",
- Get customers to buy by creating limited-time offers in collaboration with retailers and manufacturers.

Appliances

PSE customer survey research indicates that no Energy Efficiency program has higher customer awareness than the Retail Channel's Appliance Replacement offerings. This strong substantiation will result in the refrigerator and clothes washer replacement programs making up over 50 percent of the Single Family Home Appliances program 2014-2015 savings. Similarly, the Refrigerator/Freezer decommissioning program will make up an additional 37 percent of the biennium's savings for this group.

As is the case for several other prescriptive measures, UES values will be adjusted for 2014-2015, although costs are remaining fairly constant. Clothes Washer standards are increasing, as indicated by MEF values; this will have a minimal effect though, as PSE's minimal requirements are 2.4 MEF. Refrigerator standards are also increasing by approximately 20 percent.

PSE will offer rebates and focus its marketing on the most-efficient Energy Star® appliances.

Showerheads

In this biennium, PSE will communicate a variety of showerhead purchasing options to customers and streamline the purchasing process with clear point-of-sale materials and improved online functionality. Examples include retail stores and online at Shop PSE.

PSE's engagement of our customers will focus on a quality high-efficiency showerhead. This outreach occurs at engagement events throughout our electric and electric-natural gas combined service territory. Unlike the direct-mail delivery, this delivery gives PSE a personal touch where we are able to answer customer questions and engage in other energy-efficiency messages.

PSE will partner with retailers and manufacturers to provide the best customer value such as, but not limited to; limited-time-offers and merchandising activities.





Showerheads will contribute approximately 6 percent to the Retail Channel electric savings in 2014-2015. The Showerhead program will also contribute 70 percent of the Retail Channel natural gas savings for 2014-2015.

Web-Enabled Thermostat

This offering will add approximately 23 percent of the Retail Channel's natural gas savings in 2014-2015. A web-enabled thermostat management solution will optimize customers' space heating system by combining the latest thermostat technology with behavioral tools that customers have come to easily interact with in other social applications in their life. The result will be a fully installed pre-programmed system that will engage customers with a user interface that is easier to understand and control, helping reduce their energy usage while maintaining their comfort.

Home Energy Reports

PSE will continue its limited-scope Home Energy Reports program, providing approximately 17,000 reports to participating customers. PSE will continue to evaluate this program on an annual basis, reporting total annual savings for 2014 results and incremental savings for 2015 results. The expansion pilot of Home Energy Reports to approximately 100,000 new participants is discussed in more detail in the Pilots section of the REM chapter.

Savings Contribution

The Retail Channel will contribute over 60 percent of the overall REM electric 2014-2015 savings; Residential Lighting will generate approximately 50 percent, with the Home Appliances program also being a key contributor, at over 7 percent of the Sector total.

The Retail Channel will provide over 12 percent of the overall REM 2014-2015 natural gas savings, with Home Energy Reports yielding approximately 5 percent and the new Web-Enabled Thermostats providing almost 2 percent of overall REM natural gas savings.

Dealer Channel

Space & Water Heat

The Space and Water Heat programs will comprise approximately 50 percent of the Dealer Channel 2014-2015 electric savings and 47 percent of the Dealer Channel natural gas savings.





The program will rely on traditional measures, such as Ductless Heat Pumps for both standard and manufactured homes, Forced Air Furnace-to-Heat Pump Conversion, and Heat Pump & Sizing Lockout. In the Space Heat program, PSE will enhance customer awareness through new media channels, using existing incentives. We will also drive cross-channel opportunities within the Contractor Alliance Network (CAN).

In the Water Heat program, electric water storage heater efficiency increased from EF .94 to EF .95 to align with the multifamily existing offerings; this will benefit campus-type applications. The program will collaborate with trade allies to provide direct-install measures, and drive cross-channel opportunities within CAN.

The program's natural gas savings will result from installation of 95% furnaces, boilers, fireplaces and integrated space & water heat measures. The group will contribute over 32 percent of the overall REM sector natural gas savings in 2014-2015. The considerable majority of this will be from furnaces; over 95 percent.

HomePrint[™]

The HomePrint[™] program will contribute over 15 percent of the Dealer Channel 2014-2015 electric savings. The program will introduce LED lamps into the measure mix in response to customer & trade partner feedback, providing an efficient alternative in dimmable fixtures and sockets. PSE will implement a targeted/customized follow-up mechanism with HomePrint[™] Assessment recipients to increase customer participation in recommended efficiency retrofits.

Manufactured Home Duct Sealing

The Manufactured Home Duct Sealing program will contribute approximately 17 percent of the Dealer Channel 2014-2015 electric savings. The program will introduce LED lamps into the measure mix in response to customer & trade partner feedback, providing an efficient alternative in dimmable fixtures and sockets.

Weatherization

The Weatherization program will comprise over 16 percent of the Dealer Channel electric savings in this biennium. In addition to insulation, duct sealing and window measures, the program will add an electric whole house ventilation incentive and remove the electric Attic Insulation R-19 to R-49 incentive.





The program will revise weatherization rebate levels; insulation and air sealing upward, floor insulation and duct sealing and duct insulation downward, to better correlate with measure cost-effectiveness levels. This will also reduce customer confusion.

On the natural gas side of the program, contributions to the overall REM Sector natural gas 2014-2015 savings will be over 36 percent, with Energy Star® windows making up 34 percent, and insulation, 41 percent of that total.

Measure categories will include insulation, windows, duct sealing (prescriptive and Performance Tested Comfort Systems [PTCS]), and air sealing. Weatherization will add a \$1,500 maximum windows incentive. The program will drive participation of PSE's natural gas-only customers through HomePrint[™] assessments.

Single-Family Fuel Conservation

Schedule E216

In 2014-2015, the Fuel Conversion program will enhance customer awareness through new media channels on existing incentives. The program will drive cross-channel opportunities within PSE's Contractor Alliance Network (CAN) to supplement program delivery.

Savings Contributions

The Dealer Channel will contribute over 68 percent of the total 2014-2015 natural gas savings for the REM Sector; with the key drivers being the Space Heat program, comprising 32 percent and weatherization, 36 percent of the overall Sector total.

The Dealer Channel electric conservation contributions to the overall REM Sector include over 7 percent from the Space Heat program, and over 2.5 percent each from the Mobile Home Duct Sealing and Weatherization programs.

Residential Business-to-Business Channel

The third customer-focused Channel in the REM Sector is the Residential Business-to-Business (RB2B) Channel. This group focuses on Low Income Weatherization, Multifamily Existing, and Residential New Construction. Residential New Construction is made up of Single Family and Multifamily New Construction groups.





Multifamily Existing

Schedules E/G 217

The Multifamily Existing program will contribute approximately 19 percent to the overall REM electric savings in 2014-2015. In the biennium, the three largest contributors to Multifamily Existing program will be the Direct Install program, making up 46 percent of the Multifamily Existing group's overall electric savings, with commercial lighting measures adding 16 percent, and insulation another 16 percent. Additional measure categories include LED lamps and fixtures, Common Area Lighting, and Garage CO Sensors.

The Multifamily Existing program will conduct tenant energy education outreach campaigns to increase multifamily customers' (including dwelling owners, developers, building managers and building owners) energy-efficiency awareness. The program will develop their Multifamily Air Sealing measure based on KEMA evaluation findings, and will implement contractor training and installation protocols.

The program will also develop a Tier 1 contractor referral capability, engaging with the Contractor Alliance Network (CAN) and promote PSE's contractor referral service to multifamily customers, and employ data-driven market segmentation in order to target hard-to-reach multifamily customers, who may not have the same direct access to PSE efficiency measures as building owners or managers.

Savings Contributions

The Multifamily Existing program will provide over 16 percent of the overall REM 2014-2015 electric savings, while its natural gas efforts will yield over 6 percent savings.





Residential New Construction

Schedules E/G 215 and E/G 218

particular program.52

This new-for-2014 designation is a significant benefit for PSE customers. Although the Conservation Schedules remain intact for both single family and multifamily new construction, customers won't need to know their specific rate schedule to determine whether their newly-

As a result of 2012 Energy Code implementation, in-unit lighting incentives are no longer available. The Code changes also resulted in a reduction in common area lighting incentives.

constructed residential structure qualifies under terms of a

The Multifamily section of the Residential New Construction team will bring in approximately 16 percent of the overall REM Sector natural gas savings in 2014-2015. The majority of this figure will be made up of 1.5 GPM Showerheads (40 percent) and custom-grant Condensing Boilers (30 percent), with 1.75 GPM Showerheads, solar thermal, and Condensing Water Heaters also contributing.

The return of prescriptive natural gas measures in the multifamily category will simplify program for participants. PSE expects that in 2014-2015, the number of requests for condensing boilers, condensing water heaters and showerheads in increase on the natural gas side of the program.

Savings Contributions

The Residential New Construction contribution to overall REM 2014-2015 savings will be approximately 1 percent electric and 10 percent natural gas.

There are infrequent occasions in which a PSE customer may wish to install an energy-efficiency measure in a newconstruction single-family residential structure. If this structure is located within a multifamily *campus, however, they may* be unsure of the program that will implement the measure; Single Family New Construction or Multifamily New Construction?

The new Residential New Construction group addresses that question by providing a single point-ofcontact for customers in this situation.

The creation of this group was an innovative approach to responding to customer needs and providing maximum value.

⁵² There are sometimes instances when a single-family dwelling is constructed as part of a multifamily campus. In these instances, prior to this enhancement, those customers may not know if they qualify for an energyefficiency incentive under terms of the single family, or multifamily Conservation Schedule.





Pilots

Schedules E/G 249

PSE will expand its Home Energy Report program to include three new customer segments:

- Rural, 40,000 households,
- High Relative Use, 30,000 households,
- Electric Only, 30,000 households.

Similar to PSE's Home Energy Reports program, full savings values will be reported for the first year (2014) of the measure, with approximately 10-to 20 percent incremental values reported for the second year (2015).⁵³ Each segment has a different savings value, ranging from 180 kWh to 415 kWh.

Detailed assumptions about each customer class is provided in Exhibit 3: Program Details.

58



⁵³ Natural gas savings will be zero for the second year of the measure life.



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Business Energy Management Sector

As is the case with Residential Energy Management measures, the avoided cost of natural gas will impact some Business offerings. For instance, it is anticipated that custom grants will realize a 40 percent lower natural gas savings in 2014-2015.⁵⁴ In response to depressed avoided costs and the current market conditions, Program Staff will implement several creative solutions. These include the expansion of natural gas offerings in the Energy Smart Grocer program, and engaging with selected business customers, utilizing whole building/EMIS software analyses to indentify and promote implementation of cost-effective efficiency measures, with the expectation that increased exposure will lead to greater program participation.

The Business Energy Management Sector will apply the same cost-effectiveness test principles as the Residential Energy Management (REM) Sector to its natural gas programs,⁵⁵ including incorporation of a 10 percent conservation credit, and water-saving quantifiable Non-Energy Benefits to several offerings. As a result, while two programs' Total Resource Cost (TRC) benefit-to-cost ratio is estimated to be slightly below 1.0, the overall Sector TRC is estimated to be 1.87.

BEM Program Staff also applied creative adaption to their electric programs as well. The most significant electric program change is streamlining of business lighting processes; providing a noteworthy reduction in the application paperwork required of small business customers by merging all business lighting incentives into a single application process. This improvement is expected to yield additional savings, maximize customer satisfaction, and improve trade ally relations. LED advancements will contribute an increasing proportion of lighting savings. BEM will test a new Energy Report (similar to Home Energy Reports in REM) pilot aimed at small-to-medium businesses.

⁵⁵ Please see pages nn in the Developing the 2014-2015 Biennial Conservation Plan chapter and page nn in the Residential Energy Management Sector chapter for a full description of TRC test considerations.



⁵⁴ C/I Retrofit 2012-2013 BCP natural gas savings versus C/I Retrofit 2014-2015 BCP natural gas savings comparison.



While the majority of BEM program offerings remain consistent into 2014-2015, the following key new offerings are noteworthy:

- Strategic Resource Management This program will make available a contracted energy services professional that provides RCM services to aggregated sets of customers who are too small to qualify or unable to participate on their own. This is expected to increase number of customers participating in RCM by approximately 40 percent.
- 2) Remote Energy Auditing As part of the Technology Evaluation schedule, in 2014-2015 Business Energy Management will utilize EMIS/Remote Site Auditing software to provide automated energy auditing services to targeted customers, providing data on the effectiveness of "remote auditing" tools at identifying and analyzing potential savings opportunities and serving as a customer engagement tool to encourage participation in PSE's energy efficiency programs.

Table 5a provides a summary of the Business Energy Management Sector's 2014-2015 BCP budgets, savings goals and cost-effectiveness estimates. Constituents of the figures are noted in the following program discussions. Details of specific budget and savings changes are thoroughly highlighted in the specific budget detail sheets for each program in Exhibit 1: 2014-2015 Budgets and Savings.

Table 5a: 2014-2015 BEM Conservation Targets, Budgets & Cost-Effectiveness Estimates

	Electric	Gas	Total Budget
Targets	243,130 MWh, <i>27.8 aMW</i>	2.92 Million Therms	
Budgets	\$68.4 million	\$7.5 million	\$75.9 million
UC/TRC	2.14/1.59	2.12/1.87	
UC/TRC	2.14/1.59	2.12/1.87	





Tariff Schedule Adjustments

The following Tariff Schedules are revised effective January 1, 2014:

- Schedule E255, Small Business Lighting is cancelled and its offerings are now implemented through the Commercial/Industrial Retrofit (E/G 250) and Business Rebates (E/G 262). Small Business Lighting applications received through December 31, 2013 will still be honored if projects are completed by June, 2014, therefore incentive payments and program administration costs are budgeted in the BCP for program closeout activities that will occur in 2014.
- Schedule E/G 253, Resource Conservation Management is revised. The RCM salary guarantee is removed due to lack of customer participation⁵⁶ and increased administrative costs required to track this incentive. The Schedule title is changed from Resource Conservation Manager to Resource Conservation Management to better reflect the nature of this program and sources of resource savings resulting from customer participation in the program.

Pilots

Schedules E/G 249

The Business Energy Management Sector will engage in a Small-to-Midsize Business Energy Reporting pilot. The goal of the pilot is to evaluate the operational savings achievable in this sector through energy reports, as well as increase participation in commercial efficiency programs while improving the relationship between PSE and Small-to-Midsize Business customers. Conducted by OPower, who also manages PSE's Home Energy Reports program, this pilot will include directly-mailed Business Energy Reports providing comparisons to "normal usage" for like business types as encouragement for business customers to better manage their energy usage. The reports will include usage analyses, energy best practices, case studies, and collateral material businesses may use to encourage efficient behavior and operations.

It is planned that selected customers will also have access to a web portal. The pilot is planned to provide 10 reports over an 18-month period. It is anticipated approximately 10,000 Small-to-Midsize Business customers will be selected to receive energy reports in this opt-out program.



⁵⁶ The program has never paid a salary guarantee.



It is anticipated that the pilot will result in quantifiable electric energy savings, but will be subject to a rigorous evaluation which may impact the planned design and implementation of this pilot.

Commercial/Industrial (C/I) Retrofit

Schedules E/G 250

Electric

The team of EMEs, supervisors and contract administration staff expect to process over 800 custom grants during this upcoming biennium. In addition, the staff will provide evaluation support, and participate on RTF subcommittees and NEEA advisory committees.

The C/I Retrofit program will include three contracted programs leveraging expertise of third party providers in the following specialty sectors: grocery, industrial/manufacturing and data centers. PSE will pay the contractors administrative fees and will pass-through incentive payments; the contractors will use Ratepayer funds furnished by PSE to pay applicable incentives to eligible customers.

In the grocery energy efficiency program, customers will receive:

- No-cost energy audits,
- Customized energy savings reports,
- Direct installation of low-cost measures,
- On-site project guidance,
- Contractor bid reviews,
- Financial incentives.

Deliverables in the industrial/manufacturing efficiency program will include:

- Project scoping,
- Development of savings verification approach such as installation of a Performance Tracking System (PTS),
- Systems optimization tune-up event,





- Implementation support,
- Low-cost action item implementation,
- Sustained savings verification,
- Financial incentives.

The data center energy efficiency program will provide:

- Data center audits,
- Sub-metering and data logging,
- Comprehensive approach,
- Tiered incentive structure,
- Project technical support,
- Facilitated implementation,
- Performance monitoring.

A significant enhancement to C/I Retrofit and overall BEM operations is the consolidation of business lighting into the C/I Retrofit program. This is an important benefit for PSE customers. The improvement will reduce the amount of application paperwork that small businesses need to complete, reduces the confusion about PSE offerings among customers and trade allies, and eliminates the need for customers to be expert in the energy-efficient measures and rate Schedules. The new program design will feature a single application for all lighting incentives, with calculated lighting measures receiving incentives through the C/I Retrofit Program. Prescriptive lighting measures with deemed savings, which will appear on the same application form, will be funded through Schedule 262 Business Rebates.

Lighting retrofit projects are anticipated to remain strong in 2014-2015, with advancements in LED technologies and enhanced incentives for comprehensive lighting upgrades positively impacting these results.

The Comprehensive Building Tune-Up program is expected to grow in the 2014-2015 biennium, due in part to streamlined documentation requirements and an improved incentive payment structure. PSE will continue offering "regionally established" programs with which customers and trade allies located throughout the Northwest are familiar; these programs include comprehensive audit and implementation services in the grocery and industrial/manufacturing sectors.



The remainder of Commercial/Industrial Retrofit activity will be comprised of commercial non-lighting projects, predominately consisting of HVAC and controls upgrades, as well as data center energy efficiency measures. The majority of industrial savings will be predominately delivered via third-party programs and Schedule 258 Large Power User/Self-Directed activity.

Natural Gas

Although natural gas retrofit projects have been in decline, application of the alternative TRC test threshold will maintain the strength of the program.⁵⁷

Savings Contribution

The Commercial/Industrial Retrofit group will contribute almost 55 percent of the 2014-2015 electric savings to the BEM Sector. C/I Retrofit will deliver over 22 percent of the overall BEM natural gas savings in 2014-2015. Notably, the grocery sector energy efficiency program will provide approximately 18 percent of the C/I Retrofit savings.

Commercial/Industrial New Construction

Schedules E/G 251

Electric and natural gas customer incentives will include:

- **Component Measures:** Which include custom analysis funding of individual measures, and may be up to 100 percent of incremental cost to exceed code,
- Whole Building Analysis: (For natural gas customers, PSE must also provide electric service.) These incentives are based on the percent savings over code baseline as determined by building energy simulation analysis,
- **Rebates:** Include prescriptive rebates for incremental upgrades exceeding code requirements,
- **Commissioning:** These are incentives for independent third-party commissioning, with an emphasis on post-occupancy building performance,
- Grocery Sector Incentives:⁵⁸ PSE provides technical assistance and financial incentives for grocers who exceed code requirements and industry standard practice.

⁵⁷ As discussed on pages 42-43, Customer Energy Management will make use of definitions and terms within Schedule 183, Natural Gas Conservation Service, Sections 1: Purpose, and 4: Definitions (#aa; Total Resource Cost Test), that indicate that in some cases, a program's TRC benefit ratio may be 0.667.



Due to the long planning and development timeline for new construction projects and recent resurgence in construction planning activities, much of program staff time in 2014-15 will be spent working on projects that will deliver savings in 2016 or beyond.

Savings Contribution

The C/I New Construction program will deliver approximately 2 percent of the overall electric BEM Sector savings and almost 1 percent of the Sector's natural gas savings in 2014-2015.

Resource Conservation Management

Schedules E/G 253

Electric

The RCM program expects to enroll approximately 40 additional customers with the implementation of its new Strategic Resource Management offering. In 2014, a third-party contractor will provide on-site facilitation of RCM services directly to customers. PSE will target mid-size customers with multiple facilities not meeting square footage and energy usage thresholds for participating RCM customers.

In the 2014-2015 biennium, the RCM program will continue to offer:

- Program start-up support,
- Resource accounting software,
- Technical assistance,
- Education and training,
- Energy data services,
- Financial incentives.

Natural Gas

All natural gas savings will be from RCM participants, as the new third-party contracted Strategic Resource Management program will focus only on electric savings.



⁵⁸ Grocery sector incentives are provided by the same third party implementer for both the Retrofit and New Construction environments.



Savings Contribution

The Resource Conservation Management program will contribute approximately 12 percent of BEM's electric savings in 2014-2015. The RCM program will contribute 24 percent of BEM's overall natural gas savings for 2014-2015.

Large Power User Self-Directed

Schedule E258

The Large Power User/Self-Directed program will contribute approximately 7 percent of BEM's electric savings in 2014-2015. The current program cycle ends in December, 2014, with all projects of the current cycle expected to be under contract prior to the start of the 2014-2015 biennium. The new program cycle will begin with an RFP release in 2015.

Technology Evaluation

Schedules E/G 261

Under this schedule, PSE will evaluate Whole Building/EMIS Analysis Software as it relates to:

- The benefits or barriers of integrating "remote site analysis" capabilities into existing business efficiency programs,
- The accuracy of software load disaggregation algorithms & efficiency measure identification/analysis,
- Programmatic effectiveness of using the software as a screening/engagement tool,
- Potential use in pay-for-performance (PfP) and/or feed-in tariff (FiT) programs.

This technology evaluation has the potential to save approximately 1 million kWh per year, through identification of quantifiable operational savings activities, beginning in 2015. Capital projects identified through utilization of Whole Building/EMIS Analysis Software will be funded through the C/I Retrofit program.





Commercial Rebates

Schedules E/G 262

Electric

The program will place an increased emphasis on direct-install offerings for enhanced customer service, and high-volume rebate processing is slated for outsourced process to reduce customer waiting time for payment while simultaneously freeing up PSE in-house program staff to support program management, verification and evaluation activities.

The Small Business Direct Install program will be expanded in 2014-2015 to achieve greater participation in this hard-to-reach customer segment. The program will provide no-cost energy assessments and direct installation of cost-effective measures, including the following common cost-effective measures:

- T12 to T8 linear fluorescent retrofits,
- CFL & LED installations (display & track lighting popular),
- Hand washing sink aerators,
- Refrigeration measures,

at no cost to customers. An expected benefit is that through this program, customers will be introduced to other BEM programs.

Due to variability in savings based on site conditions, variable speed drives will now be managed through the custom grant process. UES values of Pre-Rinse Spray Heads and low—flow faucet aerators are updated for 2014-2015, and PSE expects that Pre-Rinse Spray Head installations will reach saturation during the biennium. Additionally, PSE will utilize the Contractor Alliance Network (CAN) to augment implementation of Premium HVAC Service for participating customers.

Throughout the first part of 2014, BEM will continue to process rebate applications from the nowcancelled Schedule 255, Small Business Lighting.

Through the end of 2013, eligible customers and their lighting contractors may submit rebate applications. Until the projects are completed, verified, or inspected, those applications are still valid and payable.

It is anticipated that payments will be completed by the end of the first half of 2014.





Natural Gas

Three programs within the group will be implemented by third-party contractors; Premium HVAC Service, Pre-Rinse Spray Head & Aerator Direct Install, and Small Business Direct Installs.

Savings Contribution

The Commercial Rebate Program will contribute almost 22 percent of the overall BEM 2014-2015 electric savings. The Commercial Rebates group will contribute the majority of BEM's natural gas savings in 2014-2015; over 50 percent.





Regional Programs

Northwest Energy Efficiency Alliance

Schedules E254

NEEA's updated operational plan for 2014-2015 is included in this BCP as a standalone document, Exhibit 10. A complete discussion of the methodology used to determine the 2014-2015 NEEA savings forecast of 8.3 aMW is found in Exhibit 10, Supplement 1.

PSE extends its appreciation to the NEEA Staff for their gracious cooperation, and the additional effort and resources expended to develop this content.

Distribution Efficiencies

Schedule E292

This initiative is consistent with the Company's IRP, which indicates that the ten-year conservation potential and two-year target includes efficiency gains in generation and distribution facilities within the state, and complies with the definition outlined in RCW 19.285.030(4):

"Conservation" means any reduction in electric power consumption resulting from increases in the efficiency of energy use, production, or distribution."

Plans include implementation of Conservation Voltage Regulation (CVR) at substations most likely to provide cost-effective energy savings to customers from this added level of monitoring and control. The plan for CVR implementation includes required system upgrades, implementation of RTF prescribed measurement & verification protocols, as well as the required phase-balancing work which is a precursor to successful CVR implementation. Additionally, PSE will continue to pursue specific cost-effective generation plant energy efficiency projects consisting mainly of lighting upgrades. Exhibit 3, Program Details, provides an overview of how PSE will execute the necessary efficiency initiatives. These programs will operate under Schedule 292 and require coordination between various PSE departments.

2014-2015 program targets in the BCP are based on implementation of CVR at 12 substations. However, program accomplishments have been limited by budget constraints and competing system improvements. Please see Exhibit 1 for more detail.





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November 1, 2013 71



Portfolio Support

One revision to the Portfolio Support section of Exhibit 1: 2014-2015 Budgets and savings is the relocation of Marketing Research to the Research & Compliance section. Additionally, the name is revised from "Marketing Research" to "Market Research". Additional details will be provided in the Research & Compliance overview discussion in the following pages.

Tariff Schedule Adjustments

The following Tariff Schedule is revised for 2014:

Natural gas Schedule 207 is revised. The Schedule number will change, effective January 1, 2014 to Schedule 202.⁵⁹ This is the same Schedule number as the electric Energy Education Schedule. This is the only revision to the Schedule, and is made for straightforward program reference.

Customer Engagement & Education

The Customer Engagement & Education section is comprised of four organizations; Energy Advisors, Events, Brochures, and Education. Each function is focused on providing information on a broad range of energy-efficiency topics, rather than program-specific information (although energy advisors have a high degree of expertise in the majority of REM and BEM programs).

Energy Advisors

The Energy Advisor department will continue to locate EA Staff in local PSE offices, in addition to the Bellevue-based team; including Olympia, Bellingham and South Whidbey Island. The Staff are implementing new outreach methods, including outbound calls for HomePrint[™] customers. New metrics will also be put into place to show customer trends.

Events

The Energy Efficiency Events team will continue to manage requests from communities, trade shows, and other interested organizations for PSE's Energy Efficiency department participation in approximately 200 events per year.



⁵⁹ It is interesting to note that the natural gas tariff sheets are designated with a "1" in front of the Schedule number. Thus, the natural gas Schedule 202 tariff sheet number is read "1202".


The team will provide materials and moving services for customer interactive displays, using a tracking database to ensure consistent and accurate logistical flow. Major conferences planned for the 2014-2015 biennium include the West Coast Energy Management (2014) and the Powerful Business (2015) conferences.

Brochures

This Energy Efficiency department category includes brochures that are not programspecific; home improvements, controlling moisture, energy-savings tips, energy-savings appliances, and a variety of brochures for non English-speaking customers, for instance. This function will continue to re-print, replenish and distribute these brochures to customers using continuously-improving methodologies.

Education

Schedules E/G 202

A key revision to the Energy Education program for 2014-2015 is that HopeLink chose to discontinue their participation, as they were not in a position to renew their application for another year. PSE will continue its Independent Colleges of Washington grants and support for energy education Senior Design Projects.

Customer Online Experience

The Customer Online Experience section is comprised of two teams that ensure that PSE customers are provided with fast and reliable access to energy-efficiency resources through a wide variety of internet vehicles. The functional groups are Web Experience and Market Integration.

Web Experience

In the 2014-2015 biennium, online tools will be upgraded. Enhancements will include an improved online energy analysis tool, which will be linked to the myPSE account, with a mobile web and mobile app function. Additional energy analysis tools will also include interactivities. Electronic newsletters (E-Newsletters) will continue to be tailored to homeowners, builders, contractors, and trade allies.





Market Integration

For 2014-2015, there is an increased number of staff supporting Energy Efficiency web services and offerings. Despite the increase in staffing, the actual labor expenditures will decrease from the previous biennium, as the Communications Staff assigned to Energy Efficiency offerings will be more limited and focused on their deliverables.

Automated Benchmarking System

This new service; called myData, provides building owners an easy-to-use, self-service portal that allows them to set up automated monthly report of their building's energy usage. In 2014-2015, myData can be used to:

- Track energy usage for a portfolio of buildings,
- Track the results of energy efficiency projects,
- Develop Energy Star ratings, and
- Comply with City of Seattle reporting requirements.

Energy Efficient Communities

The Energy Efficient Communities team partners with and adds value to many organizations within the Energy Efficiency department. These include the Events and Energy Education teams, as well as the Residential and Business Energy Management organizations. In the 2014-2015 biennium, the Energy Efficiency Communities team will emphasize proactive, direct residential and business customer outreach, with an emphasis on in-person engagement. This strategy will augment the other forms of energy-efficiency exposure that customers receive, including telephone contact, internet (including social media), and print. The team will partner with other PSE organizations to promote energy-efficiency programs.

- Customer engagements will include, but will not be limited to:
 - o Small Business Direct Install blitzes,
 - o Door-to-door HomePrint[™] outreach,
 - Cross-program promotions,
 - o Leveraging corporate initiatives to promote energy efficiency,
 - Training PSE employees in other customer-facing departments on energyefficiency programs.





Trade Ally Support

In 2014-2015, the Trade Ally Support team will support broad-based support services for energy-efficiency programs, including:

- BOMA: Building Owners & Managers' Association,
- CEE: Consortium for Energy Efficiency,
- Electric League,
- ESC: Energy Solutions Center,
- NEEC: Northwest Energy Efficiency Council.





Research & Compliance

As noted in the Portfolio Support section overview (page 71), Market Research was relocated to the Research & Compliance section for the 2014-2015 biennium. This revision was sensible, in keeping with PSE's continuous improvement principles; the functions and activities performed by this group do not provide a service for customers (although the group routinely engages customers in surveys and other studies). As this group's primary function is research, it was logical to relocate it to its new section.

It is important to note that, despite the revision, the function's activities and budget allocation methodology, relative to the Conservation Service Rider, are in no way altered.

Tariff Schedule Adjustments

There are no affected tariff Schedules in the Research & Compliance group.

Conservation Supply Curves

The 2014-2015 focus of this group will be to select a consultant for the 2015 potential assessment, and providing staff support for the development of the 2015 Integrated Resource Plan (IRP).

Strategic Planning

The Strategic Planning group's 2014-2015 primary activities will include an oversample of regional Commercial Building Stock Assessment and continued implementation of more efficient research methods. For the upcoming biennium, there will be lower labor expenditures.

Market Research

The Market Research activities include energy-efficiency customer satisfaction surveys and tactical program target-marketing support. The 2014-2015 budget is lower than the previous biennium as a result of better alignment with program team needs, improved tools, online panels, and the use of secondary data.

Program Evaluation

Exhibit 6: Evaluation Plan, describes an ongoing process for prioritizing measures and programs, as well as the four-year timetable to evaluate all Energy Efficiency programs, consistent with condition (6)(f).





The Plan focuses on evaluating programs with out-of-date evaluations, programs that have never been evaluated, pilots, and Home Energy Reports. The 2014-2015 Program Evaluation budget is lower than 2012-2013 as a result of the reduced scope of natural gas programs. There was also significant evaluation work performed in 2012-2013.

Exhibit 6 provides a detailed table of evaluations planned for the upcoming biennium.

Verification Team

The Verification Team will perform on-site inspections and confirmations of randomlyselected participated homes and business to assure energy-efficiency measures are properly installed. The Team will ensure that verification policies, protocols, guidelines and processes are maintained. Supporting mainstream field work in 2014-2015, Verification enhancements will include the following:

1) Data Systems

The Verification tracking and scheduling database will be closely aligned with the CMS tracking database to continue simplifying and automating the project sampling and job-pulling process. This streamlines workflow between the program and verification teams.

2) Sampling Rates

Verification sampling rates will be based on installation forecasts from the program teams and anticipated compliance/discrepancy rates. These forecasts are anticipated to be finalized subsequent to the filing of the 2014-2015 BCP. In the last biennium, though, over 2,000 random verifications were forecast, and the Verification Team anticipates that the upcoming biennium will require a commensurate number, based on savings goals. Individual measures/programs will each have a target number of verifications. Reviewing compliance rate results will inform Program Staff in the continued management of process improvements, data integrity, savings validity, and program delivery efficiency.

3) Additional Verification Measures

The Verification Team will continue to assist in other areas of Residential or 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 discrepancies for program management follow-up. Additionally, new measures/programs are planned for the Verification portfolio, including phone Verification for Appliances Recycling and Decommissioning, and site verification for Business Rebates-Commercial Kitchens.





Program Development

In 2014-2015, the Program Development team will provide program planning, development and support functions for Energy Efficiency program implementation Staff. The group will also provide infrequent demand response and related customer load control research as opportunities present themselves.

The Program Development team will provide NEEA-PSE savings attribution coordination, tracking and reporting, and will provide RTF subcommittee participation support.





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Other Electric Programs

"Other Electric Programs" is segregated from other Customer Solutions Electric and Gas Rider programs because they are not used in calculating cost effectiveness of the overall Portfolio.

Tariff Schedule Adjustments

The following Tariff Schedules are revised for 2014:

Schedule 248, Renewable Energy Education is cancelled. The services formerly provided under this Schedule are now addressed in the Green Power Program and Net Metering.

Net Metering

Schedule E150

It is anticipated that the regional interest in customer renewables, and net metering in particular will maintain the pace of 2013, when over 500 customers were added in 2013. As a result, it is necessary to increase the staff of the Net Metering program by 0.5 FTE in 2014 to ensure sustained customer support.

Commercial/Industrial Load Control

Schedule E271

The 2012-2013 IRP Demand Side Resource RFP produced bids that were not competitive with supply-side capacity resources in the short term. PSE will continue to research and develop demand response and customer load control resources, including ancillary services on a trial basis, where appropriate. Budgets for these activities are suspended for the 2014-2015 biennium. Any staff labor will be accounted for in the Program Development function.





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Exhibit Summary

This section provides a brief overview of the contents of each Exhibit included with the 2014-2015 Biennial Conservation Plan.

Exhibit i: Ten-year Achievable Conservation Potential and Biennial Conservation Acquisition Targets

The 2014-2023 Ten-year Achievable Conservation Potential and 2014-2015 Biennial Conservation Targets document provides detailed discussion on the development of the ten-year achievable conservation potential and two-year conservation target.⁶⁰ The document may be referenced as "The Ten-year Potential and Two-year Target", "Two-year Target", or "2014-2015 Biennial Target". Each designation has the same meaning for purposes of referencing the 2014-2023 Tenyear Achievable Conservation Potential and 2014-2015 **Biennial Conservation Targets.**

PSE reviewed the majority of the two-year target development points with the CRAG throughout the latter half of 2013. Additionally, many CRAG members also participated in the Integrated Resource Planning Advisory Group (IRPAG) meetings between 2012 and 2013.

When there is a need to add an Exhibit, emphasis is placed on doing so in a manner that maintains the logical flow of Plan information. Each Exhibit should build on the information provided in the prior Exhibit and be able to answer the question: "On what information in this Exhibit based?"

An example is Exhibit i: Ten-year Achievable conservation Potential and Biennial Conservation Acquisition Targets. Logically, this information should precede Exhibit 1: Savings and Budgets. When the Exhibit was initially created, though, Exhibits 1 through 9 were already created and named. It was pointless to name it "Exhibit 10", as that would have been completely out of sequence. In the 2010-2011 BCP, it was simply known as the "Unnamed Exhibit", which caused Stakeholders reference difficulty in their filing comments.

Rather than re-number the Exhibits (defeating the main objective of maintaining continuity from planning to reporting documents), PSE elected to use a tenet employed for prefaces or tables of content: the small Roman numeral sequence (i, ii, iii, iv, etc.). This way, PSE was able to insert the Exhibit is its logical place without disturbing the other Exhibits.

⁶⁰ This document only discusses electric conservation.





Exhibit i indicates that PSE's 2014-2033 ten-year achievable electric conservation target is 2,730,408 MWh, or 311.7 aMW and the 2014-2015 two-year electric conservation target is 485,770 MWh, or 55.5 aMW of first-year savings, as measured at the customer meter. The natural gas 2014-2015 biennial target is 9.55 million therms.

Exhibit 1: Sector-Level Budgets and Conservation Goals

As previously indicated, PSE largely maintained its Exhibit 1 format, first established in the 2011 ACP, in order to provide Stakeholders with a consistent view of Energy Efficiency program budgets and savings details. This allows readers to compare actual results (from the Company's Annual Conservation Reports) to planned goals and budgets. In keeping with its TQM principles, it is PSE's intention to enhance the presentation of the budget and measure details with each iteration, taking into account development and reporting efficiencies for PSE Staff, and Stakeholder needs, requests and observations.

"Total" figures noted in the top horizontal budget detail sheet tables are calculated using the 2014 budget number plus the 2015 figure. The "original 2013" budget figures are included for comparison purposes only.

As a courtesy, and to enhance Stakeholders' reviewing experience, PSE also incorporated sub-total comparisons to the 2012/13-specific figures in the 2-year Sector views.

Among several other document enhancements, PSE also added year-specific Portfolio and Sector pages for both electric and natural gas. These six additional tables (two Portfolio and two each Sector electric and natural gas views) will prove beneficial when the 2015 Annual Conservation Plan is presented in November 2014. This enhancement is also consistent with condition (4)(a), providing a 2014-specific annual budget and conservation target view.

The Exhibit 1 electronic Microsoft® Excel[™] workbook employs hyperlinks for over 90 worksheets, facilitating direct comparisons and reference for Stakeholders without the need to navigate tab-by-tab. Some of the more notable improvements include:

- To further enhance the program review process, PSE added the program name and order number along the top and side borders of each program's budget detail page. This way, if a reader scrolls to one extreme or the other of the detail page, they will maintain awareness of the program being reviewed.
- Added buttons that further facilitate navigational prowess and reduce the need to return to Portfolio views before proceeding to the next desired program.
- Button names are more intuitive.





Exhibit 2: 2014-2015 Cost Effectiveness Estimates

Table 3b on page 44 (Chapter 3: *Developing PSE's 2014-2015 Biennial Conservation Plan*) provides PSE estimates of the Portfolio-level cost effectiveness of its electric and natural gas programs. Individual program calculations are provided in the Microsoft® Excel[™] workbook and can be accessed using the indicated hyperlinks in the summary pages, similar to Exhibit 1's navigation.

Exhibit 3: Energy Efficiency Program Details

Discussions of program-level strategies and tactics are located in Exhibit 3: Program Details. It is interesting to note that PSE maintains a running version control number (for instance, "**version**: two **replacing version**: one") in the footer section of Exhibits 3 and 4. This version number tenet commenced with the 2011 Annual Conservation Plan filing.

Each program that generates conservation savings⁶¹ contains an overview of program elements:

- The purpose of the program,
- The program description,
- The program's target market,
- An overview of customer incentives,⁶²
- The marketing plan,⁶³
- Outreach plan.



⁶¹ Programs or functions such as Evaluation or Conservation Supply Curves do not generate savings and for the most part, do not interface with PSE customers. Therefore, program elements such as *Customer Incentives* and *Target Market* do not apply to these.

⁶² A detailed listing of customer incentives is contained in Exhibit 4: *Energy Efficiency Measures, Incentives & Eligibility.*

⁶³ A broader discussion of the Energy Efficiency Marketing Plan can be found in Exhibit 7: *Marketing Plan*.



Exhibit 4: Energy Efficiency Measures, Incentives & Eligibility

Exhibit 4 provides, by program and by fuel type, all incentives Energy Efficiency will offer as of January 1, 2014-2015.

Exhibit 4, similar to all Energy Efficiency Exhibits, is organized by Sector (Residential, Business, Other Electric Programs), by Conservation Schedule number. It outlines, in tabular format by end-use type, the measure types available to PSE customers. In the same manner as Exhibit 3, PSE maintains a running version control number in the footer section of Exhibit 4.

It is important to note that—given the BCP filing timeline requirements—the document revision that typically occurs quarterly is not prepared in Q3 or Q4 of the year. Due to the timing of filing requirements, the January 2014 document filed with the 2014-2015 BCP would actually be older than the Q3 and Q4 2013 update if PSE maintained this sequence, as the 2014 version is prepared in the early part of Q3. All measure adjustments planned or implemented in Q3 and Q4, 2013 are reflected in the January, 2014 version.

Exhibit 5: Energy Efficiency Prescriptive Measures

Exhibit 5 represents the savings values that PSE will use for eligible prescriptive measures in 2014-2015. It is important to note that when PSE plans and files its conservation plans, not all UES measures have been updated by the RTF, or are in the process of being updated at the time that PSE is required to file the BCP. Therefore, some measure savings values listed in Exhibit 5 may not align with RTF UES values currently noted at the RTF website. In 2014, PSE will use the savings values noted in the REM Exhibit 1 budget detail tables and Exhibit 5. Any necessary adjustments will be made to the savings values at the beginning of 2015, consistent with PSE's *Measure Revision Guidelines*.

Exhibit 6: Energy Efficiency Evaluation Plan

Exhibit 6 provides a view of all efficiency program evaluations planned over a four-year cycle, along with guiding principles of the evaluation team.

Exhibits 7: Marketing Plan

The Energy Efficiency Marketing Plan, Exhibit 7, Includes overarching views of marketing strategies that PSE will employ to call customer to action and motivate them to install energy efficiency measures and engage with PSE on energy efficiency initiatives. Exhibit 7 should be used as a partner to the program-specific marketing plans discussed in Exhibit 3.





Exhibit 8: EM&V Framework

The EM&V Framework is included as Exhibit 8 to the Biennial Conservation Plan. Exhibit 8: EM&V Framework provides discussions on how PSE will conduct evaluation, measurement and verification activities to estimate savings and other metrics associated with its Energy Efficiency department programs.

Exhibit 9: Condition Compliance Checklist

Exhibit 9: Condition Compliance Checklist, as presented in the 2014-2015 BCP, indicates the status of 2012-2013 conditions, including criteria for condition compliance, the means by which PSE has met the condition, and completed and in-progress deliverables. PSE included the past biennium's status in order to inform Stakeholders as to the readiness to implement 2014-2015 conditions.

As readers will note, all 2012-2013 conditions, with the exception of those with a 2014 deliverable date, are complete, or will be completed by year-end 2013.

In addition to the green check mark, \checkmark indicating the completion of a particular requirement, PSE also includes three other status icons, the hour glass, signifying that the requirement is in progress, the yellow check, indicating that a requirement is completed and is awaiting confirmation, and the red x, \checkmark signifying that the requirement was not completed.

In 2013, as a courtesy to Stakeholders, PSE added the natural gas-specific requirements enumerated in the 2001 Stipulation Agreement to the Checklist, ensuring that Stakeholders maintain visibility of all PSE conservation-related requirements. Thus, it is noteworthy that the checklist is no longer a strictly EIA-centric document.

As noted in Chapter 11: *Compliance*, page 92, PSE will clear the status of all conditions at the beginning of 2014. However, conditions (6)(g), which is 66 percent completed by yearend 2013, and those conditions that PSE terms "standard business practice" and have no set deliverables will maintain a "completed" status.

Exhibit 10: Northwest Energy Efficiency Alliance Plan

Formerly incorporated within Exhibit 3: *Program Details*, NEEA plans and reports will be a standalone document. Treating this document in this manner reflects the significant effort expended by NEEA Staff to create these references for inclusion in PSE filings.





Exhibit 11: Tariff Revisions

In the 2012-2013 BCP, Tariff revisions were located in an unnamed Exhibit. In the 2013 ACP, PSE created Exhibit 11 to assemble its revised Conservation Schedules. Tariff updates will be filed with the UTC in a similarly timed filing, formatted according to RCW 80.28.040 & 050, and WAC 480-80. Following approval by the Utilities and Transportation Commission, and made effective on January 1, 2014, it will not be necessary to list them separately as an Exhibit, as they will be posted on PSE.com as separate documents. This practice will not alter the numbering sequence of preceding Exhibits.

It is important to note that only those Tariff Sheets being revised are filed, rather than the entire Schedule or complete set of Conservation Schedules.





Compliance

In 2014-2015, PSE will sustain its continued standard of meeting—and frequently exceeding—electric and natural gas conservation targets since 2002,⁶⁴ when the Company's electric conservation target was 9 aMW (78,840 MWh) and its natural gas conservation target was 700,000 therms.

Throughout that time, third-party reviews and evaluations, investigations—including on-site visits from UTC Staff and other Stakeholders, and independent auditors,⁶⁵ found that PSE is consistently in complete compliance with laws, rules, and condition requirements. Since 2002, no audit findings were recorded during these reviews. In fact, the Energy Efficiency department often exceeds compliance requirements—and even earns accolades for its customer focus and process benchmarks.

Compliance with RCW 19.285

This BCP and its Exhibits are consistent with RCW 19.285.040 (1)(a), which indicates that utilities must identify their achievable cost-effective conservation potential, reviewing and updating the assessment every two years thereafter. The BCP also satisfies § (b), which states that utilities shall establish and make publicly available a biennial acquisition target for cost-effective conservation consistent with their identification of the achievable opportunities.

Compliance with WAC Rules

WAC 480-109-010(3)(a) indicates that PSE must indicate the extent to which commission staff [sic] and the public participated in the conservation metrics.



⁶⁴ 2002 is a significant milestone in PSE's energy-efficiency programs. The Stipulation Agreement, Exhibit F in Docket numbers UE-011570 (since vacated by Order 05 in Docket number UE-100177) and UG-011571 (consolidated with UE-100177 in Order 05 on Sept 28, 2010) established the CRAG, and set several conditions for deliverables that remain in place through succeeding Commission Orders.

⁶⁵ During the years in which PSE participated in the BPA's C&RD and CRC programs, Ernst & Young conducted two comprehensive audits of programs funded through the C&RD and CRC, with no audit findings.



Between March 6, 2012 and April 23, 2013, PSE conducted eight IRPAG (Integrated Resource Planning Advisory Group) meetings, which address conservation elements to varying extents.⁶⁶ PSE held CRAG meetings to discuss specifics around the development of the 2014-2015 BCP on June 6, July 18, August 22, October 1 and October 29, 2013. The majority of meeting coincided with the deliverables enumerated in condition (8)(f).

WAC 480-109-010(3)(b) indicates that PSE must clearly indicate whether its IRP or council's plan was the source of the target and how PSE prorated its ten-year projection to create its two-year target.

WAC 480-109-010(3)(c) indicates that PSE must describe the technologies, data collection, processes, procedures and assumptions used to develop those figures.

Exhibit i: *Ten-year Achievable Conservation Potential and Two-year Targets* satisfies these requirements by providing a detailed discussion of PSE's calculations based on its 2013 IRP and how PSE prorated its ten-year projection to create its two-year target. Within Exhibit i, and through references to PSE's 2013 IRP, PSE describes the details of the development of the targets.

Three Sets of Expectations

Throughout the decade-long evolution of conservation regulatory expectations, PSE has sustained successful compliance with an ever-increasing and complex set of requirements. In 2013, in order to consolidate reporting and tracking of those requirements, PSE migrated those gas-specific deliverables from the 2001 Stipulation Agreement⁶⁷ into its Exhibit 9: *Condition Compliance Checklist*.

Doing so maximized PSE compliance efficiencies and

The PSE regulatory deliverables for conservation reside in three separate regulatory documents.

Gas-specific requirements are enumerated in the 2001 GRC Stipulation Agreement, Docket No. UG-011571. Docket No. UE-011570 was vacated by Order 05 in Docket No. UE-100177.

Sections A through J and L of the 2010 Electric Settlement Agreement, Docket No. UE-100177 are also still in effect.

PSE anticipates that a new set of conditions, outlined in the Docket created when the 2014-2015 BCP is received by the UTC, will replace those in Order 01 of Docket No. UE-111881.

Therefore, PSE will continue to report on its requirements compliance using its established tenets.

⁶⁷ The 2001 Stipulation Agreement is formally known as Exhibit F of PSE's 2001 General Rate Case, Docket No. UE-011570 and UG-011571. These natural-gas unique requirements were only added to Exhibit 9 for tracking and reporting purposes.



⁶⁶ The 2012-2013 IRPAG meetings are discussed in detail in Appendix A of PSE's 2013 IRP.



provided Stakeholders added value in reviewing PSE compliance with conservation requirements in a single document.

Although not explicitly required to do so, PSE has operated its natural gas conservation programs under the same set of requirements and deliverables as enumerated for PSE's electric conservation programs since the acceptance of the 2010 Electric Settlement Agreement.

Specific Conditions Applicable to the Biennial Conservation Plan

During 2014-2015, PSE will continue to proactively and adaptively manage its conservation programs under the guiding principle of condition (2):

Nothing within this Agreement relieves PSE of the <u>sole responsibility</u> for complying with RCW 19.285 and WAC 480-109, which requires PSE to use methodologies consistent with those used by the Pacific Northwest Electric Power and Conservation Planning Council ("Council"). Specifically, the conditions regarding the need for a high degree of transparency, and communication and consultation with external stakeholders, <u>diminish</u> <u>neither PSE's operational authority</u> nor its <u>ultimate responsibility</u> for meeting the biennial conservation target approved herein.⁶⁸

The BCP is submitted in compliance with condition 8(f).

- (8) Puget Sound Energy must file the following:
 - (f) A report identifying its ten-year achievable potential and its biennial conservation target (Biennial Conservation Plan), including revised program details and program tariffs by November 1, 2013, requesting an effective date of January 1, 2014. In addition to the usual customer-based measures, the plan will also include both distribution and generation energy efficiency program plans as required by RCW 19.285. Prior to filing the Biennial Conservation Plan, Puget Sound Energy shall provide the following information to the CRAG: ten-year conservation potential and two-year target by August 1, 2013; draft program details, including budgets, by September 1, 2013; and draft program tariffs by October 1, 2013.

This 2014-2015 BCP also addresses, completes, or initiates compliance with other Sections, Orders, and conditions specific to the BCP's contents. Table 11a provides highlights of deliverables with which this report complies, and in what section or chapter the compliance requirement is addressed.



⁶⁸ Emphasis added.



Table 11a: Conditions Addressed in the 2014-2015 Biennial Conservation Plan

Section/Condition Subject	Plan Chapter
F(11) – Annual detailed program budget	Chapter 1: Executive Summary, Chapter 2: Introduction, Details – Exhibit 1
(3)(a)(v) – Review the need for Tariff modifications with the CRAG	Exhibit 11 – Tariff revisions
(3)(a)(vi)(2) – Review planning for measure & services incentives	Exhibit 4: Energy Efficiency Measures, Incentives & Eligibility
(3)(a)(ix) – Budget Review with the CRAG	Chapter 1: Executive Summary, Chapter 2: Introduction, Details – Exhibit 1
(3)(c) – Provide the CRAG with electronic copies of tariff filing	Exhibit 11: Tariff Revisions
(4)(a) & (4)(b) – PSE must submit annual budget, with program detail	Chapter 1: Executive Summary, Chapter 2: Introduction, Details – Exhibit 1
(5) – Program Details on file with UTC	Exhibit 3: Program Details
(6)(f) – PSE must spend a reasonable amount of its budget on EM&V	EM&V spending is highlighted and summarized in magenta in Exhibit 1.
(7)(a) – PSE must offer programs that reach each customer sector	Part 1: 2014-2015 Biennial Conservation Plan Overview, Exhibit 3: Program Details
(7)(b) – Outreach on programs, inform participants	Exhibit 1, sector views, Marketing cost element, Exhibit 3, Program Details, Exhibit 7, Marketing Plan
(7)(c) – PSE must offer incentives that are neither too high nor too low.	Exhibit 4: CS List of Measures, Incentives & Eligibility
(8)(f) - [PSE must file its 2014-2015 Biennial Conservation Plan by November 1, 2013.]	Parts 1 & 2, Volumes 1 through 3 of PSE's 2014- 2015 Biennial Conservation Plan





Tracking the 2014-2015 Conditions Compliance

It is important to be mindful that all applicable conditions, Orders, Sections, and requirements are noted in Exhibit 9: *Condition Compliance Checklist*. In 2013, PSE added those natural gas-specific requirements still in effect from the 2001 General Rate Case Stipulation Agreement, Exhibit F in Docket No. UG-011571.⁶⁹ These are highlighted separately in the Exhibit 9 table and located adjacent to a similar electric condition, even though its numerical designation may be different.⁷⁰

Several conditions are considered "Ongoing business practice".⁷¹ This is because they have no "deliverable" or initiate actions or reports; they outline a business practice or expectation. Examples (paraphrased) include Section G(14): PSE will honor Merger Commitments 22 and 23 from U-072375 regarding LIW funding levels, or (H)(16), regarding the use of peak credit method of assigning costs. These are classified as "completed" until the business practice or expectation changes.

In addition to the constant compliance examination and reporting throughout the year, PSE reviews the "Ongoing business practice" conditions annually at a minimum to ensure that PSE maintains up-to-date compliance. There are also typically four or five conditions that span the current biennium, such as the Biennial Conservation Report⁷² that is filed with the Department of Commerce. These will usually have an hourglass or yellow check at the beginning of a new biennium. Apart from these conditions, PSE removes all compliance status symbols from Exhibit 9: Condition Compliance Status, at the beginning of each biennium; thus starting with a "clean slate".

PSE provides the CRAG with Exhibit 9 compliance progress updates routinely throughout the year. PSE also includes references to applicable conditions in each CRAG meeting slide presentation. PSE will focus on continuously improving the value of information provided, and update the CRAG regularly in the upcoming biennium.



⁶⁹ There are four <u>natural gas-specific</u> requirements from Exhibit F now listed in Exhibit 9.

⁷⁰ For instance, the requirements to publish a biennial customer report card are similarly located, even though the requirement is Section M.44 in the Stipulation Agreement and Section I of UE-100177, number (18).

⁷¹ These are indicated in the "Deliverable Provided Date" column near the right-most margin of Exhibit 9.

⁷² Due by June 1 each year, PSE filed its "midterm", 2012-specific Biennial Conservation Report with the Department of Commerce and the UTC (in Docket No. UE-111881) on June 1, 2013, consistent with RCW 19.285.070(1). The report addressing the complete 2012-2013 biennium will be filed under the same Docket number by June 1, 2014.



Energy Efficiency Compliance Controls

Over the span of several years, PSE has put into place controls to not only manage the compliance with the above-noted conditions, but also with other business management subjects, such as:

- Ensuring that Rider funds are spent appropriately,
- Ensuring that invoices are approved only by applicable managers,
- Providing segregation of duties for financial activities (such as incentive payment processing & reporting),
- Effectively coordinate CRAG meetings, associated summary briefs, and all CRAGrelated exchanges, information and communications,
- Confirming savings accuracy, including all savings adjustments,
- Substantiating financial reporting accuracy,
- Others, as required.

Highlights of some of the most important compliance controls that PSE maintains and updates at regular intervals include:

- Clearly defined signature authority for invoice approval,
- Clearly defined delegation of commitment authority policies,
- Clearly defined measure guidelines, including implementation of new measures, revision of existing measures,
- Segregation of duties provide cross-checks and ensures that payments cannot be mis-appropriated,
- Compliance management staffing to oversee regulatory expectation compliance.

Additionally, one of the best and most effective compliance controls is clear and consistent communication with Regulatory Stakeholders.





Glossary of Terms

Calculated Savings	This savings type is different than deemed 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). This term is used in the <u>Savings Type</u> field in Exhibit 5, List of Measures.
Channel	Within a 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.
Conditions	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 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. 100177. There are additional sections that regulate the Company's energy efficiency operations.
Custom Savings	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.
Deemed Measure	As in a measure's deemed savings 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). This term has been supplanted by "UES", defined below.



Glossary, continued

Direct Benefit to Customer (DBtC)	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 the PSE service territory or regionally—and free energy efficient devices available by mail.
Direct Install Measure	A conservation measure that is installed by a PSE representative— rather than a PSE customer—into a qualifying structure.
Distribution	For the purposes of Schedule 292, means electrical facilities within the State of Washington that the Company owns or operates to convey electricity from the point of generation or purchase to the point of use by a Customer. Distribution includes transmission and distribution lines related substations and transformers.
EIA	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".
I-937	An informal 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, by law, is now referred to as the Energy Independence Act ("EIA").
Measure	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. ⁷³ Measures should also meet cost-effectiveness standards.
Orders (see also 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, 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 2014-2015 Conservation Target Subject to Conditions, Docket Number UE-111881. Effective June 14, 2012.

⁷³ Schedule 83, section 4, Definitions, #m. Schedule 183, section 4, #l.





Glossary, continued

Program	Programs may consist of a single measure, an assortment of related measures or a suite of measures that are related strictly by delivery type or customer segment.				
PSE Deemed	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 Settlement Agreement condition K(6)(c).				
	This term is used in the <u>Savings Type</u> field in Appendix B, List of Measures.				
RTF Deemed (see also UES)	A legacy term, only used in the Measure Metrics database. 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.				
Savings	Savings (both natural 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 natural gas meter.				
	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. The average measure life per program can be found in the Energy Efficiency Cost-Effectiveness tables in Exhibit 2 of this report. As noted above, measures have associated savings beyond the first year; those savings continue to accrue to the benefit of PSE.				
System	In this document, System may have the following meanings:				
	 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. 				
	 Electrical, and/or natural 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. 				



Acronyms

ACP	Biennial Conservation Plan
AEE	Association of Energy Engineers
AIA	American Institute of Architects
ALP	Advanced Lighting Package. Referenced in the Single Family New Construction program discussion.
aMW	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.
ARRA	American Recovery and Reinvestment Act
ASHRAE	American Society of Heating, Refrigerating and Air Conditioning Engineers
BCP	Biennial Conservation Plan
BEM	Business Energy Management
BEOP	Building Energy Optimization Program (within the BEM Sector).
ВОМА	Building Owner and Managers Association
BPA	Bonneville Power Administration
СВТИ	Comprehensive Building Tune-Up (program in the BEM Sector).
CEM	Customer Energy Management. The Energy Efficiency group made up of Residential and Business Energy Management Sectors.
CFL	Compact Fluorescent Lamp
СНР	Combined Heat & Power
C/I	Commercial/Industrial. References programs in the Business Energy Management sector.
CLEP	Certified Lighting Efficiency Professional
CMS	Customer Management System. A PSE proprietary software application that tracks customer activities, inventory and rebate processing.
CRAG	Conservation Resource Advisory Group
Energy Efficiency	Customer Solutions, Energy Efficiency





Acronyms, continued

CSY	Customer Solutions database; used to process custom grants and select prescriptive rebates within Energy Efficiency.
DCEEP	Data Center Energy Efficiency Program (within the BEM Sector).
DDC	Design, Development and Construction
DHW	Domestic Hot Water
DR	Demand Response
EC Motor (ECM)	Electronically Commutated Motor
EE	Energy Efficiency
EIS	Energy Interval Service
EME	Energy Management Engineer
EM&V	Evaluation, Measurement and Verification
ERR	Evaluation Report Response. A form used to complete an evaluation study's resultant actions.
FTE	Full Time Equivalent, in reference to PSE staffing levels
GIS	Geospatial Information System
GPM	Gallons Per Minute
HID	High Intensity Discharge (lamp type)
HVAC	Heating, Ventilation and Air Conditioning
IRP	Integrated Resource Plan
IRPAG	Integrated Resource Planning Advisory Group
ISOP	Industrial System Optimization Program (within the BEM Sector.)
kWh	Kilowatt Hour. 1,000 watt-hours = 1 kWh, which is equivalent to 10 100-watt incandescent lamps being turned on for one hour.
LED	Light Emitting Diode (typically, a lamp type)
LEED	Leadership in Energy and Environmental Design
LIW	Low Income Weatherization (program)
MEF	Manufacturer's Energy Factor (applies primarily to appliances)
MWh	Megawatt-hour. 1,000 kWh = 1 MWh

98





Acronyms, continued

NEBs	Non-Energy Benefit, Quantifiable. Attributes having a direct cost- effectiveness correlation applicable to the Total Resource Cost test and Participant Cost Test. It is important to note that any reference to NEBs in any PSE document refers to those that are quantifiable. Any non-quantifiable benefits will be specifically noted.
NEEA	Northwest Energy Efficiency Alliance
NEEC	Northwest Energy Efficiency Council
NEMA	National Electrical Manufacturers Association
NWESH	Northwest Energy Star Homes
O&M	Operations & Maintenance
РСТ	Participant Cost Test. Compares the customer costs of purchasing the efficiency equipment to the customers' associated utility bill savings.
RBSA	Residential Building Stock Assessment
RB2B	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.
RCW	Revised Code of Washington.
REM	Residential Energy Management
RIM	Ratepayer Impact Measure. A test that compares the administrator costs and utility bill reductions to supply-side resource costs.
RTF	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.
SBDI	Small Business Direct Install (program within the BEM Sector, Commercial Rebates).
SBTU	Simplified Building Tune-Up (program within the BEM Sector.)





Acronyms, continued

TRC	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). ⁷⁴
ΤQΜ	Total Quality Management; the general business management principle established in the early 1980s that is focused on continuous improvement, consisting of (in the majority of models) Assess \rightarrow Plan \rightarrow Do \rightarrow Verify. Also associated with the concept of adaptive management.
UC	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. ⁷⁵
UES	Unit Energy Savings. Formerly "Deemed", the RTF updated the term in 2011.
ULI	Urban Land Institute
USGBC	U.S. Green Building Council
VO	Voltage Optimization
WAC	Washington Administrative Code
WSEC	Washington State Energy Code
WUTC, or UTC	Washington Utilities and Transportation Commission



⁷⁴ Schedule 83, section 4, Definitions, #z. Schedule 183, section 4, #x.

⁷⁵ Schedule 83, section 4, Definitions, #bb. Schedule 183, section 4, #z.



Index

BEM			11,	61,	71
budgets and savings g	oals.	6,	15,	49,	61
CAN			54,	55,	68
CEM					21
CIS					22
CMS					77
cost effectiveness			28,	80,	84
CRAG	19, 2	20,	82,	92,	93
Dealer Channel					53
decoupling					9
Distribution Efficiencies	s				70
drivers					33
Drivers				15,	19
Exhibit					82
Exhibit 1			30,	32,	46
Exhibit 10					70
Exhibit 2					96
Exhibit 3				51,	58
Exhibit 4					19
Exhibit 5					41
Exhibit 6					76
Exhibit 7					51
Exhibit 9				89,	92
Exhibit i				83,	89
Exhibits	· · · · · · · · · · ·	12,	14,	19,	27
FTE				20,	80
IOU					36
IRP			70,	76,	80
IRPAG			31,	82,	89
Measure Metrics					28

NEBs
NEEA
Order 016, 14
RCM
RCW6, 8, 9, 12, 15, 24, 36, 70, 87, 88,
90, 94, 95, 99
REM 11, 48, 50, 53, 55, 60, 71
Residential Business-to-Business
Channel55
Retail Channel51
RTF37
SAP22
Stakeholders. 19, 27, 30, 70, 83, 86, 102
Supplement19
target 18, 30, 46, 70, 77, 82, 83, 88, 90
Target8, 14, 28, 89
Total Resource Cost7
IQM20, 21
IRC7, 42, 48, 60, See Total Resource
UC 7, 42, 48, See Utility Cost
UE-100177
UE-111881
UE5
UG-01157112, 14
UIC
UTILITY CUST
100 100, 12, 24, 30, 07, 00, 09, 90, 93, 100
100





Conclusion

This concludes Energy Efficiency's 2014-2015 Biennial Conservation Plan. PSE acknowledges, and is very appreciative of the partnership with the CRAG and the collaboration that was cultivated with CRAG members throughout 2013. PSE looks forward to further success in 2014-2015.

PSE additionally appreciates the input and cooperation of its regional partners, other PSE divisions, and its constituents. As PSE progresses through the upcoming biennium, PSE will continue to keep its Stakeholders apprised of progress, program refinements, measure updates, and other adjustments as PSE utilizes its business management acumen to anticipate and stay ahead of regional conditions in moving towards achievement of its 2014-2015 biennial savings targets.

Most importantly, PSE extends its thanks to PSE customers. PSE sincerely appreciates their acknowledgement of its efforts and trust that they put in the dedicated men and women of Energy Efficiency. PSE is a steward of their efficiency efforts to prudently use the funds that they provide and improve the environment for them and their children. PSE consistently strives to provide the highest level of customer service in the Northwest.

The Energy Efficiency Staff look forward to a productive and constructive 2014-2015!

Respectfully submitted,



Puget Sound Energy Energy Efficiency





Exhibit i

2014-2023 Ten-year Conservation Potential and 2014-2015 Two-year Electric Target

January 1, 2014



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Contents

CUMULATIVE TEN-YEAR CONSERVATION POTENTIAL	3
Statutory and Regulatory Requirements	3
Identifying All Conservation Opportunities That Are Cost-Effective, Reliable, and Feasible	4
Consistency with Council Methodology	4
Total Ten-year Conservation Potential	6
Figure 3: PSE Cumulative Ten-Year Conservation Potential (2012-2021)	6
BIENNIAL CONSERVATION TARGET	7
Statutory and Regulatory Requirements	7
Determination of Pro Rata Share of the Ten-Year Conservation Potential	7
Biennial Conservation Target	10

Figures

Figure 1: PSE Conservation Potential Consistency with Council Methodology	5
Figure 2: PSE Cumulative Ten-Year Conservation Potential (2014-2023)	6
Figure 3: PSE Cumulative Conservation Potential	8
Figure 4: PSE 2014-15 Cumulative Conservation Potential at the Meter Level	8
Figure 5: Pro Rata Adjustments to Cumulative Conservation Potential	9
Figure 6: 2014 – 2015 Biennial Conservation Target	10





Cumulative Ten-Year Conservation Potential

Statutory and Regulatory Requirements

RCW 19.285.040 requires that, beginning in 2010 and every two years thereafter, utilities must project their "cumulative ten-year conservation potential", including all electric savings that are "cost-effective, reliable and feasible". WAC 480-109-010 (1) says that this projection may be derived from either the utility's most recent IRP or the Northwest Power and Conservation Council's most recent regional power plan. Further guidance is provided in Condition (9)(a) of the Settlement Terms for Conservation in Docket UE-100177, which stipulates that the ten-year potential "must be based on a current conservation potential assessment study of PSE's service area".

As defined by WAC 480-109-007 (3), conservation is defined as "any reduction in electric power consumption" due to increased efficiency of:

- Energy Use, where PSE includes energy efficient building systems, high efficiency electric end use equipment, conversion of electric end uses to high-efficiency natural gas equipment, and high efficiency cogeneration systems to meet on-site customer load;
- Distribution, where PSE includes line phase balancing and conservation voltage reduction;
- Production, where PSE includes energy efficiency improvements at PSE electric production facilities.

The remainder of this section describes determination of the conservation potential and consistency of the company's methodology with that of the Northwest Power and Conservation Council (hereafter referred to as the "Council").





Identifying All Conservation Opportunities That Are Cost-Effective, Reliable, and Feasible

The ten-year cumulative conservation potential consists of the optimized level of energy use and distribution system conservation potential selected by PSE's resource portfolio model for the 2013 Integrated Resource Plan (IRP). It includes ramping the timing for achieving this potential so that all the economic achievable retrofit potential in existing buildings would be achieved in 10 years, not the full 20-year planning horizon of the IRP. In addition, PSE subsequently estimated the potential for electric energy savings from improvements to the efficiency of PSE's power generation facilities in Washington State. The methodology for deriving these potentials is explained more fully below.

The combined total of 2013 IRP potential plus production facility efficiency represents the total amount of conservation that is technically available, cost-effective, and achievable in the long run, based on the best information and analysis available. This includes all potential savings from any combination of utility programs, new codes and standards, and market transformation.

Consistency with Council Methodology

The methodology used to determine these potentials was consistent that that used by the Northwest Power and Conservation Council (the "Council") to develop the 6th Northwest Power Plan. The conservation potential was built with a bottom-up approach, using individual energy-efficient technologies applied to appropriate end uses and building types to determine technical, economic, achievable potential.

Both PSE and the Council use similar Total Resource Cost (TRC) approaches to their economic analyses. In the spring of 2011, a sub-group of the Washington State Conservation Work Group was convened to examine the methodologies of all the state's electric investor-owned utilities relative to the Council methodology. That sub-group concluded that all the utilities, including PSE, were generally consistent with the Council methodology. A few minor differences in methodology were identified, but none of these had significant impacts on the results. One minor difference in the economic analysis is that PSE analyzed bundles of measures with similar costs while the Council analyzes individual measures, but this does not appear to cause significant differences in results. Another minor difference is that PSE expresses its benefits and costs in nominal terms (includes inflation) while the Council uses real terms (excludes inflation), which does not cause any difference in relative cost-effectiveness since benefits and costs are treated equally.





Finally, PSE uses its own after-tax cost of capital as the discount rate for present value calculations, while the Council uses a regional discount rate that combines utilities, customers, and BPA. Again, the absolute difference in discount rates is small and does not materially affect results.

Figure 1 identifies the key elements of PSE's methodology, consistent with the methodology outline of published on the <u>Council's website</u>, except for minor differences noted above. Complete descriptions of PSE's technical and achievable potential are in <u>Appendix N</u> of the 2011 IRP. The derivation of the economic potential is presented in <u>Chapter 5</u> and <u>Appendix K</u> of the 2011 IRP.

Technical Potential	Economic Potential	Achievable Potential
 Wide array of technologies, applied to all customer sectors "Applicable" units, as determined by Building characteristics Fuel & equipment saturations Equipment life/turnover New & existing units Measure interactions & substitutions Calibrated to customer & load forecasts for PSE service area 	 Economic screen uses TRC approach Based on forecast of wholesale market prices Energy and capacity savings shaped for time and seasonal differences Use range of scenarios to account for uncertainty and risk Use full incremental measure costs, plus applicable O&M and program admin. Costs Benefits include energy, capacity, T&D losses and deferral Non-energy benefits, 10% Power Act credit & environmental externalities included 	 Annual acquisition levels based on IRP portfolio modeling where conservation competes against all other resources Discretionary & lost opportunity potentials identified Use ramp rates that accelerate discretionary retrofit measures, with 85% maximum market penetration Potentials are revised based on new information and market experience gained since previous IRP

Figure 1: PSE Conservation Potential Consistency with Council Methodology

Efficiency improvements at electric production facilities were projected in the Company's IRP, but not included in the resource portfolio analysis because the total value of these savings is relatively small (3.1 aMW) and development of the measure costs was still under way.. This assessment includes all hydro and thermal plants operated by PSE in the state of Washington. A summary of the conservation potential for each generation plant is included as Figure 5-18 in Chapter 5 of the 2013 IRP. It is assumed that all of this potential from production facilities is achievable in ten years and is distributed evenly across that period.


Total Ten-year Conservation Potential

Based on the analysis described previously, PSE's total cumulative ten-year conservation potential is 2,930,760 MWh (334.6 aMW) at the generator, which includes line loss savings from the customer meter back to the power generator (consistent with conservation council's basis for reporting energy savings). Expressed in terms of energy savings at the customer meter (excluding line loss savings), the ten-year potential is 2,730,408 MWh (311.7 aMW).

Figure 2 shows how the cumulative ten-year potential breaks out by type of conservation resource. As can be seen, the vast majority (97 percent) of the ten-year potential comes from Energy Use Conservation. Energy Use Conservation consists of improved building shell efficiency, high-efficiency electric end use equipment and controls, electric-to-gas customer fuel conversion, and small scale distributed generation.









Biennial Conservation Target

Statutory and Regulatory Requirements

RCW 19.285.040 requires that, once the ten-year conservation potential has been developed, utilities shall set a biennial electric conservation acquisition target which is no lower than the utility's two-year pro rata share of its ten-year potential.

The WAC rule for setting the biennial target defines "pro rata" simply as "the calculation used to establish a minimum level for a conservation target" (WAC 480-109-007 (14)) and requires that the utility must document how the ten-year cumulative conservation potential was prorated (WAC 480-109-010 (2)).

Determination of Pro Rata Share of the Ten-Year Conservation Potential

The conservation potential in PSE's 2013 IRP assumes that all retrofit end use energy efficiency and fuel conversion potential is accelerated into a ten year period, while other types of conservation or demand-side resources are ramped in more gradually over time over natural measure life cycles or customer growth rates. This is consistent with previous IRP's and is intended as a general planning assumption to demonstrate that there is value to acquiring these resources as quickly as realistically possible, but that they cannot be acquired immediately.

The 2014 – 2015 two-year portion of the cumulative ten-year potential is 589,985 MWh (67.3 aMW) at the generator level. This represents 20.1 percent of the 10-year potential. Figure 3 shows the cumulative savings by resource type for each biennial period over the next ten years.







Figure 3: PSE Cumulative Conservation Potential

The first step in creating the two-year target is to convert the 2014-15 IRP potential from the generator level to the customer meter level, by adjusting for energy loses over the delivery system between the generator and meter, presented in Figure 4 (the asterisk indicates that this line loss adjustment is not applicable to production facility potential). Figure 4 shows this conversion, which results in a two-year IRP potential of 62.7 aMW, which has been rounded up to 63 aMW.

	Generator	Generator		Meter	Meter
	Level	Level	Less:	Level	Level
	Savings	Savings	0.9% Lille	Savings	Savings
	(MWH)	(aMW)	LUSSES	(MWH)	(aMW)
End Use Efficiency	570,986	65.2		531,588	60.7
Distribution Efficiency	13,578	1.6		12,641	1.4
Production Efficiency	5,420	0.6		5,420	0.6
Total 2014-15 Potential	589,985	67.3		549,650	62.7





However, the IRP conservation potential does not include any savings from behavior modification, nor does it differentiate between savings that are best achieved by local utility or regional programs. Therefore, the Company has made some additional pro rata adjustments to the cumulative conservation potential. These additional factors are identified below.

- Residential Individual Energy Reports: The CRAG and PSE agreed to add savings from legacy Individual Energy Reports (the original residential Home Energy Report customers) to the two-year IRP conservation potential. This increases "base" savings by 0.7 aMW from an established behavior modification program.
- Northwest Energy Efficiency Alliance (NEEA): PSE worked with NEEA and the CRAG to create a forecast of NEEA savings within PSE's service area that is subtracted from the two-year IRP potential, plus Individual Energy Report savings (above), to produce a savings target that can be achieved solely by PSE's own programs.¹ The agreed-upon NEEA adjustment is 8.3 aMW. PSE will continue to report savings from NEEA, although it is not counted in the calculation of the EIA target or achievement.

The total effect of these prorated adjustments on the maximum cumulative conservation potential in the 2014 – 2015 biennium is shown in Figure 5.

	2014-2015 Biennial Electric Portfolio Target				
	Description	aMW	MWh	Comment	Calculation
а	Total IRP Two-Year Potential	63.0	551,880	2013 IRP guidance (no behavior savings)	
b c	Plus Legacy Individual Energy Reports Total "Base" Savings	<u>0.7</u> 63.7	<u>6,421</u> 558,301	15,000 residential IER customers	a + b (IRP + IER)
d	Less NEEA	(<u>8.3</u>)	(72,533)	NEEA's adjusted TRS	
e	Total Biennial EIA Target	55.5	485,768	Penalty: \$50/MWh shortfall	c - d <i>("Bas</i> e" - NEEA)

Figure 5: Pro Rata Adjustments to Cumulative Conservation Potential

¹ For a complete discussion of methodologies used to reach the final 2014-2015 NEEA savings forecast, please see Exhibit 10, Supplement 1: *NEEA Savings Determination Methodology*.





Biennial Conservation Target

The 2014 - 2015 biennial target, accounting for the pro rata adjustments described above, is 485,768 MWh (55.5 aMW) at the customer meter level. This is equivalent to 518,912 MWh (59.2) aMW) at the generator level (line loss adjustments included). This target represents the company's pro rata share of all conservation potential available over ten years that is reliable, cost-effective, and feasible to achieve through its program efforts in the next two years.

Figure 6 breaks down the target by type of conservation resource. All the pro rata adjustments are to end use efficiency savings. Nearly all the target savings (96 percent) is expected to be achieved through end use efficiency programs. This proportion is consistent with the distribution of savings by resource type in the ten-year potential, shown previously in Figure 2. PSE will endeavor to achieve savings across all three types of conservation resources, but is ultimately accountable for the total target of 485,768 MWh.



Figure 6: 2014 – 2015 Biennial Conservation Target





Energy Efficiency

Exhibit 3

2014-2015 Program Details





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Table of Contents

INTRODUCTION	1
Associated Documents	1
PROGRAM DETAILS	2
Program Detail Revisions	2
Program Details Organization	2
Document Contents	3
RESIDENTIAL ENERGY MANAGEMENT	5
SECTOR ORGANIZATION	5
LOW INCOME WEATHERIZATION	6
Purpose	6
Description	6
Effective Program Awareness and Outreach	7
Target Market	8
Customer Incentives Overview	8
Marketing Plan	9
Outreach Plan	10
SINGLE FAMILY EXISTING	11
Purpose	11
Description	11
Customer Experience	12
Retail Channel	13
Marketing Plan	15
Outreach Plan	18
Dealer Channel	20
Target Market	20
Customer Incentives	21
Marketing Plan	21
Outreach Plan	23
SINGLE FAMILY FUEL CONVERSION	25
Purpose	25
Description	25
Customer Experience	26
Target Market	26
Customer Incentives	26
Marketing Plan	27
Multifamily Existing	28
Purpose	28
Description	28
Customer Experience	28
Target Market	29
Customer Incentives Overview	29
Marketing Plan	29
Outreach Plan	31





Residential New Construction	
Purpose	
Description	
Target Market	
Customer Incentives	
Marketing Plan	
Outreach Plan	
PILOTS	39
Residential Individual Energy Report Pilot	39
Pilot Assumptions	
BUSINESS ENERGY MANAGEMENT.	
Small to Midsize Business Efficiency Pilot	
Commercial /Industrial Retroft	44
Purnose	44
Description	44
Taroet Market	45
Customer Incentives Overview	45 45
Markoting Plan	
Outreach Plan	
COMMEDCIAL /INDUSTRIAL NEW CONSTRUCTION	
Purpose	50
Description	50
Taraot Markot	51
Turger Murker	51
Markating Plan	51 51
Murkening I un	
Resoluce Conservation Management	56
Purpose	
T urpose Description	56
Customar Incentives	50 60
Customer Incentives	
Murkeling Flan	
Unifeach Plan	
Dumose	
r urpose Description	
Description	05 64
Turger Murker	
Customer Incentives Overview	
Marketing Plan	
ENERGY EFFICIENT TECHNOLOGY EVALUATION	
Technology Evaluation Overview	
Convergence And Software Evaluation	
COMMERCIAL REBATES	
Purpose	
Target Market	
Customer Incentives Overview	
Marketing Plan	
Commercial Kitchens	
Commercial Lighting	
Small Business Outreach – Direct Installations	
Outreach Plan	



Exhibit 3: Program Details Last Revised: 11/01/2013 ii



REGIONAL PROGRAMS	3
Northwest Energy Efficiency Alliance	4
Description7	4
GENERATION, TRANSMISSION AND DISTRIBUTION EFFICIENCY	5
Purpose7	5
Description7	5
PORTFOLIO SUPPORT	7
CUSTOMER ENGAGEMENT AND EDUCATION7	8
CUSTOMER ENGAGEMENT AND EDUCATION7	8
Purpose7	8
Energy Advisors7	8
<i>Events</i>	9
Energy Efficiency Brochures7	9
Education	0
CUSTOMER ONLINE EXPERIENCE	2
Purpose	2
Description	2
Web Experience	2
Marketing Integration	3
AUTOMATED BENCHMARKING SYSTEM	4
ENERGY EFFICIENT COMMUNITIES	5
Purpose	5
Description	5
Target Markets	5
TRADE ALLY SUPPORT	6
Purpose	6
Description	6
Target Market	6
RESEARCH & COMPLIANCE8	7
CONSERVATION SUPPLY CURVES	8
STRATEGIC PLANNING	8
Objectives	8
Description	8
Market Research	9
Objectives	9
Description	9
PROGRAM EVALUATION	1
Description9	1
VERIFICATION TEAM9	3
Description9	3
Measurement & Verification (M&V)9	3
Verification Team Guidelines9	4
PROGRAM DEVELOPMENT	5
Description9	5





OTHER ELECTRIC PROGRAMS	97
NET METERING	
Purpose	
Description	
Target Market	
Customer Incentives	
PRODUCTION METERING	99
Purpose	
Description	
Target Market	
Customer Incentives	
Marketing Plan	
COMMERCIAL/INDUSTRIAL LOAD CONTROL	
Background	
Next Steps	
GLOSSARY OF COMMONLY USED ACRONYMS AND TERMS	101





INTRODUCTION

Exhibit 3: Program Details provides discussion about PSE's Energy Efficiency department conservation programs, functions and activities, including those that do not have an associated Conservation Schedule. Exhibit 3 is associated with PSE's Annual And Biennial Conservation Plans. The contents of Exhibit 3 are developed to be consistent with the applicable 2012 Order 01 conditions provided in Docket No. UE-111881, and sections A through J and L of the 2010 Electric Settlement Agreement in Docket number UE-100177, including but not limited to:

- (3)(a)(vi)(1) Discussion of efficiency marketing efforts,
- (3)(a)(vi)(2)
 Discussion of Incentives,
- (5) Program Details filings,
- (7) Discussion of Program Design Principles,
- (8)(f) Filing of the 2014-2015 Biennial Conservation Plan.

The Exhibit 3 program details also include gas programs discussions.

Associated Documents

As a part of its 2014-2015 Biennial Conservation Plan (BCP) filing, PSE includes several documents associated with Exhibit 3. It is noteworthy that Exhibit 3 may be updated and filed, consistent with condition (5) when there are major program updates. Additional documents included with the BCP are:

PSE's 2014-2015 Ten-year achievable conservation potential and biennial conservation targets	Exhibit i
Budget and savings (both gas and electric) order number details	Exhibit 1
Cost Effectiveness Calculation Tables	Exhibit 2
List of Measures, Incentives and Eligibility	Exhibit 4
Prescriptive Residential and Business Rebates Measure Tables	Exhibit 5
Evaluation Plan	Exhibit 6





Marketing Plan	Exhibit 7
EM&V Framework	Exhibit 8
Condition Compliance Checklist	Exhibit 9
Northwest Energy Efficiency Alliance (NEEA) Plan	Exhibit 10

Program Details

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

Program Detail Revisions

As has been its standard business management practice, consistent with continuous improvement principles, PSE makes adjustments to its conservation offerings, delivery methods, marketing, incentives, and other elements of its programs on a periodic basis. This ensures that PSE stays current with customer demand, market trends, and is positioned to achieve aggressive conservation savings targets. Consistent with condition (8)(f), the Conservation Resource Advisory Group (CRAG) were presented with draft copies of Exhibit 3: Energy Efficiency Program Details prior to the filing of the final draft with the Washington Utilities and Transportation Commission (UTC) on November 1, 2014.

Following this filing, any subsequent filings will be provided to the CRAG in their "markup" version prior to UTC filings, per condition (5).

Program Details Organization

The organization of program detail discussions aligns with that of Exhibit 1: budgets and savings.¹ This facilitates easy reference from a program's budget to its description, marketing plan, incentive offerings, etc.

¹ One exception is in the Residential Energy Management's Residential Business-to-Business Channel, as discussed in the REM introduction.





Document Contents

All program details within this Exhibit were updated to reflect the most accurate representation of their offerings and services. Most Program Details² contains the program:

- Purpose,
- Description,
- Customer Experience,
- Target Market,
- Customer Incentives,
- Marketing Plan,
- Outreach Plan.

² Residential Energy Management and Business Energy Management sectors only. Portfolio Support and Research & Compliance functions and Other Electric Programs may exclude *Target Market*, *Customer Incentives* or *Marketing Plan* sections.





RESIDENTIAL ENERGY MANAGEMENT

Sector Organization

The Residential Energy Management Sector is comprised of four Channels; three of which implement energy-efficiency customer programs. These Channels are discussed in detail in the following sections. They are:

Retail: The Retail Channel implements energy-efficiency programs that primarily target consumers through a variety of venues, including retailers, directly, or electronically. Retail measures include, but are not limited to appliances, lighting; lamps and fixtures, showerheads, and Home Energy Reports.

Dealer: This Channel interfaces primarily with contractors, resellers and retailers. The Channel's measures include, but are not limited to space and water heat, HomePrint, and weatherization measures.

Residential Business-to-Business: Also referred to as "RB2B", this Channel's target market is the most wide-ranging in the REM Sector. The Channel is comprised of Low Income Weatherization, Multifamily Existing, and Residential New Construction.³

The fourth Channel; Systems, provides support for the variety of Energy Efficiency's reporting and tracking systems, including the LIW Agency database portal, Customer Management System, forecasting systems, and all Residential rebate application processing.

³ Until December 31, 2013, the Single Family New Construction and Multifamily New Construction programs were distinct programs, each with their own Conservation Schedule. Effective January 2014, the focus of the organization will be on all residential new construction.





Low Income Weatherization

Schedules E201, G201

The Low Income Weatherization program is included in the Residential Business-to-Business Channel. This is primarily because the majority of customer-facing contact for this organization is through low-income agencies throughout the PSE territory. The program discussion is presented here to maintain the numerical sequence of the Conservation Schedules, as also presented in *Exhibit 1: 2014-2015 Budgets and Savings.* The remainder of the Residential Business-to-Business programs (Multifamily Existing and Residential New Construction) are discussed following the Residential Fuel Conversion (Schedule E216) program on page 29.

Purpose

The Low Income Weatherization program assists low-income residential customers to improve the energy efficiency of single family residences, multifamily structures and manufactured/mobile homes.

In 2014-15, the goal of Puget Sound Energy's Low-Income Weatherization Program will be to continue to lessen the energy-cost burden of lower-income customers by improving the energy –efficiency of their residences and educating these consumers on routine ways to reduce their energy use and costs.

Program efforts will build on the existing model and extend the partnerships with assistance agencies as well as leverage other PSE programs for lower-income customers to include safety awareness and bill-payment assistance.

Description

Key stakeholders are low-income customers with electric and natural gas service; county and municipal low-income weatherization agencies in the PSE service area, Washington State Department of Commerce ("Department of Commerce" or "Commerce"), and participating weatherization contractors and suppliers. Residential Low Income Weatherization provides funding of many cost-effective home weatherization Measures for low-income customers receiving natural gas and/or electric service from PSE to heat their homes. Funds are used for single-family, multi-family and mobile home residences. Some Measures which do not meet standard cost-effectiveness tests may also be approved.





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

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

Sources of Low Income Weatherization funding include, but are not limited to the Electric Program Conservation Service Rider and the Natural Gas Conservation Service Rider, Company funds, BPA credits or other federal or state government programs.

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

Effective Program Awareness and Outreach

Through informal evaluations and feedback, PSE has discovered that awareness of the Low-Income Weatherization Program and its benefits vary widely, reflecting the range of customers—urban or rural—and specific barriers, such as language.

Since one size does not fit all, PSE during the 2014-15 program plans to strengthen outreach by using customer segmentation analysis to become more familiar with the demographic variables affecting the decision making to adopt home weatherization, and adjust the outreach accordingly.

With PSE also needing to grow more effective at making lower-income and non-English speaking consumers aware of electric and natural gas safety and the availability of funds to assist them with paying their utility bills, the Low-Income Weatherization Program will help facilitate coordination efforts and information sharing to provide a comprehensive outreach approach.





Target Market

Low-income customers including owners and tenants of single family, multi-family, manufactured or mobile homes that meet federal poverty guidelines issued by The Washington State Department of Commerce and natural gas and/or electricity from PSE.

Low Income agencies are contracted with PSE to perform customer income eligibility, manage the installation, and track and report projects to PSE.

Customer Incentives Overview

All Structures

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

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

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

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

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





Retrofit-- Multi-Family

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

Marketing Plan

The Low Income Weatherization program is a highly prescribed program that relies on its partner housing agencies to deliver its offering to eligible low-income homeowner participants.

The primary marketing objective is to elevate program awareness to participating customers and end-user opportunity among key housing agencies' administrators.

PSE will continue to build on and extend the partnership with assistance agencies. Where appropriate, PSE will seek public forums to be a visible advocate on behalf of lower-income energy customers.

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

Partner Marketing with Housing Agencies

The key strategy will be to continue to encourage Housing Agency Administrators to move applications swiftly and smoothly through the approval process, and to identify LIW opportunities to eligible candidates. This will require a communications program that delivers the current information to them about LIW features and benefits as well as technical program provisions. There will also be effort to passively deliver collateral through this channel on other single family residential offerings and energy efficiency tips that could be helpful to candidates on the waiting list.





This effort must also allow for peer recognition and results accomplishment to motivate administrators to push program opportunity whenever suitable.

- Biannual newsletter,
- Annual forum,
- Updated LIW brochure (multiple languages),
- Leave behind collateral,
- Enhanced presence and content on Web,
- Increased collaboration among other low-income programs and services,
- Continuous review and effectiveness assessment.

Outreach Plan

The Energy Efficient Communities team develops and implements outreach strategies to promote PSE's residential and commercial energy efficiency programs and services.

The outreach strategy for the Low Income Weatherization will work with customers and with business partners. The Outreach Team will provide customers with information about applicable products and services that PSE provides, and help deliver information to property managers/owners and contractors. This will be done through a variety of outreach mechanisms, including multi-family complex open houses, Low Income customer EE program awareness campaigns, community events, presentations, and internal PSE employee trainings. The Energy Efficient Communities Team will work with the program team lead and marketing to identify ways to reach Multifamily partners in conjunction with other mass marketing strategies developed for Retail and Dealer channels. Low Income Customer EE program awareness campaigns will include, but will not be limited to:

- Leave behinds for weatherization customers.
- Direct mail "thank you" with additional resources information for customers receiving services.
- Recognition program for service agencies staff.





Single Family Existing

Schedules E214, G214

Purpose

The Single Family Existing program acquires cost-effective energy savings from existing single-family (less than or equal to four units on a parcel) retrofit Measures and services.

Description

Single Family Existing programs implement cost effective, targeted, residential energy savings using a menu of prescriptive and calculated efficiency Measure incentives, including rebates for single family existing structures. Existing single family structures are defined as residential dwellings which include; structures with four or less units that are attached by a contiguous roofline, manufactured or factory built homes permanently affixed to a concrete foundation, and manufactured or factory built homes that are transportable. Single family existing residences exclude structures that are currently under construction. Prescriptive rebates are intended to facilitate participation by customers, contractors, manufacturers, retailers, developers, trade allies, and provide administrative efficiencies for PSE in meeting energy efficiency goals. **Note:** Multifamily campuses which have a mixture of existing residential building types, including buildings with four attached residential units or less, are served under the Multi-Family Retrofit Program; schedules E217 & G217.

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

- Compact Fluorescent Lighting including CFL lamps and CFL fixtures.
- Light-Emitting Diode (LED) lighting including A-line, BR-30, downlight, MR-16, and candelabra.
- Lighting Controls and Consumer Electronics, including but not limited to occupancy sensors and advanced power strips.
- Appliances—including refrigerators, freezers and clothes washers—rebates.
- Retail, online, and engagement showerheads.
- Refrigerator and Freezer Decommissioning both secondary and primary units.
- Refrigerator and Clothes Washer Replacement focus on older inefficient models to encourage early retirement.





- Weatherization, including windows, insulation air and duct sealing.
- Space heating including hydronic systems, high efficiency furnaces, high efficiency boilers, high efficiency fireplaces, heat pumps, and system controls, such as web-enabled thermostats.
- Water heating, including tank water heaters, heat pump water heaters, wastewater heat recovery, and efficient showerheads.

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

Customer Experience

Single Family Existing programs are built around the goal of providing an excellent customer experience by removing barriers to participation, serving under-represented populations within PSE service territory and ensuring clear and accurate communication. Single Family Existing programs work toward re-engineering the value chain by providing the customer with choices that will assist them in managing their energy costs and easy access to the information that they will need to be successful in using less energy.





Retail Channel

As noted in the Residential Energy Management introduction on page 5, the Retail channel focuses on services targeted to a wide variety of retail and manufacturer entities, including but not limited to "big box" chains, drugstore/grocery chains, warehouse stores, online retailers, and other local and independent resellers. The channel manages several programs—most of which are consumer-oriented—including refrigerator decommissioning, showerheads, appliances, electronics, and of course, energy efficient lighting. The Retail Channel operates primarily within the structure of Schedule 214; Single Family Existing.

Residential Retail Program

This program collaborates with retailers and manufacturers of energy efficient products – such as lamps, light fixtures, lighting controls, showerheads, electronics, and appliances such as, but not limited to, water heaters, primary heating equipment, clothes washers, refrigerators and freezers – to ensure that customers have access to a wide variety of efficient product options. The Retail Program provides incentives and promotions for efficient products to PSE's residential customers through agreements with retailers and manufacturers

When advantageous to do so, PSE may purchase energy-efficiency products directly from manufacturers to provide to retailers for resale. PSE also provides field services to educate retail employees on its products, detail qualifying product, and ensure compliance with PSE agreements.

Refrigerator & Freezer Decommissioning

This program provides customers with a means to safely dispose of their unwanted refrigerators and freezers while receiving an incentive for removing a potentially highenergy usage appliance from service. Decommissioning prevents the product from continued circulation in the secondhand marketplace and is applicable to primary and secondary units.





Refrigerator Replacement – older inefficient models

This program encourages customers to replace their old, inefficient primary refrigerator with a basic, efficient model while allowing PSE to remove, decommission and recycle their former unit. This program will be open to all customers as market research has shown that less than 10 percent of customers still use an older refrigerator as their primary unit.

These customers tend to be limited to rural, low-income and ethnic populations due to these segments' likelihood to a) not replace their refrigerator until it breaks, and b) replace their unit with a least-cost option (oftentimes a used, older unit). PSE will pay for the cost of the new unit, as well as delivery and installation, and for the decommissioning and recycling of the old unit.

Clothes Washer Replacement – older inefficient models

Similar to the refrigerator replacement, this program encourages customers to replace their old, inefficient clothes washer with a basic, efficient model while allowing PSE to remove, decommission and recycle their former unit. PSE will pay for the cost of the new unit, as well as delivery and installation, and for the decommissioning and recycling of the old unit.

Home Energy Reports

Home Energy Reports are customized reports mailed directly to PSE customers that help each residential customer better understand their home electric and gas consumption, motivate them to conserve and provide targeted calls to action tailored to help each customer save money and improve energy efficiency. This continues communication to its customers in new ways, providing them with an energy conversation with PSE.

The reports achieve this through these core features:

- Comparison to neighbors: Homeowners will be able to see how their energy use compares to similar-sized homes in their neighborhood. Only the homeowner will see personal information. Comparisons are drawn from geographic and structural characteristics, including square-footage, heattype, and proximity to compared homes.
- Progress tracker: Homeowners will also see how their energy use changes over time, so they can see trends in energy use and impacts from changed behavior or structural improvements.





 Personalized energy-efficiency tips: On each report, Homeowners receive tips chosen specifically for them based on energy use and the characteristics of the home. The tips are characterized as no cost, low cost and investment level changes in home habits and upgrades.

The initial pilot, launched in the third quarter of 2008, included 40,000 combined gas and electric single family households. In 2014, the Home Energy Reports program will be expanded to an additional 100,000 households.

Web-Enabled Thermostat

A web-enabled thermostat management solution to optimize customers' space heating system by combing the latest thermostat technology with behavioral tools that customers have come to easily interact with in other social applications in their life. The result will be a fully installed pre-programmed system that will engage customers with a user interface that is easier to understand and control, helping reduce their energy usage while maintaining their comfort.

Advanced Power Strips

An Infrared (IR) sensing advanced power strip is installed with a home entertainment system. This device disconnects power to all devices after a set period with no IR signal.

Marketing Plan

The objectives for the Retail Channel's 2014-15 marketing strategy are to help achieve respective program targets, educate customers about energy efficient products and offers, and find new ways to reach customers who may not have participated in PSE's programs before.

With legislative activity around the lighting industry, it will be more important than ever to have clear messaging about which products PSE recommends (and rebates) for customers and how they differentiate.

As CFL bulb use continues towards a saturation point, PSE will also need to get creative about its lighting promotions, such as targeting low income and hard to reach populations and including LED messaging to consumers.

Customer clarity and convenience will be a major theme for this channel in 2014-15 as PSE looks to remove barriers to participation. This will focus on delivering effective customer value through utilizing market research intelligence.





It will focus on thoroughly testing tactics, assessing successes, refining as needed, and testing again based upon results. This will require investing in consumer psychology and behaviors that includes working with experts in the field, both internally and externally. PSE has to know that what it is doing is working and is truly delivering impactful customer value.

By fully utilizing its market research capabilities, PSE will analyze research data and gather customer opinions on buying habits that will help refine its outreach methods. Another integral tactic will be multi-channel or cross marketing with the dealer channel initiatives that target a similar audience.

PSE's retail network also provides supplemental avenues for messaging customers with the product directly in front of them and in the prime store locations where they are most likely to see it. It also provides real-time ways for them to interact with products within the retail store and for customers to read about them online including prior customer product reviews. By collaborating closely with retail partners, PSE can reach customers when they are in the most likely position to make a purchasing decision and influence them to choose energy efficient products. Several new media tactics will be entertained as they are applicable to program objectives.

2014-2015 Strategies:

Lighting

- Continue collaboration with peer Puget Sound utility roundtable group to develop consistent messaging region-wide.
- Simplify the in-store buying process with informative point-of-sale materials, which may include PSE messaging on the product packaging itself.
- Increase awareness of the variety of quality products on the market. Provide pathway for customers to read product reviews.
- Engage PSE's customers with CFL and LED bulbs as an education entry into the most energy-efficient lighting on the market.





- Continue to educate customers both directly and through the retail sales associates engaging them within the stores on the best energy-efficiency lighting products on the market
- Store merchandising to make prime store real estate an energy-efficiency destination that would encourage the Interaction with products and encouragement of impulse purchases.
- In collaboration with retailers and manufacturers, provide limited-time-offers to leverage rebate and product pricing structure that would be more likely to get customers to buy.

Appliances

- Increase awareness of rebate offerings, so that when it comes time to make the critical purchase, customers know all the options available.
- Marketing activities that center around PSE rebates on the most-efficient appliances on the market, which may include limited-time-offers.
- Continue to encourage customers to recycle old, inefficient appliances.
- Make the connection for customers that their electric utility provides appliance recycling, which is not a logical conclusion for most people.

Showerheads

- Communicate variety of purchasing options to customers and streamline the process with clear point-of-sale materials and improved online functionality.
- Engagement of PSE's customers with a quality high-efficiency showerhead. This
 outreach occurs at engagement events throughout its electric and electric-natural
 gas combined service territory. Unlike the direct-mail delivery, this delivery gives
 PSE a personal touch where it is able to answer customer questions and engage
 in other energy-efficiency messages.
- Partner with retailers and manufacturers to provide the best customer value such as, but not limited to; limited-time-offers and merchandising activities.

Incremental marketing strategies:

- Get customers to the retail stores and once there engage them to buy energyefficiency products that meet PSE's programs.
- While shopping, provide customers with a positive interaction with energyefficiency, even if only for a moment.
- Promote comfort and convenience across all offerings.
- Integrate low income program components wherever possible.





Outreach Plan

The Energy Efficient Communities team (EEC) develops and implements outreach strategies to promote PSE's residential and commercial energy efficiency programs and services.

The Retail Channel's 2014-2015 focus is on "quality over quantity of programs and measures." The channel intends to focus on delivering effective customer value through utilizing market research intelligence, measured testing, assessment, refinement, and testing once more based on results. This approach ensures that retail strategy and company strategy are aligned, particularly with respect to PSE's established process of providing customer outreach to locations of opportunity within PSE's service territory.

The outreach strategy for the Retail Channel mirrors this shifting alignment. In order to match the Retail Channel's need to assess and refine program initiatives, the Energy Efficient Communities team will prioritize outreach tactics which will get program information and energy efficient products directly into customer hands. This will be done using strategies such as community blitzes, contests, open houses, community events, promotion of limited time offers (LTOs), community presentations, door to door engagement, and internal PSE employee training.

 Because the Energy Efficient Communities team has line of sight to the needs of other channels and departments, the team will work with marketing to ensure that outreach strategies and mass marketing strategies complement each other to maximize visibility and customer engagement. Additionally, the EEC team will work to leverage partnerships with other PSE departments to present a more coordinated effort to its customers.





Overall Retail Channel outreach strategies:

- Promote appliance, showerhead, and lighting rebates and limited time offers at applicable community events.
- Working with Retail to ensure in-store promotional events are fully staffed.
- Select communities to deliver home energy reports and web-enabled thermostats in consideration of heat map information.
- Host community informational events for customers selected to participate in the web-enabled thermostat program.
- Direct to customer/door to door outreach promoting. Retail programs, as well as engagement with community partners who can help spread the word through their communication channels.





Dealer Channel

As summarized in the Residential Energy Management introduction on page 5, the Dealer Channel's target market constituency consists primarily of resellers and contractors that sell, install, and service HVAC systems, water heating systems, windows and insulation, as standalone measures, or through comprehensive Home Performance activities that may include home energy assessments, audits and all-inclusive home retrofit services. The Dealer Channel operates primarily within the structure of Schedule 214; Single Family Existing. Programs within this channel are delivered to customers mostly through contractors.

HomePrint

HomePrint Assessments provide customers with a FREE in-home service performed by a PSE qualified independent HomePrint Specialist. The program is intended to increase the awareness of customers regarding their home's energy consumption and identify cost-effective ways to use less energy. Additionally, customers benefit from instant energy savings from the direct installation or distribution of leave-behind high-efficiency products to include, but not limited to, light bulbs and showerheads.

Weatherization

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

Space and Water Heating

The program manages incentives and installations of heating and water heating systems, including but not limited to gas furnaces and boilers, heat pumps, hydronic systems, and domestic water heaters.

Target Market

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





Customer Incentives

Eligibility criteria are based on established cost effective tests. The incentives are effective January 1, 2014. A list of all requirements for incentive eligibility and participation can be found on individual incentive or program application forms. PSE's Energy Efficiency Services maintains a comprehensive list of approved conservation Measures in its List of Measures, Incentives, and Eligibility. The Company reserves the right to adjust incentives based on market variables.

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

- Weatherization
- Space Heating
- Showerheads
- Water Heating
- Appliances
- Refrigerator decommissioning
- Lighting and Electronics
- HomePrint Assessment
- Home Energy Reports

Marketing Plan

Dealer Channel

As PSE positions itself for 2014-2015, it will renew its focus on the customer as part of the marketing strategy.

PSE will examine market potential through three separate lenses:

- Telescope: with this view, PSE will be looking at the broad trends of the market within its service area to better anticipate customers' needs related to energy efficiency.
- Binoculars: this view will allow increased focus on the backdrop of market activity, identifying how PSES customers are interacting, where they're obtaining information and through which preferred channels. This will allow for a more integrated view of the customer decision journey, which will improve marketing cost-effectiveness and program transactions.





 Microscope: this close-up view will provide more personalization with the customer and provide the ability to humanize the value proposition. Ultimately, PSE's interaction with customers will be; immediate ("now"), valuable ("I can"), relevant ("for me"), and easy ("that's simple").

With the use of data analytics and the propensity modeling pilot PSE implemented in 2013, it will continue to strive for a more targeted campaign delivery. PSE will also be utilizing other technology from vendors to achieve the different perspectives (as noted above) to help achieve target goals and enhance the customer experience.

PSE will continue to collaborate with the retailer/direct-to-consumer channel in developing strategic, integrated customer merchandising plans. PSE's Contractor Alliance Network is also a crucial conduit to its customer and it intends to further enhance that interface component with complimentary incentive programs and limited-time offers.

PSE will be marketing Dealer Channel programs through a mix of both traditional and digital media. From a cost-effective standpoint, bill inserts and PSE.com home page banner ads will continue to be used, along with on-hold messaging. Social media still plays a viable part of building program awareness, through Facebook® and Twitter. As PSE tests/measures all paid media it will be utilizing to drive transactions and awareness for the Dealer Channel's incentive programs, it will be able to determine which specific deliverables will are most effective. These include; radio, TV, online, streaming services, transit, outdoor and sports marketing.

Here are some of the top marketing strategies, by program, PSE has identified for 2014:

HomePrint Assessment

- Continue to utilize a more targeted/customized follow-up mechanism with HomePrint Assessment recipients to increase action level of recommended efficiency retrofits.
- Drive cross-channel opportunities within its contractor network to supplement the program delivery.
- Drive participation from PSE's gas customers as PSE develops this new market opportunity.

Space Heating

- Continue to collaborate with manufacturers and retailers on targeted campaigns.
- Enhance customer awareness, through new media channels, on existing incentive programs such as high efficiency fireplaces for electric customers.





Water Heating

- Continue to collaborate with manufacturers and retailers on targeted campaigns.
- Create deliverables on promoting integrated space and water heating systems.
- Enhance customer awareness, through new media channels, on existing incentive programs.

Weatherization

- Continue to build awareness/drive transactions on whole-house air sealing and PTCS duct sealing measures.
- Create enhanced marketing initiatives for windows using limited-time offers, and to reengage PSE's gas customers as it develops this new market opportunity.

Incremental marketing strategies:

- Facilitate the design and production of new program collateral as necessary.
- Continue to promote "Limited-Time-Offer" and "Matching Rebate" campaigns on various program measures.
- Drive customers to the CAN self-referral web page for all incentive programs.
- Integrate financing option messaging whenever appropriate.
- Continually strive to enhance the customer experience.

Outreach Plan

- The Energy Efficient Communities team develops and implements outreach strategies to promote PSE's residential and commercial energy efficiency programs and services.
- The outreach strategy for the Dealer Channel focuses on getting program information directly into customer and contractor hands. This will be done through a variety of outreach mechanisms, including community blitzes, contractor open houses and trainings, community events, limited time offer promotion, presentations, door-to-door engagement, and internal PSE employee training. The Energy Efficient Communities Team will work with Marketing to ensure that mass marketing strategies and outreach strategies complement each other to for desired visibility and customer engagement.





- Another mechanism with which the team will conduct outreach is through partnerships with other PSE departments. For example, leveraging service improvement/extension projects, like new natural gas main installations, to promote fuel conversion rebates. By maximizing opportunities such as these, the customer is able to obtain natural gas service at a lower cost, while receiving sizable rebates. In addition, PSE is able to claim the electric savings, reduce community impacts for road restoration, and illustrate a more coordinated approach to serving the customer's needs for reliability, energy efficiency, and fuel choices.
- All of these outreach strategies will be implemented recognizing the strict need for ensuring equity/fairness to customers and contractors alike throughout PSE's entire service territory.
- Overall Dealer Channel outreach strategies:
 - Plan and execute local, community level events to promote HomePrint,
 - Host local open houses to enroll additional contractors into the Contractor Alliance Network,
 - Select communities to deliver limited time offers in partnership with local contractors in the Contractor Alliance Network,
 - Deliver residential energy efficiency presentations to various community audiences,
 - Host employee brownbag sessions to build employee awareness of energy efficiency programs and services,
 - Identify and recognize contractors for their contributions at the local level,
 - Promote natural gas conversion rebates in areas where new gas main is being installed,
 - Host contractor trainings, networking events and informal "check ins" at local offices.





Single Family Fuel Conversion

Schedule E216

The Single Family Fuel Conservation program is included in the Dealer Channel suite of offerings, although it is listed in Conservation Schedule 216.

Purpose

Residential Energy Management's Fuel Conversion program acquires cost-effective electric energy savings from existing single-family (less than or equal to four units on a parcel) retrofit Measures and services by converting to natural gas customers who use electricity as the primary source for their space heat and/or water heat uses.

Description

The Company provides incentives for replacing existing electric forced-air or zonal space heating equipment and/or electric water heating equipment with high efficiency natural gas space heating equipment⁴ and/or high efficiency natural gas domestic water heating equipment.

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

⁴ As outlined in the Company's Schedule 216, **Section 1, Availability/Eligibility**, the equipment to which the Customer is converting must be "highly efficient natural gas space and/or domestic water heating..."





Customer Experience

The Fuel Conversion program is built around the goal of providing an excellent customer experience by removing barriers to participation, educating customers on the reduced cost and increased reliability of the direct use of gas, and ensuring clear and accurate communication.

The Fuel Conversion program works toward re-engineering the value chain by providing the customer with choices that will assist them in managing their energy costs and easy access to the information that they will need to be successful in using less energy.

Target Market

The target market for the Fuel Conversion program is existing Single Family Electric Service customers on or near gas mains with specific annual electricity usage.

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

Customer Incentives

Fuel conversion incentives are prescriptive and based upon the Measure type installed and the kWh usage the Measure offsets. Eligibility criteria are based on established cost effective tests and prior electrical usage as primary heating source for space and/or water heating. The incentives are effective January 1, 2014. A list of all requirements for rebate eligibility and participation can be found on individual rebate or program application forms.

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

- Space Heating,
- Water Heating.




Marketing Plan

The fuel conversion incentive participation process was simplified to remove barriers to participation. Even though the prospective conversion customer is a targeted audience, by nature of the availability of gas to the home, PSE will continue to build program awareness by messaging within its conventional media channels. PSE will also supplement this with its geospatial capabilities and use localized media (for example, outdoor billboards) as part of its marketing strategy.

Primary marketing tactics include:

- Continue to focus on the "low hanging fruit" of water heat conversion by pinpointing specific criteria and target market to those high potential customers.
- Continue to engage partnerships with other natural gas providers in joint bill inserts.
- Key in on conversion opportunities as PSE implements its bare steel initiative.
- Integrate measure with PSE's residential water heater leasing program, as appropriate.





Multifamily Existing

Schedule E217, G217

The Multifamily Existing program is a part of the Residential Business-to-Business channel, along with Low Income Weatherization, (page 6), and Residential New Construction (page 33).

Purpose

The objective of the Multifamily Existing program is to increase the installation of cost effective energy efficient Measures into existing multifamily (MF) buildings with PSE natural gas and/or electric service.

Description

The Multifamily Existing program is designed to increase the uptake and installation of selected energy efficient Measures in existing multifamily buildings with five or more attached residential dwelling units located in PSE's electric and natural gas service areas. The team works with property owners, managers, trade ally contractors, and tenants to encourage program participation. The program also serves multifamily campuses which have a mixture of building types including buildings with less than five units. Multifamily structures and campuses typically have opportunities for upgrades in the units, common areas, and building envelope. Measures may include windows, insulation, and air sealing enhancements; appliance, lighting, and HVAC upgrades; O&M improvements; behavioral modification; and calculated commercial upgrades such as central boilers and solar pool heaters. This program targets installation of energy efficient measures occurring during planned retrofit and replace upon failure. PSE will update current measures list and incentives as needed.

Customer Experience

The Multifamily Existing program provides a one-stop-shop model with a single point of contact which simplifies the participation process through integrating all available PSE products and services. This approach removes several barriers to participation through offering free energy audits, streamlining the application process, capitalizing on all cost effective savings opportunities, and reducing the split incentive conflict. The program also incorporates other value added services such as providing pre-screened contractor referrals, increasing tenant engagement/education, and helping property owners prioritize improvements within their existing portfolio.





Target Market

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

Customer Incentives Overview

Measure incentive eligibility criteria are based on, but not limited to, established industry standard cost effectiveness tests, structure type, fuel type (gas or electric), product type, and product quantity. A detailed list of Energy Efficiency's Measures, Incentives and Eligibility are included in Exhibit 4.

Marketing Plan

Key marketing strategies for the Multifamily Existing program work in tandem with the program's business development team to expand and build a prospect network in a changing market. Outreach efforts help to increase program participation with multifamily property owners and property managers, leverage relationships with trade ally contractors, and raise tenant awareness on the value of in-unit energy efficiency upgrades and how tenants play a part. The primary promotional strategies include but are not limited to:

Industry Events and Membership Collaborations

Industry events are a strong lead generating tool for the program – it's one of the best ways to quickly get face-time with contractors and property owners. The program partners with several multifamily associations who manage these types of events. The program leverages outreach through various association memberships such as the Washington Multifamily Housing Association (WMFHA) and the Rental Housing Association (RHA). These partnerships broaden the program reach to provide venues where members can collectively engage. The program targets several large-scaled exhibitions that are comprised of MF property owners, on-site leasing managers, maintenance personnel, contractors, suppliers and associated professionals. In addition to attending conferences, there are several workshops and presentations held throughout the year that provide additional networking opportunities, learning, recognition and motivation with smaller organizations. The promotional tactics used to support this strategy include:

- Booth & tabletop displays,
- Booth materials: brochures, drawings, signage,
- Program handbooks: company and program profiles, logo usage and applicable advertisements,





- Pre-event advertising (publications, e-news, e-vites, web),
- Presentation leave behinds,
- Post event surveys/debriefs,
- Tracking leads generated for ROI.

Education, Communication & Awareness

Maintaining consistent program communication, awareness and energy efficiency educational elements are complimentary to the success of achieving savings target goals. Some of PSE's key initiatives to elevate education, communication and awareness may include:

- Increased distribution/penetration of Energy Savings Tips brochure,
- Availability of energy use monitoring devices,
- Quarterly e-Newsletter to property managers and contractors,
- Energy challenges to bolster tenant engagement and encourage behavioral modification,
- Energy efficiency certification/recognition to promote property management participation in PSE programs,
- Developing new materials to promote the beneficial components of Energy Star[®]
 Portfolio Manager and PSE's Automated Benchmarking System,
- Dedicated Energy Advisor to capitalize on Direct Install customer engagement opportunities and help promote related PSE products & services.

Collateral Development

To complement the program's business development outreach efforts, promotional materials are designed and produced to effectively communicate key messages and highlight the benefits of the efficiency measures to target audiences. Persuasive collateral is used during direct customer engagement, site visits and event outreach as well as a cross-selling tool for program contractors. Educational leave behinds are also designed to help tenants understand the immediate and long-term benefits of installations. The collateral development strategy may include but is not limited to the following materials:

- Executive summaries,
- Direct installation notices,
- Case studies,





- Cross utility interaction,
- Service area maps,
- Recycling educational brochures,
- Third party business cards,
- Customer participation surveys.

Advertising Campaigns and Media Relations

To generate program awareness amongst multifamily customers, various advertising campaigns are launched through multiple means or channels to make customers aware about its presence in the market. The program typically uses a bundled approach to highlight measures and program benefits.

The advertising and media relations tactics used may include:

- Print advertisements in trade publications,
- Contractor advertising co-operatives,
- Direct Mail and/or e-blasts,
- Online/Website Development,
- Newsletters,
- Internet advertisements,
- Social media,
- Television,
- Radio,
- PR / Editorial coverage.

Outreach Plan

The Energy Efficient Communities team develops and implements outreach strategies to promote PSE's residential and commercial energy efficiency programs and services. The outreach strategy for the Multifamily program will work with customers and with business partners. The team will provide tenant customers with information about applicable products and services that PSE provides, and help deliver information to property managers/owners, designers, building development teams, and builders. This will be done through a variety of outreach mechanisms, including multi-family complex open houses, new home builder shows and demos, Low Income customer EE program awareness campaigns, community events, presentations, and internal PSE employee trainings.





The Energy Efficient Communities Team will work with the program team leads and marketing to identify ways to reach Multifamily partners in conjunction with other mass marketing strategies developed for Retail and Dealer channels.

Overall Multifamily Channel outreach strategies:

- Identify projects and reach development teams early in design process.
- Host local open houses to enroll condominium customers to programs and to educate apartment tenants to EE efforts taken on by their property manager and what they can do on their own.
- Drive traffic to new construction homes shows and demos.
- Deliver energy efficiency presentations to various community audiences.
- Host employee brownbag sessions to build employee awareness of energy efficiency programs and services.
- Identify and recognize business partners for their contributions in serving PSE's customers.





Residential New Construction

Schedule E215, G215; applicable to single family construction Schedule E218, G218; applicable to multifamily construction

The following discussion applies to new residential construction, both single-andmultifamily structures. Conservation Schedule terms and conditions, as outlined in the above-noted Schedule numbers, govern the applicability, measure types, funding, analyses and general rules and provisions for each structure classification. Where there are specific requirements, service offerings, measures, incentives, marketing, or outreach applicable to the specific structure type, those are so noted in each of the following sections.

Purpose

The Residential New Construction program acquires cost-effective energy savings from single-family new construction (single, duplex, and townhomes) and multifamily new construction projects that increase the installation of energy efficient Measures into new electric & gas heated buildings constructed in the PSE service territory.

In addition to newly constructed single-family structures, covered under terms of Schedule 215 (for both gas and electric service) Residential New Construction will include multifamily structures, per Washington State Energy Code 2012 Edition (effective July 1, 2013). Multifamily units are covered under terms of Schedule 218 (for both gas and electric service). These structures typically have both in-unit and common area energy-savings opportunities. These include, but are not limited to, energy efficient upgrades to building shell, appliances, lighting, HVAC and water heating systems.

Eligible customers for both single-family and multifamily new construction include owners, developers, or agents acting on behalf of a responsible party of service receiving electricity or natural gas through PSE. This program provides financial incentives to the above audience for both natural gas and electric residential and commercial meters. The incentives offered are both prescriptive and calculated.

In the new construction marketplace, high efficiency measures need to be specified and installed during design and construction. Otherwise, it may be up to 30 years before energy efficient changes to the buildings will take place. For measures and incentives that apply to existing multifamily structures, please refer to the Multifamily, Existing program measures in Exhibit 4: Measures, Incentives and Eligibility.





Description

Rebates and incentives are offered to eligible natural gas and electric PSE new construction developers, contractors, trade allies and customers (cumulatively, the program refers to these as "partners") who are constructing new single-family residential structures and multifamily buildings. The program also works with these partners to market energy efficient equipment to their customers. Energy Efficiency encourages the purchase and installation of energy efficient products for their construction projects.

For new residential construction projects, financial incentives are packaged under one grant and are structured to work in accordance with current Business Energy Management programs. PSE provides a single "point of contact" to development teams for all energy efficient measures and/or upgrades. This allows PSE to maximize the energy savings opportunity in each development and reduce multi-program confusion for the customer.

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

Structures include but are not limited to single-family dwellings, duplexes, apartments, town homes, condominiums, dormitories, affordable housing, low-income housing, workforce housing, and assisted living residences.

There may be any combination of residential and commercial meter mixes in each type of construction. Once the meter type mix is confirmed with the development team, the appropriate PSE programs are identified to serve that development. Incentives include a variety of end-use classifications, not limited to:

- Lighting: Common area,
- Appliances: Clothes washers, refrigerators,
- Ventilation; in-unit whole-home or common area,
- HVAC equipment upgrades
- Northwest ENERGY STAR Homes incentive
- Manufactured homes: Energy Star® or EcoRated Manufactured homes, which is unique to this program.





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

Target Market

The target market for this program may include but is not limited to single family and multifamily new construction builders, developers, architects, mechanical and electrical engineers, lighting designers, property owners, contractors, retail partners, housing authorities, efficiency equipment suppliers, distributors and manufacturers.

Customer Incentives

Measure incentive eligibility criteria are based on, but not limited to, established, industry-standard cost effectiveness tests, structure type and location within the PSE service territory, fuel type (gas or electric), product type and product quantity. The incentives are effective January 1, 2014. Energy Efficiency's List of Measures, Incentives and Eligibility are included in the Biennial Conservation Plan as Exhibit 4. PSE may, at its sole discretion, adjust rebates based on market variables.

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

Incentive schedules are identified by heat source. Calculated incentives will be offered based on standard energy efficient calculation practices. Incentives may be paid upon completion of work and submittal of required program documentation.

Field inspections and audits will be conducted at random to ensure quality installations and verify completion of work.

Type of rebate/incentive

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





Marketing Plan

The Residential New Construction program uses a diverse mix of integrated marketing, promotion communication strategies and tactics to ensure customer awareness and participation. The primary objective is to elevate program awareness to building partners and help educate their customers (homebuyers) about the benefits of building and living in an energy efficient home.

The program also uses a mix of marketing activities to reach the designers, builders, owners, and developers of new multi-unit residential structures.

The primary high-level strategies used to help penetrate the market include the following:

Green Building Cooperatives

The Residential New Construction program's partnership goal with various green building associations is to increase the number of homes certified through Northwest Energy Star® Homes and Built Green programs, plus promote the benefits of purchasing a green certified homes. Green building cooperatives help PSE to extend visibility using less money – has a broader reach than what could be obtained independently. Partners promote PSE's energy efficiency programs, green building, Energy Star® Homes, and building practices that result in energy efficient homes. Key partners include but are not limited to: Northwest ENERGY STAR HOMES; Master Builder Associations (King, Snohomish, Pierce, Central, Skagit, Island Counties); Sustainable Connections; AIA Seattle; and Cascadia Green Building Council.

The program uses a bundled approach to release reoccurring messaging and updates to its primary and secondary target audiences. It will also develop a strategy based on the developing market conditions and affordable opportunities in appropriate publications. Advertising and collateral will include, but not be limited to:

New Business Development

New program management brings new contacts and knowledge of the marketplace that will enhance the Residential New Construction efforts at this time.





There is a current opportunity to take advantage of the in-house knowledge of architects and developers who are currently or recently working in the residential arena.

- Review of publications and lead-finding information.
- Meetings with designers and developers.

Coordination with Other Energy Efficiency and PSE Programs

- Cross-promote Residential New Construction program with BEM New construction program.
- Cross-promote Residential New Construction program with gas development program.
- Work with Energy Efficient Communities Staff to promote program.
- Utilize existing PSE media including Builder Newsletter and email blasts when appropriate.
- Work with PSE's Corporate Communications to publicize significant projects.

Advertising and Collateral Development

The program uses a bundled approach to release reoccurring messaging and updates to its primary and secondary target audiences. It will also develop a strategy based on the developing market conditions and affordable opportunities in appropriate publications. Advertising and collateral will include, but not be limited to:

- Direct-to-builder brochures
- Direct mail and advertisements
- Newsletters
- Online/website development
- Consumer education: bill inserts, model home signage, builder cooperatives
- Cross program positioning: Community Outreach and Education, Gas Growth, REM
- Other PSE division collaborations: Customer Construction Services and CRM's





Industry Events and Builder Relations

As a lead-generating tool and to increase program awareness with large volumes of industry partners, builders, contractors, suppliers and associated design professionals, the program exhibits at various green building conferences and exhibitions as well as presenting to smaller organizations and workshops. Primary promotional tactics include:

- Development of displays and signage.
- Design and production of collateral materials.
- Pre-event advertising (publications, e-news, e-vites, web).
- Post event surveys/debriefs.
- Tracking leads generated for ROI.
- Continue to participate in conferences and tradeshows.
- Host or co-host events for customers and contractors with other programs.
- Continue to co-sponsor the MBA at a modest level.

Outreach Plan

The Energy Efficient Communities team will work with program team lead in a variety of outreach initiatives in 2014-15 to support the New Construction program, to include:

- New construction Homes and apartments/condominiums,
- Outreach to the development community,
- Promote new construction programs to municipalities,
- Promote energy efficient new construction at industry events.





<u>Pilots</u>

Schedule E249/G249

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

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

Residential Individual Energy Report Pilot

In the 2014-2015 biennium, the Residential Energy Management Sector will conduct a pilot based on its successful Home Energy Reports. The pilot is testing an expansion of individual energy reports in three classifications:

- Rural Customers,
- High Relative User, Low Frequency,
- Electric-Only.

Pilot Assumptions

Rural Customers

It is PSE's hypothesis that rural customers save energy at the same rate as suburban and urban customers despite differences in their neighbor distances and more diverse peer groups. The pilot program will be operated with the following guidelines:

- a) Opower and PSE will work jointly to establish selection criteria for dual-fuel customers in a diverse geography of the service territory, particularly a selection of rural customers.
- b) PSE and Opower will investigate the minimum population quantity needed to ensure that results are verifiable.
- c) KEMA will perform randomization for these customers to be included.
- d) Opower will enroll these customers within Quarter 4, 2013, using a staggered rollout, for observation and to receive an average of 6 direct-mailed reports per year and up to 12 email reports per year.





High Relative User, Lower Frequency Customers

It is PSE's hypothesis that this segment of customers who have high pretreatment usage, relative to their home size, will save more energy than those who have lower size-relative pre-treatment usage. Targeting a behavioral program to users who can also receive electronic messaging will allow reduced mailing frequency and costs and yield a higher TRC by delivering most of the long-term savings observed in higher paper-based program designs. The pilot program will be operated with the following guidelines:

- a) Opower and PSE will work jointly to determine which customers to target to ensure maximum saving potential.
- b) PSE and Opower will investigate the minimum population quantity needed to ensure that results are verifiable.
- c) KEMA will perform randomization for these customers to be included.
- d) Opower will enroll these customers within Quarter 4, 2013, using a staggered rollout, for observation and to receive an average of 5 direct-mailed reports in year 1, 4 direct-mailed reports in years 2+, and up to 12 email reports per year.

Electric-Only Customers

It is PSE's hypothesis that the customer heating type can be determined with enough accuracy to set up a randomized test to quantify energy savings from an electric-only program and to measure cost effectiveness. This pilot program will be operated with the following guidelines:

- a) Opower and PSE will work jointly to determine which customers to target to ensure maximum saving potential.
- b) PSE and Opower will investigate the minimum population quantity needed to ensure that results are verifiable.
- c) KEMA will perform randomization for these customers to be included.
- d) Opower will enroll these customers within Quarter 4, 2013, using a staggered rollout, for observation and to receive an average of 6 direct-mailed reports per year and up to 12 email reports per year.

In aggregate, PSE plans to engage approximately 100,000 customers in this energy report expansion pilot.





BUSINESS ENERGY MANAGEMENT





<u>Pilots</u>

Schedule E249/G249

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

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

Small to Midsize Business Efficiency Pilot

Purpose

The small to midsize business (SMB) efficiency pilot seeks to evaluate the effectiveness of engaging a select group of business customers through direct-mailed energy reports, e-mail messaging, and a web portal to provide energy usage comparisons, segment-specific energy insights and targeted calls to action for SMBs to save money and improve energy efficiency.

Program Descriptions

The pilot program may include the following elements:

- Direct-mailed Business Energy Reports which may include:
 - o Personalized introduction announcing report's purpose to the SMB owner,
 - *Business comparison* enabling customers to understand what "normal" energy usage is for their given business type,
 - Usage analysis exhibiting use and expenses over time,
 - o Energy best practices to encourage immediate energy-saving behavior,
 - o Targeted program marketing of applicable energy efficiency programs,
 - o Case studies of simple investments taken by similar businesses,
 - Collateral materials such as stickers, checklists, etc. to encourage efficient behaviors.
- Customer e-mail messaging via either an opt-in or opt-out approach to provide seasonal energy efficiency tips, provide electronic copies of direct-mailed reports, etc.





- Customer web portal which may provide:
 - Usage & cost analysis enabling SBMs to understand patterns in energy consumption and costs,
 - Utility program promotion to create awareness of available rebates and efficiency programs,
 - Efficiency tips tailored to SMB customers,
 - Savings plan implementation tools,
 - *Efficiency collateral* that can be downloaded and printed such as stickers, checklists, etc. to encourage efficient behaviors.

Primary Targets

PSE plans to target 10,000 SMBs throughout PSE's service territory. Pilot participants will receive 10 direct-mailed reports over a period of 18 months. The energy usage of the participant group will be compared to control data and evaluated after conclusion of the 18 month period.





Commercial/Industrial Retrofit

Schedules E250, G250

Purpose

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

Description

PSE works with Commercial and Industrial customers to provide incentives for costeffective energy efficiency upgrades to lighting, equipment, building shell, industrial process, and select O&M improvements. These services are provided on the customer's behalf and, where specified by the customer, will be developed in conjunction with design engineers, contractors, and/or vendors.

PSE conducts site assessments to identify savings opportunities, verify existing equipment and system operations, and makes recommendations to customers. PSE also reviews third-party savings estimates and analyses, and when required performs inhouse analyses to validate energy savings. PSE works with financial decision makers at the customer's facility to ensure the customer is aware of cost-savings opportunities, including review of energy saving projections that can help obtain favorable financing rates.

Commercial/industrial retrofit projects commonly include: lighting system upgrades, HVAC equipment upgrades, HVAC controls improvements, commercial refrigeration Measures, and industrial process modifications. Additionally, incentives for existing building commissioning (O&M) improvements are provided through the Comprehensive Building Tune-Up (CBTU) Program.

Upon the customer's decision to proceed with a project, PSE issues a standardized Conservation Grant Agreement and Grant Attachment that establishes terms and conditions for participation in PSE's Custom Grant Program and also explains how the measure will be verified. After the agreement is signed by both parties, the customer is given notice to proceed with the energy efficiency project.





Following completion of the project, PSE verifies the installation and energy savings via an on-site inspection, review of equipment operation and trend log data where necessary, and collection of project invoicing and specifications of installed equipment.

In addition to Commercial/Industrial Retrofit Custom Grant offerings, PSE contracts with industry experts to develop and implement cost effective programs tailored to the unique needs of target markets. Measure-specific incentives are provided through these contracted programs:

Industrial System Optimization

The program focuses on operational and maintenance (O&M) Measures to be verified through custom analysis on an individual project or site basis. Incentives are based on actual savings achieved. Customers agree to continue monitoring and verification following implementation to assure persistence of the savings.

Data Center Energy Efficiency

The program focuses on various types of efficiency improvements in customer data centers; for example, server virtualization, hot/cold aisle isolation, airflow upgrades, and cooling system upgrades. The program provides site assessments to identify cost effective energy savings opportunities and offers measure-specific incentives.

Energy Smart Grocer

The program provides audits, technical assistance and Measure-specific financial incentives to grocers who wish to purchase and install energy efficient lighting, refrigeration, HVAC systems and gas efficiency Measures. The program is eligible for both retrofit and New Construction incentives.

Target Market

PSE targets all Commercial and Industrial customers with program offerings and marketing efforts appropriate to given business type, size and operation.

Customer Incentives Overview

Incentives are effective January 1, 2014.

Site-Specific Basis incentives, or "custom" incentives, rely on generally accepted engineering calculations and Measure costs provided by the customer or the customer's contractor.





Electric and gas Measures may receive maximum incentive grants up to 70 percent of the Measure cost when the grant incentive does not exceed the cost-effectiveness standard, less program administration costs. Measures where cost exceeds the cost-effectiveness standard will receive grants that are on a declining scale and will be less than 70 percent of the Measure cost. Generally, electric and gas Measures that have a Simple Payback of less than one year are not eligible for a Site-Specific Basis incentive. *Prescriptive Basis incentives* are provided for Commissioning and Optimization of Existing Buildings and for Measures that are eligible for rebates under Schedule 262E/262G, Commercial and Industrial Incentive Program. The incentive amount for a Measure is the same as that which is available under Schedule 262E/262G, but energy savings may be calculated based on actual Site-Specific conditions.

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

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

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

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





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

Measure incentive eligibility criteria are based on, but not limited to, established, industry-standard cost effectiveness tests, structure type and its location within the PSE service territory, fuel type (gas or electric), product type and product quantity. A detailed list of Energy Efficiency Services' Measures, Incentives and Eligibility are included as Exhibit 4 of the 2014-2015 Biennial Conservation Plan.

Marketing Plan

PSE's Custom Retrofit Grant Program primarily relies on the following channels to maintain an abundant quantity of custom retrofit project leads: repeat program participants, internal PSE channels such as Business Services and Energy Efficient Communities, and trade ally relations with contractors, engineering design firms and energy services companies (ESCOs).

During economic downturn, trends have been an increased quantity of smaller projects, likely due to economic challenges faced by building owners and managers. Business Energy Management (BEM) has responded to this trend with an increased focus on programs that reward operational efficiency upgrades such as the Comprehensive Building Tune-up Program and contracted programs aimed at greater energy efficiency in data centers and industrial operations.

Communications

PSE will to communicate about C/I Retrofit program offerings as follows:

- Revamp collateral to be more industry specific rather than measure specific, encouraging more comprehensive participation in PSE efficiency programs.
- Incorporate myPSE branding into materials as they are refreshed for greater cohesiveness of program information and increased customer awareness of PSE's comprehensive efficiency program offerings.
- Revamp web content to better align with customer needs and more-effectively communicate program offerings.
- Leverage other PSE customer-facing departments to communicate PSE Efficiency Program information.





Coordination with PSE Staff and Departments

Routine communications with internal PSE channels responsible for direct communication with customers and others who influence decisions about energy efficiency, such as public officials, will yield greater program awareness.

- Proactive coordination with Energy Efficient Communities staff.
- Regular meetings and communications with Business Services staff, including Major Accounts Executives and Business Accounts Managers.
- Routine updates to PSE Energy Advisors about programs.
- Collaboration with PSE media outreach and social media teams to publicize significant projects and program offerings.

Coordination with Program Providers

PSE Corporate Communications will coordinate all messaging and marketing efforts by contracted third party programs, including:

- Energy Smart Grocer.
- Industrial Systems Optimization.
- Data Center Energy Efficiency.

Coordination with Trade Allies

PSE will continue to work with contractors, engineers and ESCOs who develop and deliver custom retrofit energy efficiency projects and who communicate with building owners and managers about PSE's programs. Coordination efforts will include the following:

- Participation in meetings to update trade allies on program offerings.
- Providing information about PSE's role in energy efficiency retrofit projects.
- Coordination with trade allies on PSE energy efficiency program messaging.
- Expansion of Contractor Alliance Network (CAN) into the C/I sector of trade allies.
- Leveraging of the Northwest Trade Ally Network for promotion of lighting efficiency offerings.





Industry and Customer Events

- Continue to participate in relevant conferences and tradeshows.
- Host, co-host or attend PSE outreach events for customers and contractors where energy efficiency message is relevant to the audience.
- where energy efficiency message is relevant to the audience

Outreach Plan

Energy Efficient Communities staff will develop and implement outreach strategies to promote program offerings by leveraging EEC and other regional teams' understanding of local communities to identify project opportunities and increase awareness of program offerings with the larger public. Strategies may include the following:

- Presentations to Chambers of Commerce, Visitors and Convention Bureaus, restaurant and hospitality associations and other trade associations to publicize program offerings.
- Leverage relationships with local governments and other entities to gain awareness of new commercial and industrial developments, and connect developers with program offerings.
- Identify business customers whose energy efficiency achievements illustrate results of PSE program participation and highlight their successes at events, in case studies and through media outreach to increase awareness of program offerings.
- Organize small-scale events at location of employers to educate employees on efficiency actions taken at the site by the employer and additional energy savings opportunities, including opportunities at both work and home.
- Host sessions internally for PSE staff to increase employee awareness of programs, providing increased communication to customers regarding energy efficiency programs.





Commercial/Industrial New Construction

Schedules E251, G251

Purpose

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

Description

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

The first path is similar to the retrofit program where component Measures are evaluated individually and funding is based upon cost-effectiveness. Under this approach, customers may receive up to 100 percent of the incremental cost over a code-compliant baseline option.

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





The third path includes Prescriptive Basis incentives for Measures that are eligible for rebates under Schedule E262/G262, Commercial and Industrial Incentive Program. The incentive amount for a Measure is the same as that which is available under Schedule E262/G262, but energy savings may be calculated based on actual Site-Specific conditions and Code Baseline adjustments, if necessary.

New Construction Commissioning focuses on the post-occupancy phase of a new building, with the intent to lead owners and facility operators beyond Code required commissioning to expand their capability to operate the building efficiently by providing training, documentation of efficient operation (charts, performance targets, operating criteria, flags of inefficient operation, etc), review and recommendations based on seasonal performance and strategies.

In addition to these paths for New Construction efficiency incentives, PSE makes Energy Smart Grocer program offerings available to new construction projects in the grocery sector, providing expert technical assistance and Measure-specific financial incentives to grocers who wish to purchase and install energy efficient lighting, refrigeration and HVAC systems that exceed Code minimum efficiency requirements or industry standard practice where Code requirements do not exist.

A complete listing of available incentives is provided in Exhibit 4 of this 2014-2015 Biennial Conservation Plan.

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

Target Market

Owners and developers of commercial or industrial facilities to be served by PSE with electricity or natural gas are eligible for new construction incentives. Also targeted are market actors, including but not limited to, owner's representatives, trade allies, development organizations, property management companies, and financing organizations.

Customer Incentives Overview

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





- *Component Measure incentives:* For energy-efficient Measures with a simple customer payback greater than one year, PSE provides grants toward the incremental installed cost of the Measure. Maximum grants will be based on the Company's cost-effectiveness criteria. Electric and gas Measures may receive incentive grants up to 100 percent of the incremental Measure cost where the grant incentive does not exceed the cost-effectiveness standard less program administration costs. Measures that exceed the cost-effectiveness standard will receive grants that are on a declining scale and will be less than 100 percent of the Measure Cost. In instances where project first-costs, site conditions, or operational parameters lead to a customer fuel choice that would offset gains from implemented efficiency Measures, incentives for fuel switching may be provided; however, choices that totally eliminate the need to provide an energy source to the site are not eligible.
- Whole Building Approach incentives: PSE provides incentive for projects designed and built to be at least 10 percent more energy efficient than a Code baseline building built under the applicable Energy Code. Under the *energy model whole building approach*, PSE will offer an increasing incentive amount for efficient designs that exceed the Energy Code baseline by 10 percent, prorated to a maximum incentive for buildings that exceed the Code baseline by 30 percent or more. The *energy model whole building approach* incentive, based on percent savings, may be reduced if it does not meet the Cost Effectiveness Standard.

Eligibility for Whole Building incentives: Whole Building Incentives are designed for buildings which will receive electric service from PSE and natural gas service from either PSE or another provider in the future. Projects to be served only with natural gas from PSE do not qualify for whole building incentives.

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





- *Prescriptive Basis Incentives:* Rebates for equipment listed under the electric/gas Commercial and Industrial Rebate Incentive Program are available for new construction except when required by the applicable Energy Code. Prescriptive Basis Incentives are not available, however, when there is an energy interaction with Measures proposed under the *whole building approach* or the *component approach*.
- Post Occupancy Building Commissioning: If the customer engages the services of a commissioning agent who is independent of the design and construction team, then the customer may be eligible for an incentive. To qualify for this incentive, post-occupancy commissioning shall focus on energy efficiency and all significant energy-using systems. As a minimum, lighting, HVAC, envelope and domestic hot water systems must all be commissioned.

PSE will consider the Measure cost as that portion of the commissioning agent services that will impact energy efficiency on the project. The savings shall be assumed to be a percentage of the building's estimated annual energy use. This percentage will be based on studies of the energy savings impact of commissioning.

During the first year of occupancy, the commissioning agent, using site meter billing data from PSE as well as any customer energy DDC monitoring, shall analyze the building's energy use and assist in final energy optimization of the energy consuming systems.

The commissioning agent shall prepare (or update if one already exists) a systems manual describing the major energy using building systems (HVAC, lighting, DHW, etc.), including control sequences, operating set points, schedules, and procedures for testing and verifying proper operation of the equipment and controls. As part of this post occupancy service, the owner's operation staff shall be trained in how to continue to monitor their energy use and run the building efficiently, using the systems manual as a reference.

Energy-use monitoring: Upon occupancy, the Company may provide secure web site access to facility energy-use data for building occupant, free of charge for up to two years. More typically, access will be free of charge for two years to allow the occupant to verify building and/or Measure performance according to energy-use projections. To be eligible, customers must be on a rate schedule with demand (kW) as well as energy (kWh) charges. Compatible metering and remote data retrieval capability must be in place at the customer's facility. PSE is not obligated to replace or upgrade nonconforming meters.





Customers should use the monitored information to improve energy efficiency at the facility. Customers will demonstrate annual energy savings potential through energy management operations and maintenance as well as identification of further efficiency Measures and equipment upgrades.

Measure incentive eligibility criteria are based on, but not limited to, established, industry-standard cost effectiveness tests, structure type and its location within the PSE service territory, fuel type (gas or electric), product type and product quantity. A detailed list of Energy Efficiency Services' Measures, Incentives and Eligibility are included as an Attachment to the 2014-2015 Biennial Conservation Plan as Exhibit 4.

Energy Smart Grocer. This third party contracted program provides expert technical assistance and Measure-specific financial incentives to grocers who wish to purchase and install energy efficient lighting, refrigeration and HVAC systems that exceed Code minimum efficiency requirements or industry standard practice where Code requirements do not exist.

Marketing Plan

PSE's program for commercial new construction will remain an incentive for building designers and developers to include energy-efficiency Measures that are above and beyond that which is required by the building code.

Market activity for new construction is expected to increase during the 2014-2015 program period yielding new project leads. Due to long lead time for new construction project development, new leads for major projects during 2014-2015 are not likely to contribute energy savings until the 2016-2017 program period.

Communications

- Revamp collateral to reflect customer needs and myPSE brand for greater comprehensive understanding of energy efficiency program offerings.
- Revamp content on PSE.com to be more user-friendly.
- Update standardized content for public presentations.
- Develop case studies that include new construction commissioning and likely rebates or components.
- Incorporate messaging around other services PSE provides for new construction projects beyond incentives for improved customer service and greater participation.





Relations with Trade Allies

Utilize partnerships with trade organizations to build relationships in the construction community and increase awareness of program offerings.

Coordination with PSE Staff and Departments

Collaboration with departments such as Business Services, Energy Efficient Communities and Customer Construction Services who interface directly with customers and developers and have the opportunity to influence decisions about energy efficiency will yield greater program awareness.

Outreach Plan

Energy Efficient Communities staff will develop and implement outreach strategies to promote program offerings by leveraging EEC and other regional teams' understanding of local communities to identify project opportunities and increase awareness of program offerings with the larger public. Strategies may include the following:

- Presentations to Chambers of Commerce, Visitors and Convention Bureaus, restaurant and hospitality associations and other trade associations to publicize program offerings.
- Leverage relationships with local governments and other entities to gain awareness of new commercial and industrial developments, and connect developers with program offerings.
- Identify business customers whose energy efficiency achievements illustrate results of PSE program participation and highlight their successes at events, in case studies and through media outreach to increase awareness of program offerings.
- Organize small-scale events at location of employers to educate employees on efficiency actions taken at the site by the employer and additional energy savings opportunities, including opportunities at both work and home.
- Host sessions internally for PSE staff to increase employee awareness of programs, providing increased communication to customers regarding energy efficiency programs.





Resource Conservation Management

Schedules E253, G253

Purpose

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

Description

PSE offers Resource Conservation Management Services (RCM) to any school district, public-sector government agency, and Commercial or Industrial (C/I) customer with a minimum portfolio baseload to meet cost-effective thresholds. The RCM program targets larger customers with multiple facilities such that the cost of implementation can be recovered through savings achieved. Schedule 448, 449, 458, and 459 customers may utilize their Schedule 258 funding allocation for Resource Conservation Manager Services (RCM).

Customers qualify for the RCM program based on their annual PSE energy purchases. A typical customer baseline for a fulltime equivalent (1 FTE) program is 20,000,000 kWh for electric only or 2,700,000 therms for gas-only service from PSE. Funding levels are prorated based on the amount of staff a customer would need to allocate in order to achieve cost-effective savings from RCM efforts. At a minimum, the customer needs to qualify for 0.25 FTEs to participate in the program on their own.

An RCM customer employs, contracts, or designates existing staff to implement RCM responsibilities, including accounting for resource consumption, assessing facilities, recommending actions, monitoring progress, calculating savings and communicating program information to organization stakeholders.

Monetary grants include a "start-up" grant for completion of deliverables associated with building the program foundation. The start-up deliverables include hiring an RCM, setting up an energy-accounting database, writing a company resource management plan, and completing facility action plans. Once start-up deliverables are complete, the customer may qualify for "performance grants" based on achieving energy savings associated with RCM practices and "performance bonus grants" for meeting or exceeding pre-established energy-reduction targets.





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

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

Program Start Up

- Designing and implementing an RCM program.
- Hiring or contracting a Resource Conservation Manager.
- Developing baselines, policies and guidelines, and facility action plans.

Resource Accounting Software

- Purchase and implementation of resource accounting software.
- Audits of existing databases to review for inclusion of all facilities, accounts, meters, etc., sufficient facility details, missing data, and overall data integrity.

Technical Assistance

- On-site walk-through audits to train customer staff to identify waste and opportunities for improved efficiency.
- Analysis and reporting of savings relative to established baseline.

Education & Training

- Training in fundamental concepts for designated RCM and support personnel such as custodial, maintenance, and facilities staff.
- Educational materials for classroom or building occupant use including checklists, fact-sheets, and calculators.
- Training stipend to support professional development in Building Operation or Energy Management (Training stipend is based on achieving the Building Operator Certification Levels I & II).





Energy Data Services

- Historical and on-going monthly PSE billing data in electronic format for import into resource accounting software.
- Energy Interval Services for internet viewing of facility gas and electric interval meter data.

Cash Incentives

- "Start-up" incentive intended to share the cost of program start-up that is paid upon satisfactory completion of deliverables.
- Performance grants for customers who achieve energy savings after completing their deliverables.
- Performance bonus grants for customers who achieve a pre-established targeted amount of energy savings after completing their deliverables.

The RCM program has also assisted customers in establishing Energy Star Benchmarks for their facilities using EPA's Portfolio Manager. PSE will continue to help customers to identify potential targets, improve energy efficiency to meet award qualifications, coordinate the application and inspection process, and submit material to EPA for Energy Star awards.

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

PSE continues to explore ways to make the RCM program cost-effective for smaller customers. One option is for "Shared RCM" services among a group of smaller organizations, which has generated interest from local governments and other organizations with smaller facility portfolios. With this approach, agencies can combine total portfolio consumption in order to meet the minimum qualifications of the program. A maximum of four organizations with a minimum portfolio of 0.125 FTEs can participate using the Shared RCM approach. PSE efforts will continue to work with RCM consultants, customers, and other support agencies to develop this market. Another option for smaller organizations is a new 2014-2015 program offering called the Strategic Resource Management (SRM) program.





Strategic Resource Management (SRM)

Similar to the RCM program, PSE offers Strategic Resource Management (SRM) to any school district, public-sector government agency, and Commercial or Industrial (C/I) customer with a minimum portfolio baseload to meet cost-effective thresholds. The SRM program targets mid-size customers with multiple facilities such that the cost of implementation can be recovered through savings achieved. Schedule 448, 449, 458, and 459 customers may utilize their Schedule 258 funding allocation for SRM services.

Customers qualify for the SRM program based on their annual PSE energy purchases. The minimum customer baseline to participate in the program is 1,000,000 kWh for electric service from PSE.

An SRM customer employs, contracts, or designates existing staff to implement SRM responsibilities, including accounting for resource consumption, assessing facilities, recommending actions, monitoring progress, calculating savings and communicating program information to organization stakeholders. The assigned person will be the designated the green champion and will serve as the main point of contact for the program.

The SRM program will then match a pre-approved contractor with the green champion. The contractor will spend time with the customer at the start of the agreement to benchmark facilities, host an energy management workshop, implement a resource management plan, perform building walkthroughs, create portfolio action plans, and identify behavior, operation and maintenance (O&M), and capital projects. The contractor will then schedule meetings to confirm progress and will spend additional time with the green champion as the program progresses.

PSE will establish performance targets for the program based on the customer's consumption. Typically, targets will be set for a 5 percent reduction each year.

After each milestone, the contractor will bill PSE for 70 percent of the pre-determined expenses and the customer for 30 percent of the expenses. PSE will provide an incentive to the customer based on energy saving performance, up to the 30 percent of contractor expenses. For savings greater than the target, PSE will provide an additional performance incentive to the contractor.

The SRM agreement is valid for one year. A customer can participate in the program for multiple years as long as they continue to meet or exceed the performance targets. For each year, PSE anticipates a 5 percent reduction in overall energy use. Savings are calculated using industry standard practices and energy accounting methodologies.





Reported annual savings are a variance from the previous year.

Customer Incentives

PSE continues to develop creative incentive options to increase RCM support for a variety of customer segments. The RCM program incentives are as follows:

- Resource Accounting Software PSE will provide a resource accounting software if the customer agrees to maintain the system and provide annual consumption, savings, and activity reports. PSE will also pay for any maintenance fees associated with the software.
- Start-Up Incentive For qualifying organizations, PSE will provide an incentive to help get the program started with initial set-up of utility database and program organization, provided the customer completes the database set-up, develops a resource management plan and outlines facility action plans for their buildings. Customers will receive PSE support tailored to their needs, including staff training, technical assistance, interval metering, and other services.
- Performance-Based Incentives PSE may provide cash incentives to customers who achieve energy savings relating to occupant behavioral practices and improvements in operational and maintenance (O&M) efforts. If customers meet or exceed energy savings targets, PSE will offer a bonus incentive to the customer and an increased performance incentive for additional savings. Energy-savings targets will be based on a typical 5 percent reduction from a 12-month baseline and actual savings will be calculated and verified by PSE. Incentive amounts will meet the current commercial and industrial program cost-effective criteria.

Marketing Plan

PSE's Resource Conservation Manager (RCM) Program utilizes a broad array of marketing materials and training activities to reach its customer base. The nature of the RCM program and its need for ongoing communications efforts with customers blurs the distinction between promotional marketing and customer communications. An integrated approach is required to support this program.

To reach the cost-effectiveness threshold required, PSE's RCM program targets large portfolio-based customers or groups of customers who will be able to recover the cost of implementing their RCM program through resource savings achieved.





As the RCM concept has developed, PSE's program is beginning to experience challenges in the marketplace. Private companies are marketing similar packages of services, creating some confusion and even some departure from PSE's program. Ongoing communications, public relations and RCM training are critical to convey the value and integrity of PSE's program to new and existing customers.

Program Communications to Existing Customers

Support the RCM program with development of information and training materials for customers.

- Update collateral and web pages to be more customer-friendly and incorporate myPSE brand.
- Support for the RCM annual meeting with displays and handouts as needed.
- Establish resources and protocol for webinar trainings.

Marketing Communications to Existing and Potential Customers

Provide marketing materials including brochures, web updates and standard presentation materials to communicate about the RCM program.

- Update marketing materials to incorporate program changes required.
- Continue to develop case studies to demonstrate an array of RCM success stories.

Internal PSE Communications

Communicate key messages about the RCM program to audiences inside of PSE that serve as channels to customers and other stakeholders.

- Provide a conduit for communicating critical updates or program information to the CRM/EE Communities group and the new geographic organization of major accounts.
- Review communications developed by EE Communities.

Publicity

- Work with media outreach and social media teams to publicize successful projects.
- Work with media outreach team to develop articles about RCMs and their accomplishments.





Outreach Plan

Energy Efficient Communities staff will develop and implement outreach strategies to promote program offerings by leveraging EEC and other regional teams' understanding of local communities to identify project opportunities and increase awareness of program offerings with the larger public. Strategies may include the following:

- Presentations to Chambers of Commerce, Visitors and Convention Bureaus, restaurant and hospitality associations and other trade associations to publicize program offerings.
- Leverage relationships with local governments and other entities to gain awareness of new commercial and industrial developments, and connect developers with program offerings.
- Identify business customers whose energy efficiency achievements illustrate results of PSE program participation and highlight their successes at events, in case studies and through media outreach to increase awareness of program offerings.
- Organize small-scale events at location of employers to educate employees on efficiency actions taken at the site by the employer and additional energy savings opportunities, including opportunities at both work and home.
- Host sessions internally for PSE staff to increase employee awareness of programs, providing increased communication to customers regarding energy efficiency programs.




Large Power User/Self Directed

Schedule E258

Purpose

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

Description

This program solicits electric energy efficiency upgrades through a Request for Proposal (RFP) process. C/I customers receiving electric service under Schedule 40, 46, 49, 448, 449, 458, or 459 receive a funding allocation based on their electric usage and are responsible for proposing cost-effective project(s) to utilize their allocation. This is classified as the non-competitive phase.

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

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

In the Competitive Phase, eligible customers respond to an RFP in order to obtain remaining incentive funding that was not claimed during the non-competitive phase. In this phase, eligible customers may have access to funds beyond their original allocation. The competitive phase submittal deadline was July 16, 2013 and received proposals were ranked based on cost effectiveness and other criteria specified in the RFP. Competitive funding was awarded, in order of project ranking, until all funds were allocated to projects.





The next opportunity for eligible customers to apply for funding under this program will be 2015, with key program dates and participation requirements published in PSE's 2015 Annual Conservation Plan.

Target Market

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

Customer Incentives Overview

The incentive budget for eligible customers will be the Electric Conservation Rider revenues less deductions made for the Company's administrative program costs (7¹/₂ percent) and for the Northwest Energy Efficiency Alliance (NEEA) budget line item (10 percent).

During the current program cycle, incentive allocations for customers receiving service under Schedules 40, 46 and 49 will be reduced for collection of administrative program costs and Northwest Energy Efficiency Alliance (NEEA) budget line item costs that were not collected in the previous program cycle. The total Electric Conservation Rider revenue amount and customer allocation will be determined by the Company's State Regulatory and Cost of Service Department.

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

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

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





Measure incentive eligibility criteria are based on, but not limited to, established, industry-standard cost effectiveness tests, structure type and its location within PSE service territory, product type and product quantity. A detailed list of Energy Efficiency Service Measures, Incentives and Eligibility are available as Exhibit 4 of this 2014-2015 Biennial Conservation Plan.

Marketing Plan

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





Energy Efficient Technology Evaluation

Schedules E261, G261

Technology Evaluation Overview

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

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

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

The most challenging situations arise when vendors propose products that are "too good to be true." Often their savings claims are supported by testimonials from satisfied customers, with little or no reliable test data. Many technologies, such as transient voltage suppressors, power factor correction devices and paint with high R-Value, have been known for years to save little or no energy, but the vendor may insist their product is different, even though it may only have a different name on the box.





Fortunately PSE has experience with many of these products, or can readily find others who have had experience. It is important, however, to distinguish between inaccurate claims and those that might truly be the new emerging technology that deserves attention.

Remote Energy Audit Software Evaluation

During the 2014-2015 program period, PSE plans to assess remote energy auditing software services based upon Energy Management Information System (EMIS) platforms. EMIS platforms are software based tools that utilize utility interval data for a variety of capabilities including energy efficiency measure identification, building load disaggregation, and measure savings tracking.

This emerging technology potentially has significant programmatic impacts and PSE seeks to test and learn how EMIS platforms may be used to enhance PSE's existing program offerings through identification and evaluation of potential efficiency measures, motivation of customers to pursue cost-effective efficiency upgrades, and quantification of energy savings achieved from operations and maintenance (O&M) efficiency measures implemented based on recommendations of the EMIS platform.

The goals of this technology evaluation are to:

- Assess and identify benefits and barriers to integrating EMIS remote audit capabilities into PSE's existing business energy efficiency programs.
- Assess the accuracy of EMIS remote energy audit load disaggregation algorithms as compared to on-site assessments.
- Assess the accuracy of EMIS remote energy audit measure identification algorithms compared to on-site assessments.
- Assess the programmatic effectiveness of using an EMIS remote energy audit as a screening and engagement tool, energy efficiency measure identification tool, and savings tracking tool for commissioning, O&M, and capital energy efficiency measures in commercial buildings.
- Enhance customer engagement of PSE's energy efficiency programs in the medium sized business sector.





Commercial Rebates

Schedules E262, G262

Purpose

PSE offers fixed rebates for select, commonly applied Measures to commercial and industrial customers. These rebate Measures have been developed where energy savings can be standardized over a wide variety of applications, and where a competitive market pricing structure exists to ensure cost-effectiveness. The following Measure categories are managed in-house by PSE Staff:

- High Efficiency HVAC (new and retrofit),
- Commercial Washers, gas and electric,
- Commercial Laundry Water Heating,
- Commercial Kitchens, gas and electric,
- Commercial Lighting Rebates (lamps, fixtures and controls),
- Hospitality Rebates.

PSE contracts with industry experts to implement cost effective Measures tailored to the unique needs of target markets. The following Measure categories are offered through contracted programs:

- Premium HVAC Service Program, gas and electric,
- Pre-rinse Spray Valves and Aerator Direct Install,
- Small Business Direct Install Measures.

PSE Program Staff monitors program performance, results and trends. Programs are coordinated closely with the electric and gas Commercial and Industrial Retrofit Program.

Program refinements and cost-effectiveness are reviewed with Engineering Staff, the Evaluation Team, and the Manger of Business Energy Management as necessary on an ongoing basis. Incentive Measures, marketing and the fulfillment process may be modified, as needed, to respond to developments in technology, market conditions, customer acceptance and/or changes in supplier/contractor delivery and pricing.





Target Market

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

Schedule 40, 46 and 49 customers who are eligible to participate in the Schedule 258 Program must first utilize their Schedule 258 allocation before they receive incentives under this program.

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

Multifamily related businesses or those with dwelling units will be referred to the Multifamily program.

Customer Incentives Overview

Most incentives are a flat dollar amount, usually for a "Measure" or "device" that is a "stand alone" unit. Customers can generally select from qualifying models (for instance, washing machines). Some rebates are a flat amount per "unit size" of the Measure, where unit size may be "per ton" or "per horsepower." In some cases, incentives may be tied to square feet of conditioned space because energy savings depend on the size of the building more heavily than the size of the equipment.

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

Most rebates are paid directly to the customer, but may be assigned by the customer to the contractor. For some measures, the rebate can be deducted from the sales price at the point of sale, in which case the participating vendor may be eligible for an additional sales incentive.

Measure incentive eligibility criteria are based on, but not limited to, established, industry-standard cost effectiveness tests, structure type and its location within PSE service territory, fuel type (gas or electric), product type and product quantity. A detailed list of Energy Efficiency Service Measures, Incentives and Eligibility are included as an Attachment to this 2014-2015 Biennial Conservation Plan as Exhibit 4.





Marketing Plan

PSE's Commercial Rebates Program will be proactive in using a mix of marketing and communications activities to reach the decision makers and influencers in the following key business sectors, as well as maintain current and accurate promotional information for all Commercial Rebates incentives.

Hospitality

To promote rebates of benefit to the hospitality industry (hotels/motels), marketing activities will include:

- Print and web materials targeted to this market promoting rebates for packaged terminal heat pumps (guest room HVAC), lighting controls, commercial kitchen equipment, laundry equipment and lighting.
- Targeted promotions such as direct mail or on-bill advertising to hotel/motel owners and managers.
- Participation in the Washington Lodging Association.
- Use of case studies to demonstrate value of energy efficiency to this market.

Commercial Kitchens

To promote commercial kitchen rebates to restaurants and other owners/managers of commercial kitchens (school cafeterias, corporate cafeterias, church kitchens, etc.), marketing activities will include:

- Update of marketing materials to incorporate myPSE brand plus any program changes required.
- Participation in various restaurant and food service organizations such as the Washington Restaurants Association.
- Utilization of case studies to demonstrate value of energy efficiency in restaurants and other food service facilities.
- Development and disbursement of Point of Sale (POS) display materials for participating instant rebate vendors.

Commercial Lighting

Promotion will continue for Commercial Lighting Rebate offers, with emphasis on point of sale and prescriptive lighting incentives which expedite customer participation in lighting incentive programs.





Promotional efforts will include:

- Development and continued disbursement of point of sale display materials for participating instant rebate vendors.
- Development of marketing collateral that provides increased awareness of new "Business Express" lighting rebate program incentives.
- Continued expansion of Contractor Alliance Network (CAN) into the commercial lighting sector of trade allies.
- Leveraging of the Northwest Trade Ally Network for promotion of lighting efficiency offerings.

Small Business Outreach – Direct Installations

This program is provided by an outside contractor serving small business customers throughout the PSE service area. This contractor will coordinate marketing and outreach efforts with multiple PSE channels including Energy Efficient Communities, Business Services, and Customer & Community Engagement.

In addition to sector-specific focused marketing efforts, the following strategies will be implemented to create greater program awareness by customers and trade allies across all market sectors.

Coordination with Trade Allies

PSE's Commercial Rebates Program will strengthen relationships with Trade Allies by:

- Offering contractor information and training sessions.
- Supporting contractors and vendors with program information.
- Participation in meetings to update trade allies on program offerings.
- Coordination with trade allies on PSE energy efficiency program messaging.
- Expansion of Contractor Alliance Network (CAN) into the C/I sector of trade allies.

Coordination with PSE Staff and Departments

Routine communications with internal PSE channels responsible for direct communication with customers and others who influence decisions about energy efficiency, such as public officials, will yield greater program awareness.





These communications will include:

- Proactive coordination with Energy Efficient Communities staff.
- Regular meetings and communications with Business Services staff, including Major Accounts Executives and Business Accounts Managers.
- Routine updates to PSE Energy Advisors about programs.
- Collaboration with PSE media outreach and social media teams to publicize significant projects and program offerings.

Outreach Plan

Energy Efficient Communities staff will develop and implement outreach strategies to promote program offerings by leveraging EEC and other regional teams' understanding of local communities to identify project opportunities and increase awareness of program offerings with the larger public. Strategies may include the following:

- Presentations to Chambers of Commerce, Visitors and Convention Bureaus, restaurant and hospitality associations and other trade associations to publicize program offerings
- Identify business customers whose energy efficiency achievements illustrate results of PSE program participation and highlight their successes at events, in case studies and through media outreach to increase awareness of program offerings.
- Organize small-scale events at location of employers to educate employees on efficiency actions taken at the site by the employer and additional energy savings opportunities, including opportunities at both work and home.
- Host sessions internally for PSE staff to increase employee awareness of programs, providing increased communication to customers regarding energy efficiency programs.
- Participate in identifying communities for targeted Small Business Direct Install door-to-door initiatives.
- Plan and execute local community-level events providing recognition to businesses for, and promoting the awareness of, energy efficiency program opportunities.
- Host events at local PSE offices that increase customer awareness of program offerings, provide training and outreach to trade allies, including recognition of contractor energy efficiency accomplishments in the local community and encouragement of greater participation in the Contractor Alliance Network.





REGIONAL PROGRAMS





Northwest Energy Efficiency Alliance

Schedule E254

Description

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

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

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





Generation, Transmission and Distribution Efficiency

Schedule E292

Purpose

The purpose of the Generation, Transmission and Distribution Efficiency program is to evaluate and implement energy conservation Measures within PSE's own generation and distribution facilities.

Description

The Generation, Transmission and Distribution Efficiency program involves implementing energy conservation Measures within PSE's own generation and distribution facilities that prove cost-effective, reliable and feasible.

Within generation facilities, conservation Measures reduce ancillary loads at the site and exclude efficiency improvements made to the generating equipment itself. These Measures may include, but are not limited to, lighting upgrades, variable speed drives and compressor upgrades.

For transmission and distribution (T&D) efficiency, improvements are implemented at PSE's electric substations. These improvements can involve reducing the energy use within the substation itself and the distribution of energy from it. They can range from on-site Measures like lighting and heat pumps to system Measures like phase balancing and conservation voltage reduction (CVR) (also referred to as voltage optimization (VO)).

This program requires coordination between the Energy Efficiency Program Manager and Staff in other PSE departments to collect project specific details for program tracking and reporting.





PORTFOLIO SUPPORT



Customer Engagement and Education

Purpose

This activity grouping is made up of functions and services designed to drive PSE customer to take action, and engage in energy efficiency initiatives. This group provides customers with information, tools and resources that enable easy enrollment in a number of PSE efficiency offerings. The services address the full spectrum of Energy Efficiency's benefits, and the Customer Engagement and Education Staff often provide the customer's first impression of the Energy Efficiency department.

Energy Advisors

The Energy Advisor Department is a unique, customer solution operation within Energy Efficiency. The scope of this expert group brings efficiency into PSE's customer homes by guiding them in changing behaviors. Energy Advisors promote and explain PSE's renewable programs as well as provide energy advice covering Electric Vehicles, tax incentives, community challenges and building science, for instance.

Unlike transaction-based customer care departments, the Energy Advisors provide expertise and deliver solutions tailor-made for customers' homes. They work with unique business requirements to meet program goals and targets, and are positioned to provide a robust level of program and services support. The Energy Advisors perform research, analyze, resolve, and respond to customer inquiries, issues and requests related to energy efficiency and conservation. They represent PSE in an effort to promote and cross-market energy-efficiency products and services by presenting and providing educational materials to employees, organizations and community groups.

Energy Advisors receive training and instruction in departmental procedures. They are expected to use good judgment in independently responding to recurring customer issues and/or complaints. Unique, difficult or unusual customer service issues are referred to the Senior Energy Advisor. They consult with customers to help lower bills and educate them regarding energy efficiency and conservation as well as promote PSE energy efficiency and conservation programs. This is accomplished through unique outreach methods, including outbound calls for selected energy-efficiency programs, and services at community and corporate outreach events.





Individual Energy Advisors are also located in several PSE Business Offices throughout PSE's service territory to provide direct support for energy-efficiency questions.

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

Events

The Energy Efficiency department participates in community, local, and regional events annually. These events include home shows, trade shows, seminars, corporate events and community outreach. The event audience consists of general public, businesses, builder/contractors, multifamily property owners, city leaders, students/teachers. PSE business objectives include; energy-efficiency program leads, customer awareness of PSE's programs and services, education, establishing partnerships with other utilities and communities, among others. This provides unique opportunities for Energy Efficiency Staff to interact directly with customers and discuss a variety of products, programs and services that the department offers. Energy Efficiency Staff can also match customer interests and needs with Energy Efficiency programs.

The event strategy team provides specific criteria for event participation that matches overall business and strategy of the programs supporting Energy Efficiency programs with emphasis on presence, affiliation and relevance. Each event holds a particular value to stakeholders and relates to objectives of PSE Energy Efficiency programs. The Events team organizes events using an event management data system to improve communication and customer experience. The Events strategy team—including representatives from marketing, outreach and programs—assesses event requests, and reviews event opportunities in advance, with a focus on tactical planning for and vetting events.

Energy Efficiency Brochures

PSE provides brochures and how-to guides on numerous energy efficiency opportunities, including low-cost equipment, weatherization measures, major weatherization improvements, and equipment upgrades. This information includes investment and savings estimates where appropriate. The brochures provided as part of this program are general energy efficiency in nature, whereas program-specific (for example, residential heat pumps or mobile home duct sealing), are budgeted within those specific programs. These brochures are available to customers in paper form and online at the PSE website. Where required by tariff, brochures are included as bill inserts.





Education

Schedules E202, G202

The Energy Efficiency Education program provides opportunities to broaden knowledge of conservation and renewable energy, and increase participation in efficiency programs.

PSE's energy education provides a forum for positive customer and community interaction and involvement that will inform, inspire, and empower with the understanding that individual choices do make a difference.

Description

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

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

Target Market

Markets include PSE employees, small businesses, low-income populations, seniors, Native American groups, English-as-a-second-language customers and the general public through community outreach.

The program fosters community involvement that will create mutual gains by leveraging with existing education learning resources through Low Income Weatherization agencies and Independent Colleges of Washington (ICW).





Education Tactics

- Continue long standing relationship with Independent Colleges of Washington where students engage in energy efficiency research projects related to improvement in power and energy use.
- Streamline the EE Speakers Bureau, providing a library of consistent energyefficiency materials and messaging for PSE Staff to use as advocates for the company, in the community.



Customer Online Experience

Purpose

The Customer Online Experience group implements functions and activities that focus on PSE customer access to Energy Efficiency programs, either via the internet or other forms of electronic media.

Description

This Customer Online Experience team is made up of Web Experience and Market Integration, which are detailed in the following paragraphs.

Web Experience

Purpose

PSE's customers expect to receive information and interact with PSE online in the same sophisticated ways they do with other companies. Web Experience is designed to support the development and maintenance of tools that simplify the energy-efficiency educational process, providing interactive, engaging experiences that drive PSE's customers to mange and lower their energy usage.

Description

Web Experience and Market Integration are designed to significantly improve Energy Efficiency's ability to communicate the "how and why" of energy efficiency, using new technologies and engaging interactive methods.

Web Experience consists of the initiative to make PSE's energy-efficiency web tools effective in delivering electricity and gas savings. Research has shown that PSE customers are more web-savvy than average and have high expectations when doing business on the web.

In 2014, PSE will implement upgraded personalized energy-efficiency analysis tools available to customers within the myPSE Account section of PSE.com—for desktop, table, mobile web users—and via PSE's new mobile app (Android and iOS).





These enhanced tools will better help customers understand the specifics behind their energy usage, show neighbor comparisons (residential customers),⁵ notify customers of higher than usual usage, and provide new ways to encourage efficient behaviors, by suggesting personalized tips, tools, ideas and checklists, based on a customer's automated energy usage profile and self-assessment information.

The Customer Online Experience budget will also support implementation of the tools outlined above, interactive content development, e-newsletters and the fees for other miscellaneous software applications, such as online form, database and web hosting services.

Marketing Integration

Purpose

Market Integration consists of salary costs of employees working on energy-efficiency marketing platform development and maintenance. This is designed to increase the transparency of the work done on energy-efficiency marketing-related items. This includes the enhancement of online energy-efficiency tools and features, as well as traditional marketing executions that center on promotional channels used across all programs (that is, events, collateral and websites).

⁵ Specific customer details; addresses, names, account information, etc. is rigorously protected. Instead, only general, non-specific comparisons will be provided.



Automated Benchmarking System

Launched in the autumn of 2013, this new website, called *MyData*, will provide building owners an easy to use, self-service portal that will allow them to set up automated monthly reporting of their building's energy usage. This data can be used to:

- Track energy usage for a portfolio of buildings,
- Track the results of energy efficiency projects,
- Develop Energy Star ratings, and
- Comply with city of Seattle reporting requirements.

Approximately 75 percent of the whole-building energy usage requests PSE receives come from building owners (or their contractors) that are tracking their energy usage or are tracking the results of energy efficiency projects.





Energy Efficient Communities

Purpose

A program-support Channel to deliver Energy Efficiency program information direct to residential and commercial customers and through partnerships with community organizations and municipalities. The program works to leverage community resources to connect with, educate and move customers to Energy Efficiency program participation.

Description

Puget Sound Energy's Energy Efficient Communities (EEC) program works to generate participation in PSE's Energy Efficiency programs through direct-to-customer outreach and through partnerships. The team works to discover locally-appropriate ways of engaging with customers by leveraging PSE's resources, community knowledge and partner support.

The EEC team works closely with the Energy Efficiency programs to determine whether a broader partnership with a community organization or a more targeted, direct-tocustomer approach is needed. As an outreach team for both residential and commercial programs, the EEC team also works on cross-program promotion, where appropriate.

Target Markets

PSE's Energy Efficient Communities Program has staff located in regional offices to provide an improved connection to the multiple community stakeholders that Energy Efficiency serves throughout the service area. These partnerships provide opportunities to connect directly and indirectly with the residential and commercial markets.

Energy Efficient Communities works closely with the Business Energy Management team to reach out to the underserved small business population to deliver consistent programs throughout the service area. The team works to provide leads for the small business programs through partnerships with cities and community groups as well as through direct outreach and presentations to the small business community.

The EEC team works to train other PSE employees on the Energy Efficiency programs to ensure they are incorporating the information into their work with customers. These opportunities leverage other PSE work that is occurring with customers, and therefore improves the customer experience and increases program participation.





Trade Ally Support

Purpose

Trade Ally Support manages PSE membership costs in Energy Efficiency (EE) trade associations. These organizations stand apart from other trade association memberships in that they provide comparatively broad-based EE research, training and/or implementation support services.

Trade Ally Support organizations provide education, information and related services for:

- The adoption or expansion of energy-efficiency products, services, and practices; and
- Conducting research toward the development of new, or improved validation or delivery of existing conservation measures, programs and services.

Description

The Trade Ally Support line item budgets and tracks only annual membership dues PSE pays to broad-based industry trade and research organizations who perform and support ongoing development and implementation of Residential and Business Energy Management programs. PSE participates in and utilizes the services of many such organizations to support delivery, management, and promotion of energy efficiency services. Utility, customer, and service provider benefits primarily include education and information exchange on end-use technologies, energy legislation, efficiency services, and related industry trends. Other Trade Ally expenses not related to dues, for example conference attendance, are budgeted and tracked with the pertinent efficiency program(s) receiving the benefit.

Target Market

Organization memberships budgeted in Trade Ally Support this biennium include (but may not be limited to):

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





RESEARCH & COMPLIANCE





Conservation Supply Curves

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

PSE's next IRP and Conservation Potential Assessment are due in 2015. The Company will conduct an assessment of the long-term market potential for energy savings from energy efficiency and other demand-side resources, covering the twenty year period 2014-2033. PSE anticipates continued use of a consultant to perform the analysis. The budget includes costs to collect customer, building and end use equipment characteristics data for this analysis, as well as calculation of the conservation potential itself. This analysis will be a key component for establishing program savings targets for 2014-2015.

Strategic Planning

Objectives

The Strategic Planning function conducts a variety of research studies and analyses to support regulatory compliance proceedings and other strategic initiatives.

Description

The Strategic Planning function is responsible for providing support and guidance to a variety of regulatory and other strategic initiatives. Responsibilities include regulatory compliance filings, federal and state legislative review, policy analysis, or other strategic efforts related to energy efficiency. The Strategic Planning function also includes support for the regional Commercial Building Stock Assessment study that will be completed in the 2014-15 biennium. Funding is for oversampling of PSE buildings to build a more robust database for PSE's service area.





Market Research

It is important to note that this function's description was relocated to the Research & Compliance section of this document, as well as Exhibit 1: Budgets and Savings for the 2014-2015 biennium. This was sensible, as Market Research provides little in the way of customer-facing information. As the primary activity of the team is research, the need to re-classify the activity into this group became obvious.

Objectives

Market Research conducts a variety of research studies and analyses to support program design, marketing strategies, and development of effective program promotion and customer communications for energy efficiency.

Description

The focus of the Market Research function is on acquiring information about customers that is relevant for the development of energy-efficiency programs, educational materials, and promotional campaigns that will be effective in encouraging program participation.

Through various techniques such as surveys, focus groups, and analysis of existing databases, Market Research provides understanding of customer perceptions, motivations and barriers to adoption of energy-efficient applications and behavior, as well as tracking customer awareness of program offerings and satisfaction with non-program specific education and information services. Market Research is also called upon for analysis of localized characteristics, attitudes, behavior, and energy usage trends, necessitating more geographically targeted research. Market Research expenses are driven by the customized nature of the work and the large sample sizes required in quantitative studies for results to be valid for multiple market segments and geographic areas.

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





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

<u>Baseline Research with Broad Applications</u>: This type of research provides foundational information about PSE customers that will be a common source of knowledge for the general planning and design of all energy efficiency programs and promotional campaigns.

<u>Application-Specific Research</u>: This research is focused on specific programs or promotional initiatives. It includes research that supports specific energy efficiency program promotion and communications campaigns, such as message testing, target markets, and campaign effectiveness studies. Other research efforts will be focused on tracking customer satisfaction with information services, such as the Energy Advisors. Finally, research may be conducted to provide customer input on the design and implementation of specific programs, primarily using qualitative methods such as focus groups.

In the 2014-15 biennium, market research will make greater use of online research tools and secondary data sources, which will help control costs. In particular, PSE will utilize an online residential research panel of approximately 3,000 customers as a very economical survey tool, as well as purchasing existing demographic and firmographic data from third-party providers, rather than conducting original research to collect this information.





Program Evaluation

Description

PSE Evaluation Staff are committed to the evaluation of energy savings and the continual improvement of energy efficiency service delivery to customers. PSE program implementation teams work together with the Evaluation team to inform the development of evaluation scopes of work. The Evaluation Team then develops and maintains a strategic evaluation plan, in accordance with the guiding Evaluation Framework, ensuring that all programs receive review on a four-year cyclic basis. PSE also considers the level of energy savings, significant program changes and whether a program is new or never been evaluated before in prioritizing programs for evaluation. Adjustments to the evaluation plan may be made during the biennium, with CRAG review and advice.

Residential Programs to be evaluated in 2014-2015 include:

- Single Family Lighting
- HomePrint
- Web-enabled thermostats
- Showerheads
- Home Energy Reports:
- Multifamily Existing
- Multifamily Air Seal
- Fuel Conversion

Commercial/Industrial Programs to be evaluated in 2014-2015 include:

- Commercial/Industrial Retrofit
- Large Power User, Self-Directed
- Pilot: Small Business Behavior
- Technical Evaluation: Remote Energy Audit

The Distribution and Generation Efficiency Program will also be evaluated.

For additional information on planned evaluation activity, please refer to the Evaluation Plan (Exhibit 6 of the 2014-2015 Biennial Conservation Plan).





In addition, significant work will be done in 2014 on the independent third party review of PSE's 2012-13 electric portfolio, which must be completed by mid-2014 in compliance with condition (6)(g).

The Evaluation Team investigates the cost effectiveness of all Energy Efficiency programs. Avoided costs are developed consistent with PSE's most recent Integrated Resource Plan. Utility Cost and Total Resource Cost benefit-to-cost ratios are the two cost-effectiveness tests calculated and are performed at the program level and measure level as appropriate. More information on the evaluation approach is available in the EM&V Framework section (Exhibit 8).

The Evaluation Staff is also closely engaged in the Measure Metrics process. Using the Evaluation Report Response (ERR), the Implementation and Evaluation Teams ensure that study results are implemented in the program. When an evaluation study is completed, findings are reviewed along with key recommendations. The Implementation Team then completes their input to the ERR, indicating what actions will be taken as a result of the evaluation findings. This ensures a closed-loop system with Evaluation findings and Implementation reactions and adjustments being documented in the Measure Metrics database.

PSE frequently shares the results of its evaluations with the RTF to ensure continuous improvement of measure energy savings values that are widely used in the region. In addition, PSE monitors the Regional Technical Forum (RTF), NEEA, and the Northwest Research Group (NWRG), as well as directly reaching out to neighboring utilities, for opportunities to collaborate on common evaluation needs.





Verification Team

Description

As the "V" in EM&V, PSE's Verification Team performs on-site inspections and confirmations of randomly-selected participating homes and businesses to assure energy efficiency measures are properly installed. Combined with other Evaluation and Measurement functions, the Verification Team seeks to secure both confidence in claimed energy savings and improvements in program quality.

The "Measurement & Verification: Policies, Guidelines, Protocols & Processes" document introduces M&V protocols to be used across the Energy Efficiency functions.

Measurement & Verification (M&V)

M&V is the process of determining and validating savings, where equipment energy usage may be measured and equipment installations verified. Energy Efficiency M&V policies include:

- Every Energy Efficiency measure and/or program has objective and documented analysis describing kWh and/or therm savings (ref. PSE Measure Metrics database). The Verification Team provides on-site independent checks of measure installations for measures and/or programs.
- Energy Efficiency program planning, implementation, verification and evaluation teams are engaged in on-going quality assurance, quality control, analysis and reporting of measure/program activities.
- All methods are documented and subject to review to increase quality and reliability.





Verification Team Guidelines

PSE created the "Measurement & Verification: Policies, Guidelines, Protocols & Processes" document in response to Condition (6)(f)(ii):

"Measurement & Verification – PSE shall provide detailed descriptions of its measurement & verification (M&V) policies, protocols, guidelines, and processes to the CRAG [Conservation Resources Advisory Group] for review and advice. Additionally, PSE shall provide to the CRAG an estimate of the costs associated with the detailed M&V plan and PSE will maintain activities at levels that are at least commensurate with regional peers."⁶

The document provides detailed descriptions of PSE M&V policies, protocols, guidelines and processes.

<u>Verification of energy efficiency installations</u>: This is conducted in multiple venues through review of documentation, surveys and on-site inspections. To ensure the accuracy of program and measure savings claims, verification activities encompass many different steps, including invoice and calculation reviews, on-site inspections and phone verifications among others.

<u>Verification of energy savings</u>: Energy Efficiency programs have documented procedures in place to fully verify measure savings. Verification procedures described in the Verification Manual vary depending on measure, participant, or program type. Practices documented in the Verification Manual detail expectations for all stakeholders including Program Implementation Staff, program participants and installation contractors. The processes most reflective of day to day functions of the Verification Team are the pre and post-installation inspections described in the Manual.

⁶ Agreed Conditions for Approval of Puget Sound Energy, Inc.'s 2010-2011 Biennial Electric Conservation Targets under RCW 19.285, Docket No. UE-100177.





Program Development

Description

This function includes research, planning, development, and support work for Residential and Business Energy Management customer programs.

In addition to mainstream Energy Management work, new customer load control development interests—previously reflected in Commercial/Industrial Load Control (Schedule E 271)—is included in the 2014-2015 Program Development budget.

The Program Development budget includes predominantly labor and related planning and development costs projected by New Program Development staff.

Functions include internal and external research, planning, development, and integration of: state and federal regulatory guidance; end-use technologies and applications; prepilot program proposals; energy codes; equipment standards; trade association information, research, and training; software; and other tools applications.

Related examples include: biennial and strategic program planning support; participation in regional initiatives and organizations including NEEA, RTF, NPCC, BPA, and NWRG; assessment, documentation, development and implementation of Measurement & Verification and quality assurance/quality control protocols and methodologies; developing and managing IRP and related DSR bidding activities; and managing program benchmarking studies, best practices, and continuous improvement.



OTHER ELECTRIC PROGRAMS





Net Metering

Schedule E150

Purpose

PSE's Net Metering program provides interconnection services for qualifying customergenerators in accordance with State legislation enacted into law in February 11, 1999 and amended June 8, 2000 (see RCW 80.60).

Description

PSE provides interconnection services to qualifying Customer-generators who operate fuel cells, hydroelectric, solar, wind, or biogas generators of no more than 100 kW. Service under this schedule is limited to a total of 11.2 MW of cumulative nameplate generating capacity, of which no less than 5.6 MW of cumulative nameplate generating capacity shall be attributable to renewable energy net metering systems that use as a fuel either solar, wind, hydroelectric power, or biogas from animal waste. On January 1, 2014, this cap will move to 22.4 MW. Customer generation can be used to offset part or all of the Customer-generator's electricity use under Schedules 7 through 49 of Electric Tariff G.

At the time a customer enrolls in the Net Metering program, they are also provided the necessary information to receive annual benefits from the Production Metering, or Renewable Energy Advantage Program (REAP), which is the state's performance based incentive described in Schedule 151.

Target Market

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

Customer Incentives

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




Production Metering

Schedule 151

Purpose

PSE's Renewable Energy Advantage Program provides qualifying Customer-generators with production payments in accordance with State legislation SB 6658 as PSE receives tax credits for renewable production payments, as outlined in RCW 82.16.

Description

Production Metering is operated in conjunction with, and in addition to, the Net Metering program. At the time a customer enrolls in the Net Metering program, they are also provided the necessary information to receive annual benefits from Production Metering when enrolling with a qualifying renewable energy technology.

Target Market

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

Customer Incentives

Once a year customers are paid for all power generated up to the \$5,000.00 cap per the State's Renewable Energy Cost Recovery Program. This payment ranges from \$0.12 to \$1.08 per kWh generated per state law. PSE currently identifies the annual production total and provides the annual application and payment to the customer.

Marketing Plan

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

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





Commercial/Industrial Load Control

Schedule E271

Background

Due to current low market prices, and C/I Load Control program prices that are higher than supply side capacity resources, PSE is deferring development and implementation of a conventional Demand Response program at the outset of the 2014 - 2015 biennium.

Next Steps

However, during this biennium, PSE will continue research, planning, and development of pertinent customer load/capacity management interests as described in Program Development, pg 99. For example, PSE may consider 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 energy resource stakeholders. The Program Development budget will track and report all research and development planning costs incurred by New Program Development staff.





GLOSSARY OF COMMONLY USED ACRONYMS AND TERMS

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

AIA	American Institute of Architect	
ASHRAE	American Society of Heating, Refrigerating, and Air- Conditioning Engineers	
BOMA	Building Owners and Managers Association	
BPA	Bonneville Power Administration	
СНР	Combined Heat & Power	
CMS	Customer Management System	
Cost Element	Also referred to as account numbers. Cost element groups typically include; labor, overhead, employee expenses, miscellaneous expenses, materials, etc.	
CRAG	Conservation Resource Advisory Group	
CS/EE	Customer Solutions/Energy Efficiency. This was the new name assigned to EES (Energy Efficiency Services) at the beginning of 2012.	
DDC	Design Development and Construction	
DHW	Domestic Hot Water	
Direct Install Measure	A conservation Measure that is installed by a PSE representative—rather than a PSE customer—into a qualifying structure.	
ECM	Electronically Commutated Motor	



Definitions and Acronyms, continued

HID	High Intensity Discharge (related to lighting)		
HVAC	Heating, Ventilation and Air Conditioning		
IRP	Integrated Resource Plan. PSE's two-year view of 20-year resource needs and how the Company will meet those needs.		
kWh	Kilowatt Hour		
MBA	Master Builders' Association		
NEMA	National Electrical Manufacturers Association		
O&M	Operations and Maintenance		
Order Number	An eight-digit accounting number, used to track expenditures. FERC rules require that expenditures associated with energy conservation begin with a 1823nnnn (where "n" is another number). This is the most detailed view of accounting for a program's expenditures. Within an order number, cost elements account for the specifics of those expenditures, as explained above.		
TRC	Total Resource Cost		
UC	Utility Cost		
ULI	Urban Land Institute		
USGBC	U.S. Green Building Council		
WAMOA	Washington Association of Maintenance and Operations Administrators		







Table of Contents

GENERAL GUIDELINES FOR MEASURES, INCENTIVES AND ELIGIBILITY	1
INFORMATION-ORIENTED SERVICES	3
Energy Advisors	3
Events	3
Energy Efficiency Brochures/Collateral	3
Energy Education	4
On-Line Tools & Customer Management System	4
Electronic Newsletters	4
RESIDENTIAL MEASURES, INCENTIVES AND ELIGIBILITY	5
RESIDENTIAL LOW INCOME WEATHERIZATION	5
Eligibility	5
Funding Categories	5
Incentives	6
Offerings Unique to Structure Type	8
Offerings Unique to Structure Type	9
SINGLE FAMILY EXISTING	11
Eligibility	11
Incentives	12
	16
Eligibility	16
Incentives	17
	18
Eligibility	18
	19
MULTIFAMILY EXISTING	21
Eligipility	21
Incentives	22
BUSINESS MEASURES, INCENTIVES AND ELIGIBILITY	26
BUSINESS ENERGY REPORTS	26
Eligibility	26
	27
Eligibility	27
Measures and Incentives	27
ENERGY SMART GROCER (ESG)	31
Eligibility	31
Measures	31
	31
	32
EllyDilly	32 22
IVIEdSUIES	32 22
111661111765	32



	NDUSTRIAL SYSTEM OPTIMIZATION	33
	Eligibility	.33
	Measures	33
	Incentives	33
(COMMERCIAL AND INDUSTRIAL NEW CONSTRUCTION	35
	Eligibility	35
	Incentives	35
l	Resource Conservation Management Incentives	38
	Eligibility	.38
	General Description of Program Offerings	38
	RCM Direct Customer Incentive Descriptions	41
	RCM Value Added Service Descriptions	42
	Strategic Resource Management (SRM)	44
(COMMERCIAL AND INDUSTRIAL LARGE POWER USER SELF-DIRECTED	45
	Eligibility	45
	Incentives	45
(COMMERCIAL AND INDUSTRIAL INCENTIVES	47
	Eligibility	47
	Incentives	47
RE	GIONAL EFFICIENCY PROGRAMS	59
re I	GIONAL EFFICIENCY PROGRAMS	59 59
RE I O1	GIONAL EFFICIENCY PROGRAMS Northwest Energy Efficiency Alliance (NEEA)	59 59 61
RE 	EGIONAL EFFICIENCY PROGRAMS Northwest Energy Efficiency Alliance (NEEA) THER ELECTRIC PROGRAMS	59 59 61
RE ا 01	GIONAL EFFICIENCY PROGRAMS NORTHWEST ENERGY EFFICIENCY ALLIANCE (NEEA) THER ELECTRIC PROGRAMS RENEWABLE ENERGY EDUCATION	59 61 61
RE 01	EGIONAL EFFICIENCY PROGRAMS. NORTHWEST ENERGY EFFICIENCY ALLIANCE (NEEA) THER ELECTRIC PROGRAMS RENEWABLE ENERGY EDUCATION Eligibility Renewables Concreting Crents	59 61 61 61
RE 1 01	EGIONAL EFFICIENCY PROGRAMS. NORTHWEST ENERGY EFFICIENCY ALLIANCE (NEEA) THER ELECTRIC PROGRAMS RENEWABLE ENERGY EDUCATION Eligibility Renewables Generating Grants	59 61 61 61 61
ן 1 01 1	GIONAL EFFICIENCY PROGRAMS. NORTHWEST ENERGY EFFICIENCY ALLIANCE (NEEA) THER ELECTRIC PROGRAMS RENEWABLE ENERGY EDUCATION Eligibility Renewables Generating Grants NET METERING.	59 61 61 61 61 62 62
RE ו סיו	EGIONAL EFFICIENCY PROGRAMS. NORTHWEST ENERGY EFFICIENCY ALLIANCE (NEEA) THER ELECTRIC PROGRAMS RENEWABLE ENERGY EDUCATION Eligibility Renewables Generating Grants NET METERING Eligibility Eligibility	59 61 61 61 61 62 62 62
RE 	EGIONAL EFFICIENCY PROGRAMS. NORTHWEST ENERGY EFFICIENCY ALLIANCE (NEEA) THER ELECTRIC PROGRAMS RENEWABLE ENERGY EDUCATION Eligibility Renewables Generating Grants NET METERING. Eligibility RENEWABLE ENERGY ADVANTAGE PROGRAM Eligibility.	59 61 61 61 61 62 62 63 63
RE 	EGIONAL EFFICIENCY PROGRAMS. NORTHWEST ENERGY EFFICIENCY ALLIANCE (NEEA). THER ELECTRIC PROGRAMS RENEWABLE ENERGY EDUCATION. Eligibility. Renewables Generating Grants	59 61 61 61 61 62 63 63 63
RE 	EGIONAL EFFICIENCY PROGRAMS. NORTHWEST ENERGY EFFICIENCY ALLIANCE (NEEA). THER ELECTRIC PROGRAMS RENEWABLE ENERGY EDUCATION. Eligibility. Renewables Generating Grants . NET METERING. Eligibility. RENEWABLE ENERGY ADVANTAGE PROGRAM Eligibility. Annual Payments .	59 61 61 61 61 62 62 63 63 63
RE 	EGIONAL EFFICIENCY PROGRAMS. NORTHWEST ENERGY EFFICIENCY ALLIANCE (NEEA). THER ELECTRIC PROGRAMS RENEWABLE ENERGY EDUCATION. Eligibility. Renewables Generating Grants NET METERING. Eligibility. Renewable ENERGY ADVANTAGE PROGRAM Eligibility. Annual Payments EASURE LIFE CALCULATIONS	 59 61 61 61 62 62 63 63 63 65
RE 	EGIONAL EFFICIENCY PROGRAMS. NORTHWEST ENERGY EFFICIENCY ALLIANCE (NEEA). THER ELECTRIC PROGRAMS RENEWABLE ENERGY EDUCATION. Eligibility. Renewables Generating Grants . NET METERING. Eligibility. RENEWABLE ENERGY ADVANTAGE PROGRAM Eligibility. Annual Payments EASURE LIFE CALCULATIONS.	 59 61 61 61 62 62 63 63 63 65
RE I OT I I MI	EGIONAL EFFICIENCY PROGRAMS. NORTHWEST ENERGY EFFICIENCY ALLIANCE (NEEA). THER ELECTRIC PROGRAMS RENEWABLE ENERGY EDUCATION. Eligibility. Renewables Generating Grants. NET METERING. Eligibility. RENEWABLE ENERGY ADVANTAGE PROGRAM Eligibility. Annual Payments	 59 59 61 61 61 62 63 63 63 63 65 67
	EGIONAL EFFICIENCY PROGRAMS. NORTHWEST ENERGY EFFICIENCY ALLIANCE (NEEA)	 59 59 61 61 61 62 62 63 63 63 65 67 68
	EGIONAL EFFICIENCY PROGRAMS	 59 59 61 61 61 62 62 63 63 65 67 68 74





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GENERAL GUIDELINES FOR MEASURES, INCENTIVES AND ELIGIBILITY

- 1. Definitions and terms used throughout this document are governed by the Company's Electric Tariff G and Natural Gas Tariff. Where there is a conflict, the Tariff definition shall prevail.
- 2. Specific terms and conditions are found on the applicable incentive forms, grant documents, rebate application forms and similar documents available from the Company. Some measures noted in this document apply only to a particular customer type or structure type. Some structure types do not have individual measure/incentives available; rather, an incentive may be applied to the entire qualifying structure. <u>Please thoroughly read the incentive terms and conditions before investing in an energy efficiency measure.</u>
- 3. Some incentive payments noted in this document may be divided in a manner consistent with the Company's program objectives. In some cases, this division may be between the qualifying party or parties receiving the measure. For example, an installing contractor may receive a portion of an indicated incentive amount, with the end-use customer receiving the balance of the indicated amount. Qualifying parties may include, but are not limited to, manufacturers, retailers, distributors, owners of structures, customers, general contractors, verifiers, approved Washington State Agencies or similar entities.
- 4. The term <u>Maximum Amount</u>, noted in some programs, represents the total amount of funding available per indicated measure, household, dwelling unit, eligible party or parties or structure. Incentive amounts may vary, depending on market conditions, funding availability, energy efficiency level of the installed product(s) or measure, eligibility of the party installing the measure or other similar conditions.
- 5. At the Company's discretion, and based on changing market conditions, costeffectiveness and program objectives, incentive amounts may vary from the indicated Maximum Incentive Amount from time to time. The Company may implement limited-time offers, special performance incentives for field forces (sometimes referred to as SPIFFs or SPIFs), temporary promotions, purchasing of products directly to provide to retailers for resale, or other adjustments to incentives. These adjustments will continue to be based on regionally accepted energy savings estimates and incremental efficiency measure costs. These adjustments may be noted on the PSE.com website, press releases, advertisements, or other media. It is always a good idea to consult an energy advisor at 1 800 562-1482 if you have questions.



6. The Company's energy advisors are available to answer specific questions, Monday through Friday, 8am to 5pm. Many rebate forms and additional program information are also available via the Company's website:

> http://pse.com/savingsandenergycenter/GetReEnergized/Pages/Ask-an-Energy-Advisor.aspx

7. Many of the indicated measures require the services of or installation by a professional contactor. Before engaging an independent contractor, it is important to understand the terms and conditions of the measures for which you may apply and ensure that the contractor meets the Company's qualifying standards.

Generally, contractor qualifications include, but are not limited to:

- Licensed, bonded and insured in the State of Washington.
- Willing to comply with training and inspection by the Company.
- 8. Some of the indicated measures have very specific requirements that must be satisfied in order to qualify for the indicated incentive. These include, but are not limited to: structural measures (insulation, windows, etc.), HVAC applications (heat pumps, air handlers, etc.), plumbing fixtures (water heaters, boilers, etc.) and so on. Qualifications listed in this document as a part of the measure description are of a general nature only, and are indented to provide an overview for the customer. Additional information is available on PSE.com, via an energy advisor (1-800-562-1482) and is provided in the incentive application form.

Prior to committing to a potentially large investment, (a heat pump, water heater, windows, insulation, etc.) it is recommended that customers visit PSE.com or call an energy advisor to obtain the complete list of qualifications for the measure being considered.

- 9. Customers, eligible parties, owners or tenants with applicable owner permission assume all liabilities associated with contracting, work performance, ensuring applicable permits are obtained and paying independent contractors. The Company may provide contractor referral services for applicable measures.
- 10. General terms and requirements for incentive qualification include, but are not limited to:
 - Purchase receipt or invoice, indicating the date of purchase,
 - Address (the physical location) of where the measure is being installed,
 - Name of person(s) claiming the incentive,
 - The structure must be receiving (or will be receiving in the case of new construction) electric service or bundled natural gas service from the Company.





INFORMATION-ORIENTED SERVICES

The following services apply in most cases to both Residential and Business customers. Although specific rebates or financial incentives aren't elements of the following services, these services provide energy management tools and access to programs outlined in this CS List of Measures, Incentives and Eligibility. This brief description provides an overview of the information-oriented resources available to customers.

Customer Solutions (CS) offers several different communications avenues that complement each other to provide information about customer programs and efficiency improvements tailored to customers' interests and energy-use concerns.

Energy Advisors

Energy Advisors research, analyze, resolve and respond to customer inquiries, issues and requests related to energy efficiency and conservation; and promote and explain energy efficiency and renewable programs and their advantages. They represent the Company in an effort to promote and cross market products and services by presenting and providing educational materials to employees, organizations and community groups. Employees work in a team environment and must be able to rapidly adapt to changes in services and programs. Employees receive training and instruction in departmental procedures and are expected to use good judgment in independently responding to recurring customer issues and/or complaints. Unique, difficult or unusual customer service issues are referred to the Senior Energy Advisor. Through a toll-free number, 1-800-562-1482, Monday through Friday, 8am to 5pm, customers have access to speak directly to an Energy Advisor.

Events

PSE participates in trade shows, community events and homeowner/trade ally associations' venues that provide avenues, such as seminars and workshops, to attract PSE residential and business customers to the features/benefits of energy efficiency programs.

Energy Efficiency Brochures/Collateral

PSE provides brochures and how-to guides on various energy efficiency opportunities, including behavioral measures, low-cost equipment, weatherization measures and improvements and equipment upgrades. This information includes guidelines and savings estimates where appropriate. PSE brochures are available to customers in paper form and online at the PSE Web site. Brochures are also distributed at numerous customer events, Home shows and trade shows throughout the year.





Energy Education

Education is a key component in furthering consumer energy efficiency and renewable energy awareness so customers are adequately informed to make wise energy decisions. Education programs broaden customer knowledge of conservation and renewable energy, and increases participation in efficiency programs. PSE's energy education programs inform, inspire and empower with the understanding that individual choices do make a difference.

The programs create a forum to provide information to leaders and educators who can leverage the knowledge to a greater audience. The programs also tie directly to the company's existing energy efficiency opportunities, active resource conservation efforts and commitment to the community channel. A variety of curricula are available for downloading from the PSE.com website:

http://pse.com/savingsandenergycenter/ForSchools/Pages/default.aspx

Additional information about how to participate in Education Programs is available through the Company's toll-free number — 1 800 562-1482.

On-Line Tools & Customer Management System

PSE's web site, PSE.com is available with information about energy efficiency and provides energy management tools to residential and business customers.

PSE's Customer Management System (CMS) is a database management system used to support delivery and results tracking of energy efficiency programs and services. Tracking customer program participation as well as tracking and evaluating the efficiency and effectiveness of promotions and implementation are key components of CMS.

Electronic Newsletters

"Energy at Home" is a quarterly e-newsletter promoting Customer Solutions to customers who elect to subscribe using an e-mail address. This free service contains articles about energy efficiency, timely seasonal tips, and links to PSE program information and rebates for energy efficient products. A similar quarterly "Energy in Business" e-newsletter features case studies of energy efficiency projects at PSE customer sites, as well as announcements of upcoming training opportunities. Energy Education Newsletter is a quarterly e-newsletter offering student, teachers and sponsors on expanded ways to learn and take action on energy conservation tips, environmental events, student activities and upcoming energy efficiency projects.







RESIDENTIAL MEASURES, INCENTIVES AND ELIGIBILITY

Residential Low Income Weatherization

Schedule 201 (Electric and Natural Gas)

Eligibility

Customers

Low-income customers; including owners and tenants of single family, multifamily, and mobile homes that meet federal poverty guidelines issued by The Washington State Department of Commerce and receive natural gas and/or electricity from PSE. Low Income agencies are contracted with PSE to perform customer income eligibility, manage the installation and track and report project data to PSE.

Structures

Measures apply to existing single-family, multifamily and mobile home structures.

Funding Categories

Single Family, Multifamily and Mobile Home structure improvements, as detailed below, include the following improvement categories:

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

The majority of measure funding falls into three categories; paid per *square or linear foot* (attic insulation, for instance), per *measure* (for example, a CFL bulb), per *structure* (for example, one furnace or water heater per home).





Incentives

Low Income Weatherization incentives are classified in three types; payments made to agencies on a square-foot basis, payments made per measure and payments per structure. Any limitations and qualifications are noted in the following tables.

Electric Funding

Per Square-Foot Basis

Maggurog	R Eviat R Now	Maximum Payment Amount			
Measures	K-EXISI	K-New	Single Family	Multifamily	Mobile Home
Ceiling Insulation	0	19	\$1.01	\$1.01	\$1.10
	0	30	-	-	\$1.79
	0	38	\$2.43	\$2.43	-
	11	33	-	-	\$1.57
	11	38	\$1.95	\$1.95	-
	19	38	\$1.35	\$1.35	-
Duct Insulation	0	11	\$6.46	\$6.46	-
Floor Insulation	0	19	\$1.87	\$1.87	-
	0	22	-	-	\$2.26
	0	30	\$2.20	\$2.20	\$2.46
	11	22	-	-	\$1.40
	11	30	\$1.38	\$1.13	-
Wall Insulation	0	11	\$2.75	\$2.75	\$2.75
Windows	Single pane	U-value 0.30	\$13.00	\$16.20	\$12.00
	Double pane	U-value 0.30	\$10.00	\$6.00	\$10.00
	Single pane	U-value 0.25	\$18.00	\$18.00	-
	Double pane	U-value 0.25	\$8.00	\$8.00	-





Per-Measure Basis

	Maximum Payment Amount		
Measures	Single Family	Multifamily	Mobile Home
Energy Star® CFL Light Fixtures or equivalent	\$50.00	\$50.00	\$50.00
Energy Star® CFL Screw-in Lamps or equivalent	\$5.00	\$5.00	\$5.00
Energy Star® LED Fixtures or equivalent	\$60.00	\$60.00	\$60.00
Energy Star® LED Lamps or equivalent	\$40.00	\$40.00	\$40.00
Smart Strips	\$25.00	\$25.00	\$25.00
Energy-efficient Shower Head	\$40.50	\$40.50	\$40.50

Per Structure Basis Measures

	Maximum Payment Amount		
Measures	Single Family	Multifamily	Mobile Home
Electronic Thermostats (Replacement of bi-metal thermostats with electronic thermostats. Line voltage thermostats only.)	\$202.50	-	-
Duct Sealing with other measures (unconditioned spaces)	\$500.00	-	\$500.00
Water Heater Pipe Insulation (3 feet, or more, with minimum thermal value of R-3)	\$20.00	\$20.00	\$20.00
Refrigerator Replacement (In accordance with US DOE protocol and Commerce requirements)	\$600.00	\$600.00	\$600.00
Water Heater Replacement (.95 EF or greater, 45-55 gallons)	\$67.00	\$67.00	\$67.00
Ductless Heat Pump (AHRI certified, inverter technology, minimum 1.0 ton)	\$3,407.00	-	-
Energy Star Whole House Fan	\$50.00	\$50.00	\$50.00
Structure Sealing (Per CFM ₅₀ Reduction)	\$1.00	-	\$1.00





Offerings Unique to Structure Type

Multi Family, Existing

- Common Area Upgrades, calculated incentive¹
 - Lighting
 - Heating Upgrade
 - Solar Pool Heater
 - Solar Water Heater
 - Solar Space Heat

Natural Gas Funding

Per Square-Foot Basis

Meesuree			Maximum Payı		ment Amount	
weasures	R-Exist	R-New	Single Family	Multifamily	Mobile Home	
Ceiling Insulation	0	30	-	-	\$0.70	
	0	38	\$0.95	\$0.95	-	
	11	38	\$0.70	\$0.70	-	
Duct Insulation	0	11	\$2.50	\$2.50	-	
Floor Insulation	0	22	-	-	\$0.70	
	0	30	\$0.85	\$0.85	\$0.80	
Tapered Rigid Board	5	38	-	\$0.95	-	
Wall Insulation	0	11	\$0.85	\$0.85	\$0.80	

Per-Measure Basis

Measures	Maximum Payment Amount			
modeuroo	Single Family	Multifamily	Mobile Home	
Energy-efficient Shower Head	\$25.00	\$25.00	\$25.00	



¹ Please reference the Small Business Lighting tables, located in the Commercial/ I. Please reference the Small Business Lighting tables, located in the Commercial/ Industrial section of this document. Based on cost and savings analysis, project payment is based on PSE Cost Effective Standards.



Per Structure Basis Measures

Measures	Maximum Payment Amount			
	Single Family	Multifamily	Mobile Home	
Duct Sealing (unconditioned spaces)	\$400.00	-	\$400.00	
Water Heater Pipe Insulation (3 feet with minimum thermal value of R-3)	\$5.50	\$5.50	\$5.50	
Energy Star® qualified Gas Furnace or equivalent	\$692.00	\$600.00	\$692.00	
Energy Star® qualified Gas Water Heater (.67 EF or greater)	\$158.00	\$158.00	\$158.00	
Structure Sealing (Per CFM ₅₀ Reduction)	\$0.81	-	\$0.44	

Offerings Unique to Structure Type

Multi Family, Existing

- Common Area Upgrades, calculated incentive²
 - Heating Upgrade
 - Solar Pool Heater
 - Solar Water Heater
 - Solar Space Heat

Energy-Related Repairs Funding

All Structures & Fuel Types

<u>Measures</u>

Health and Safety Repairs (including, but not limited to):

- Electrical safety inspection and repairs
- Extermination of pests, insects or rodents
- Mold/mildew abatement
- Installation of carbon monoxide monitors in homes with natural gas

² Incentives will be evaluated using currently accepted PSE commercial engineering calculations. Based on cost and savings analysis, project payment based on PSE Cost Effective Standards.



Weatherization-Related Repairs (including, but not limited to):

- Roof repair
- Plumbing repair
- Mobile home skirt repair
- Ground Cover

Ventilation

- Installation of bathroom and kitchen ventilation fans
- Crawlspace and attic ventilation

Furnace/Water Heater Repair, Maintenance, or Replacement

Energy Education

- In-unit and group consultations
- :Leave-behind information in units and homes



Residential Energy Management



Single Family Existing

Schedule 214 (Electric and Natural Gas)

Eligibility

A manufacturer, retailer, distributor, equipment supplier, contractor or agent acting on behalf of responsible party of service, the customer or tenant with applicable owner authorization, of an existing single-family structure receiving electricity or natural gas through a PSE residential Schedule; Rates 7 (including 17, 27, 37 and 47), 8, 11 and 12.

Single Family Residences include: structures with four or less single-family units that are attached by a contiguous roofline and manufactured or factory built homes (permanently sited). Single Family Residences that are within a multi-family campus as defined in electric and gas Schedules 217 and 218 of this Tariff, and structures under construction are ineligible for this program.

Selected PSE-approved contractors, vendors, or partners may be eligible for compensation to provide direct installation of specified measures—as a part of installation of a related measure. (For example, installing one or more Energy Star® CFL bulbs during an HVAC installation), as a part of a pilot program, a limited-time offering, or other circumstances determined by PSE.

One way that PSE advances the educational value of conservation and energy efficient program participation is to provide complimentary engagement CFL bulbs, LED bulbs, and/or energy-efficient showerheads as a part of home shows, community events, retail promotions or other conservation-focused events.





Incentives

Natural Gas Service

Category	Measure	Maximum Incentive Amount Each
Heating	Energy Star® qualified Gas Furnace, 95% AFUE	\$250.00
	Energy Star® qualified Boilers (greater than or equal to 95% AFUE)	\$350.00
	Integrated Space/Water Heating Systems with Energy Star® Tankless or Energy Star® Boiler	\$800.00
	High Efficiency Natural Gas Fireplace	\$200.00
	Web-Enabled Thermostat Management System	Direct Install. No cost to eligible customers.
Assessment	HomePrint Assessment	Direct install and leave-behind. No charge to eligible customers
Reporting	Home Energy Reports	Direct mail to program participants. No cost to customers.
Water Heating	2.0 gallon per minute or less bathroom showerhead (EPA WaterSense Labeled)	\$15.00
	1.5 gallon per minute or less showerhead (EPA WaterSense Labeled)	Leave behind/Mail-by-request/Direct install/Engagement No cost to eligible customers.
Weatherization	Attic Insulation (R-0 to R-49)	Up to \$600.00/dwelling unit
	Floor Insulation (R-0 to R-30)	Up to \$200.00/dwelling unit
	Wall Insulation (R-0 to R-13)	Up to \$400.00/dwelling unit
	Air Sealing	Up to \$365.00/dwelling unit
	Prescriptive Duct Sealing and Insulation	Up to \$300.00/dwelling unit
	PTCS Duct Sealing	Up to \$300.00/dwelling unit
	Home Performance with Energy Star Rebate	Up to \$400
	Upgrade single-pane or double-pane with metal frame windows to a 0.30 U-factor or better.	\$5.00 per sq ft, up to \$1500.00 per structure

Specific requirements for above incentives

 Some structural, HVAC and water heat measures require qualified contractor installation in order to be eligible for the indicated incentive.

Electric Service







Category	Measure	Maximum Incentive Amount Each
Appliances	Energy Star® Clothes Washer (Energy Star® qualified Washing machine greater than 2.4 MEF).	\$100.00
	Refrigerator or freezer Decommissioning (working condition, greater than or equal to 10 cubic feet.)	\$125.00
	Energy Star® Refrigerator - CEE Tier 1 (greater than or equal to 7.75 cubic feet)	\$25.00
	Energy Star(r) Refrigerator - CEE Tier 2 & 3 (greater than or equal to 7.75 cubic feet)	\$100.00
	Energy Star® Freezer (10% more energy efficient than minimum federal government standard, greater than or equal to 7.75 cubic feet)	\$25.00
	Refrigerator Replacement (Energy Star® qualified model delivered and installed; old refrigerator hauled away and decommissioned)	No cost to eligible customers
	Clothes Washer Replacement (Energy Star® qualified model delivered and installed; old clothes washer hauled away and decommissioned)	No cost to eligible customers
Assessment	HomePrint Assessment	Direct install and leave-behind. No cost to eligible customers
Heating	Heat Pumps	
	Tier 1 = 8.5 HSPF, 14 SEER	\$200.00
	Tier 2 = 9.0 HSPF, 14 SEER	\$350.00
	Tier 3 = 10.0 HSPF, 16 SEER	\$800.00
	Ductless Heat Pumps using inverter technology	\$1,200.00
	Ductless Heat Pumps in Manufactured Homes	\$1,200.00
	Energy Star® Geothermal Heat Pump	\$1,500.00
	Forced-air-furnace to Heat Pump Conversion (greater than or equal to 8.5 HSPF, 14 SEER)	\$1,500.00
	Heat Pump Sizing & Lock out Controls	\$300.00





Electric Measures, Continued

Category	Measure	Maximum Incentive Amount Each
Lighting & Electronics	Energy Star® CFL Bulbs & recycling	\$4.00
	Energy Star® indoor decorative CFL Fixtures & recycling	\$15.00
	Energy Star® Outdoor CFL Fixtures & Recycling	\$15.00
	Energy Star® CFL Ceiling Fan Fixtures	\$15.00
	Energy Star® Engagement CFL Bulbs & recycling	\$2.00
	Energy Star® CFL Bulbs & recycling	Direct install/Leave behind/Engagement. No cost to eligible customers
	Energy Star® criteria LED Bulbs including A-Line, Reflector, MR-16, Candelabra, and other specialty LED bulbs	\$15.00
	Energy Star® criteria LED Indoor Fixture	\$20.00
	Energy Star® criteria LED Outdoor Fixture	\$20.00
	Energy Star® Engagement LED Bulbs	\$15.00
	Energy Star® LED Bulbs	Direct install/Leave behind/Engagement. No cost to eligible customers.
	Lighint Control Room Occupancy Sensors	\$10.00
	Advanced Power Strip with IR Sensor	Direct install/Leave behind/Engagement. No cost to eligible customers.
Reporting	Home Energy Reports	Direct mail to program participants. No cost to customers.
Water Heating	2.0 gallon per minute or less bathroom showerhead (EPA WaterSense Labeled)	\$15.00
	1.5 gallon per minute or less showerhead (EPA WaterSense Labeled)	Leave behind/Mail-by- Request/Direct install/Engagement. No cost to eligible customers.
	NEEA Northern Climate Specs Heat Pump Water Heater - Tier 1	Up to \$500.00
	NEEA Northern Climate Specs Heat Pump Water Heater - Tier 2	Up to \$800.00
	High Efficiency Electric Water Heater (greater than or equal to .95 EF)	\$50.00
	Waste Water Heat Recovery (Models with an efficiency of 42% or greater.)	\$250.00





Electric Measures, Continued

Category	Measure	Maximum Incentive Amount Each
	Attic Insulation (R-0 to R-49)	Up to \$600.00 per dwelling unit
	Floor Insulation (R-0 to R-30)	Up to \$200.00 per dwelling unit
	Wall Insulation (R-0 to R-13)	Up to \$400 per dwelling unit
	Air Sealing	Up to \$365.00 per dwelling unit
	Manufactured Homes Duct Sealing	Direct install. No cost to eligible customers
	Prescriptive Duct Sealing and Insulation	Up to \$300.00 per dwelling unit
	PTCS Duct Sealing	Up to \$300.00/dwelling unit
	Energy Star Whole House Ventilation	Up to \$50 per unit
	Home Performance with Energy Star Rebate	Up to \$400
	Upgrade single-pane or double-pane with metal frame windows to a 0.30 U- factor or better.	\$5.00 per sq ft, up to \$1500.00 per structure

Specific requirements for above incentives

• Some structural, HVAC and water heat measures require qualified contractor installation in order to be eligible for the indicated incentive.





Residential Fuel Conversion

Schedule 216 (Electric only)

Eligibility

A customer or tenant with applicable owner authorization, of an existing single-family structure receiving electricity through a PSE residential Schedule; Rates 7 (including 17, 27, 37 and 47), 8, 11 and 12.

Single Family Residences include: structures with four or less single-family units that are attached by a contiguous roofline and manufactured or factory built homes (mobile and permanently sited). Single Family Residences that are within a multi-family campus as defined in Schedules 217 and 218 of this Tariff and structures under construction, are ineligible for this program. Residential units must be using electricity (provided under terms of an above mentioned PSE Schedule) as its current primary source of space heating and/or water heating.

Incentives will be provided for the conversion to natural gas of the following eligible electric space heating and water heating systems:

- Central forced-air heating systems
- Baseboard heating systems
- Tank-style water heaters

Minimum amounts of prior electric energy usage may be required to qualify for the rebate incentive. Minimum requirements can be found in the individual rebate or program application form.

Eligible electric equipment must be converted to eligible highly efficient natural gas equipment listed below to qualify for incentives.





Incentives

Conversion from Electric Service to Natural Gas Service

Category	Measure	Maximum Incentive Amount Each
Space Heating Only	Natural Gas Space Heating Only -BB	Up to \$2600 per dwelling unit
	Natural Gas Space Heating Only -FAF	Up to \$2000 per dwelling unit
Space and Water Heating	Natural Gas Water and Space Heating - BB	up to \$3550 per dwelling unit
	Natural Gas Water and Space Heating - FAF	Up to \$2950 per dwelling unit
Water Heating ONLY	Natural Gas Water Heating Only - Tank	Up to \$950 per dwelling unit
	Natural Gas Water Heating Only - Tankless	Up to \$950 per dwelling unit

Specific requirements for Fuel Conversion incentives

• Some measures require qualified contractor installation in order to be eligible for the indicated incentive.





Residential New Construction

Schedules E215 and E/G 218

Eligibility

Eligible customers include the owner, developer, builder/owners or agent acting on behalf of responsible party of service receiving electricity through PSE's residential schedules 7 (including 17, 27, 37 and 47) and 7A, 8, 11 and 12, or commercial Schedules 8, 11, 12, 24, and 25; and/or natural gas service through PSE's residential Schedule 23 or commercial Schedule 31.

Incentives for new construction apply for a residential structure that is in a stage of construction which is not yet completed or ready for occupancy. Incentives also apply for new additions to structures and complexes along with renovations that change the occupancy use to residential use. Relevant measures will apply only to the newly constructed and/or substantially renovated portion of the structure.

Energy efficient upgrades for some in unit and common area loads may be served under PSE Commercial/Industrial programs as custom measures. Please see measures listed in the Commercial/Industrial headings of this document or call PSE at 1 800 562-1482 for details.

Structures include all Group R Occupancy as outlined in the 2012 International Energy Conservation Code of the State of Washington, also known as the 2012 Washington State Energy Code (WSEC) edition (effective July 1, 2013). These include, but are not limited to: single-family, duplexes, apartments, town homes, condominiums, senior living residences, and dormitories. The program also serves multifamily campuses which have a mixture of building types and residential developments.

Selected PSE-approved contractors, vendors or developers may be eligible for compensation to provide direct installation of specified measures—as a part of installation of a related measure. (for example, installing one or more Energy Star® light fixtures, showerheads, aerators, etc.), as a part of a pilot program, a limited-time offering, or other circumstances determined by PSE.

For measures that apply to existing structures, please refer to the Multifamily, Existing program measures or Single Family, Existing program measures.





Incentives

Natural Gas Service

Single family, duplexes, townhomes, and buildings with less than 5 units:

Category	Measure	Maximum Incentive Amount Each
Home Bonus		
	NW ENERGY STAR Certified Home	Calculated
	2012 IECC/WSEC R406 Energy Credit Bonus	Calculated

All buildings with 5 or more units.

Category	Measure	Maximum Incentive Amount Each
HVAC		
	Condensing Boiler: Space Heat	\$5.00 per therm
	Condensing Boiler: Service Water Heating	\$3.90 per therm
	Solar Thermal	\$2.70 per therm
	Condensing Water Heater: Service Water Heating	\$1.80 per therm
Water Heat	1.75 GPM or less shower head using gas water heat.	\$15.00
	1.50 GPM or less shower head using gas water heat.	\$25.00

Electric Service

Single family, duplexes, townhomes, and buildings with less than 5 units:

Category	Measure	Maximum Incentive Amount Each
Whole Home	NW ENERGY STAR Certified Home	Calculated
	2012 IECC/WSEC R406 Energy Credit Bonus	Calculated





All buildings with 5 or more units.

Category	Measure	Maximum Incentive Amount Each
Appliances	Energy Star® Clothes Washer CEE Tier 3 and MEF 2.4 or higher	\$75.00
	Energy Star® qualified Refrigerator	\$50.00
Common Area Lighting	Corridor Lighting Reduction (Minimum reduction of at least 5 percent below 2012 IECC/WSEC)	\$0.17 per sq. ft. per % improvement
	Bi-Level Stairwell Lighting (Stairs serving four or more floors)	\$70.00 per fixture per landing
	Garage Lighting Reduction (Minimum reduction of at least 5 percent below 2012 IECC/WSEC)	\$0.005 per sq. ft. per % improvement
Ventilation	Garage CO Demand Control Ventilation with VFD fan control	\$320.00 per horsepower
Whole Building	Target EUI (Energy Use Intensity or Energy Budget) at 35.0 kBTU/sf/yr maximum	Calculated
Water Heat	1.75 GPM Max Electric water heat	\$15.00
	1.50 GPM Max Electric water heat	\$25.00

New Energy Star® or Eco-rated Manufactured Homes are only eligible for the Manufactured Homes incentive. They are not eligible to receive both the Manufactured Homes incentive in addition to another incentive listed above.







Multifamily Existing

Schedule 217 (Electric and Gas)

Eligibility

An owner, developer, contractor, equipment supplier or agent acting on behalf of responsible party of service, or the customer of service of an existing multiple-family structure receiving electricity or natural gas through a PSE residential Schedule 7 (including 17, 27, 37 and 47) and 7A, or commercial Schedules 8, 11, 12, 24 and 25 and/or natural gas service under residential Schedule 23 or commercial Schedule 31 or 41.

Existing multifamily structures <u>exclude</u> those which were recently constructed or are in the construction process.

Structures include, but are not limited to: apartments, town homes, condominium residences and similar structures with five or more attached dwelling units. The program also serves multifamily Campuses³ which have a mixture of building types including buildings with less than five units. Single Family buildings⁴ within a campus may also be eligible to receive measures listed in the Single Family Existing, Schedule 214 chapter, beginning on page 12, and the Residential Fuel Conversion, Schedule 216 chapter, beginning on page 19.

The Multifamily Retrofit program also provides custom measures affecting commercial Schedules, where savings and incentives are calculated by a PSE Energy Management Engineer on a per-structure or per-project basis. Further details of incentive calculation methodology can be found in this publication on page 30.

Multifamily measures not listed may be individually considered for incentives, based on overall cost effectiveness and energy efficiency.

Selected PSE-approved contractors or vendors may be eligible for compensation to provide installation of specified measures—as a part of installation of a related measure. (For example, installing one or more Energy Star® CFL bulbs during an HVAC installation), as a part of a pilot program, a limited-time offering, or other circumstances determined by PSE.

³ Campuses are defined in Electric and Gas Conservation Schedule 217 in the Availability Section.

⁴ Single Family structures are discussed in the Eligibility section on page 12.



Incentives

Natural Gas Service

Category	Measure	Maximum Incentive Amount Each
Building Envelope	Attic Insulation R-0 to R-38	\$0.75 per sq. ft.
	Attic Insulation R-11 to R-38	\$0.75 per sq. ft.
	Wall Insulation R-0 to R-11	\$0.50 per sq. ft.
HVAC	Replace Existing Space Heat Boiler	Calculated incentive
	Replace Existing Domestic Water Boiler	Calculated incentive
	Integrated Space/Water Heating Systems with Energy Star® Tankless or Energy Star® Boiler (In-Unit)	\$800.00
	High Efficiency Natural Gas Fireplace	\$250.00
	Energy Star® qualified Boilers (In-Unit)	\$350.00
	Energy Star® qualified Gas Furnace, 95% AFUE (In-Unit)	\$250.00
Pool Heaters	Solar Pool Heater	Calculated incentive
	Pool Boiler	Calculated incentive
Water Heat	Direct Install 1.5 Gallon Per Minute or less Shower Heads	Direct Install - no charge to eligible customers
	Direct Install 1.5 Gallon Per Minute or less Shower Head with Integrated Thermostatic Restrictor Valve	Direct Install - no charge to eligible customers
	Direct Install Thermostatic Restrictor Shower Head Adaptor	Direct Install - no charge to eligible customers

Specific requirements for above incentives

- A signed Multifamily Incentive Application must be authorized by PSE prior to installation of upgrades (unless otherwise approved by PSE)
- Customer must meet all requirements outlined in the most current PSE Multi-family Retrofit Program Guidelines to participate and receive incentives
- A Multifamily Payment Request must be authorized by PSE in order to execute incentive payment
- All calculated incentives will be evaluated using currently accepted PSE commercial engineering calculations
- All installed measures and incentives require installation by a qualified contractor.





Electric Service

Category	Measure	Maximum Incentive Amount Each
Appliances	Energy Star® or equivalent Clothes Washer MEF 2.46 or Greater	\$100.00
	Directly installed Clothes Washer Replacement (Pre-existing model must be 2003 or older, with electric DWH and electric dryer.)	No charge to eligible customers
	Energy Star® or High Efficient Refrigerator	\$20.00
	Directly Installed Refrigerator Replacement (Pre-existing model must be pre-1993)	No charge to eligible customers
	Directly Installed Smart Strips	No charge to eligible customers
Building Envelope	Attic Insulation R-0 to R-38	\$0.75 per sq. ft.
	Attic Insulation R-11 to R-38	\$0.75 per sq. ft.
	Attic Insulation R-19 to R-38	\$0.75 per sq. ft.
	Floor insulation R-0 to R-30	\$0.75 per sq. ft.
	Floor Insulation R-11 to R-30	\$0.75 per sq. ft.
	Wall insulation R-0 to R-11	\$0.75 per sq. ft.
	Single-Pane Windows to U value 0.30 or less	\$6.00 per sq. ft.
	Single-Pane Windows to U value 0.22 or less	\$8.00 per sq. ft.
	Double -Pane Windows to U value 0.30 or less	\$6.00 per sq. ft.
	Double-Pane Windows to U value 0.22 or less	\$8.00 per sq. ft.
	Structure Sealing	No charge to eligible customers
HVAC	Energy Star® Whole House Ventilation	\$40.00
Lighting	Tenant Controlled Energy Star® CFL Fixtures & recycling	\$20.00 per fixture
	Tenant Controlled Energy Star® CFL Bulbs (directly installed) & recycling	No charge to eligible customers
	Tenant-controlled Energy Star® or equivalent LED Fixtures	\$30.00 per fixture
	Tenent-controlled Energy Star® or equivalent LED Bulbs (directly installed)	No charge to eligible customers
	Common Area Lighting	Calculated incentive



Electric Measures, Continued

Category	Measure	Maximum Incentive Amount Each
Pool Heat	Solar Pool Heater upgrade	Calculated incentive
Water Heat	Directly installed 1.5 Gallon Per Minute (GPM) or less shower heads	No charge to eligible customers
	Directly Installed Water Heater Pipe Wrap; R3 value minimum 3 feet.	No charge to eligible customers
	High Efficiency Electric Water Heater (greater than or equal to .95 EF)	\$50.00

Specific requirements for above incentives

- A signed Multifamily Incentive Application must be authorized by PSE prior to installation of upgrades (unless otherwise approved by PSE)
- Customer must meet all requirements outlined in the most current 2012-13 PSE Multifamily Retrofit Program Guidelines to participate and receive incentives.
- A Multifamily Payment Request must be authorized by PSE in order to execute incentive payment
- All calculated incentives will be evaluated using currently accepted PSE commercial engineering calculations.
- All installed measures and incentives require installation by a qualified contractor





BUSINESS MEASURES, INCENTIVES AND ELIGIBILITY

Business Energy Reports

Schedule 249 (Electric only)

Eligibility

Selected small to medium-sized businesses, within targeted segments of this pilot, receiving electricity or bundled natural gas service from PSE under Commercial and/or Industrial rate schedules are eligible.





Commercial and Industrial Retrofit

Schedule 250 (Electric and Natural Gas)

Eligibility

All Commercial and/or Industrial customers receiving electricity or bundled natural gas service from PSE are eligible. Customers receiving service under Schedule 40, 46, 49 are required to first utilize their designated Schedule 258 allocation for incentives prior to receiving funding from other programs with the exception of programs requiring multi-year contracts. Schedule 448, 449, 458, and 459 customers may utilize their Schedule 258 funding allocation for measures offered under this Retrofit program and its related contracted programs. Projects must be approved for funding prior to installation/implementation.

Commercial and Industrial Retrofit incentives are calculated on an individual basis. They take the form of a grant, which is provided upon completion and verification of the project.

Measures and Incentives

The Retrofit program is a custom incentive program. It is not limited to any measure type or markets. It is intended to provide the customer flexibility in developing projects that will result in energy savings.





Measures	Incentive	Eligibility
Grants for Lighting	Based on cost and savings analysis, pay the lesser of 50% of the project cost or \$0.20 per annual kWh savings for measures where savings is calculated and not to exceed product cost for measures with prescriptive incentives. Eligibility is subject to PSE Cost-Effective Standards.	Lighting measures
Grants for Enhanced Lighting	Based on cost and savings analysis, pay the lesser of 70% of the project cost or \$0.30 per annual kWh savings, subject to PSE Cost-Effective Standards.	Lighting measures when all inefficient lighting at the facility is addressed (including controls)
Grants for Non-Lighting Measures	Based on cost and savings analysis, pay the lesser of 70% of the project cost or \$0.30 per annual kWh savings (\$5.00 per annual therm savings), subject to PSE Cost-Effective Standards.	Non-Lighting measures
Commissioning Incentive	See table and information that follows	Depends on services provided by PSE. See table and information that follows

Available Grants include, but are not limited to:





Measure: Comprehensive Building Tune-Up (CBTU) Program

For existing building commissioning, incentives are designed to cover up to 100 percent of the commissioning costs, as well as to provide the owner a full list of cost-effective energy savings opportunities. The owner is required to commit up to a pre-set dollar amount to implement operational improvements with a less than or equal to two year payback as well as provide up to 50 hours of Operations and Maintenance (O&M) staff time for participation in the process, including training.

Incentives are paid in two phases. A base Incentive is paid after an Assessment and Commissioning is completed. A performance Bonus Incentive is paid after first-year savings requirements are met and the owner documents that savings improvements are still in place. If the assessment determines the building is an inappropriate candidate for Commissioning, only the Assessment portion of the Base Incentive will be paid.

If there is no metering at the building level, the customer may also be eligible for an incentive for sub-metering to assist the owner in monitoring building energy usage.




CBTU Program Incentives

Description Incentive Details		Ma Buildi	aximum Incent ing's Utility Se	tive ervices
		PSE Provides Electric and Gas	PSE Electric Only (Other Gas)	PSE Gas Only (Other Electric)
	Incentive Cap	75% of Co	ommissioning Pro	vider Costs
	Assessment (Minimum Grant)	\$5,000	\$4,000	\$2,000
Base Incentive for Commissioning (CX)	Remaining CX Process: (Investigation, Verification, Systems Manual, Training)	\$0.35/sf	\$0.25/sf	\$0.15/sf
	Cost of Improvements (Maximum)	\$0.15/sf	\$0.10/sf	\$0.10/sf
	Required Improvements	Improvements with ≤ 2 year payback		
Owner Commitment	Implementation Time Frame	Within 6 months of Investigation		
	Senior O&M Staff Time	50 hours to participate in process and training		
	Incentive Cap	100% of Total C	Cost (CX Provider -	+ Implementation)
	Incentive for Electric Savings	\$0.05/kWh	\$0.05/kWh	N/A
One Year Performance Bonus Incentive	Incentive for Gas Savings	\$0.80/therm	N/A	\$0.80/therm
	Required Building Savings	10%	10%	15%
Required documentation Evidence that improvements are		re still in place.		
Sub-metering Incentive	Eligible for incentive if no metering is present at the building level	Pay the lesser of 70% of cost to install sub-meter he or \$3,000 per building.		nstall sub-metering ing.





Energy Smart Grocer (ESG)

Eligibility

Grocery stores and convenience stores with commercial refrigeration equipment are eligible for this program. This program may offer incentives under the C&I Retrofit Schedule 250 program or the New Construction Schedule 251 program.

Measures

Typical measures eligible under this program include refrigeration controls, case lighting retrofits, strip curtains, gaskets, auto-closers, and electronically commutated motors. For a complete list of eligible measures, see the Energy Smart Grocer program website for PSE at: http://energysmartonline.org/utilities/pse_index.html.

Incentives

Incentives for this program may be based on refrigeration system tonnage, nominal compressor horsepower, lineal feet of refrigerated cases, square footage of walk-in door openings, or quantities of equipment installed. Incentives are subject to PSE Cost-Effective Standards. For a complete list of incentives offered to customers under this program, see the Energy Smart Grocer program website for PSE at http://energysmartonline.org/utilities/pse_index.html.





Data Center Energy Efficiency Program

Eligibility

Business customers receiving electricity from PSE are eligible for this program.

Measures

The objective of the Data Center Energy Efficiency Program (DCEEP) is to identify, evaluate, and implement projects in customer data center facilities to improve energy efficiency. The program takes a comprehensive approach to address both capital investment opportunities and operational inefficiencies.

Common measures in data center projects include operational efficiency improvement, lighting retrofit and controls, server virtualization, hot/cold air separation, equipment retrofits, and cooling efficiency improvement.

Examples of operational efficiency improvement include temperature set point changes, air flow management, decommission or disconnect unused equipment, and optimize cooling control sequences.

Measures	Incentive	Eligibility
Operational Efficiency Improvement	Based on cost and savings analysis, the customer incentive is the lesser of 70% of the project cost or \$0.05 per annual kWh savings, subject to PSE Cost-Effective Standards.	Based on verified cost and savings.
Lighting Measures	Based on cost and savings analysis, the customer incentive is the lesser of 50% of the project cost or \$0.20 per annual kWh savings, subject to PSE Cost-Effective Standards.	Based on verified cost and savings.
Other Non-Lighting Measures	Based on cost and savings analysis, the customer incentive is the lesser of 70% of the project cost or \$0.30 per annual kWh savings, subject to PSE Cost-Effective Standards.	Based on verified cost and savings.

Incentives





Industrial System Optimization

Eligibility

Industrial customers receiving electric service from PSE are eligible for this program.

Measures

The objective of the Industrial System Optimization Program (ISOP) is to identify, evaluate, and implement projects in industrial customer facilities to improve operational energy efficiency. The focus is on energy intensive systems such as refrigeration, compressed air, pumping, fans and blowers. This is a Performance Basis program that determines savings based on actual verified electric savings from implemented measures.

Operational efficiency improvement measures reduce the energy consumption of a system, process, and entire plant without significant capital investment. The measure focuses on the operation changes instead of equipment or system retrofit.

Examples of the operational efficiency improvement measures include control sequence modification and set-point adjustment for refrigeration systems, compressed air leak detection and repair, compressed air shut-off valves at workstations, modulation of fan or blower speeds based on demand, and controls, modification, or installation of timers to shut off pumps when not required for the operation.

Incentives

There are two potential incentive paths. The PTS (performance tracking system) incentive allows the customer to install low-cost devices to track performance on a particular system if warranted. The other incentive is the direct operational efficiency improvement incentive based on verified energy savings.





Measures	Incentive	Eligibility
Performance Tracking	The Lesser of:	
System (PTS)	1) \$0.0018 times baseline kWh usage; or	End user purchases
	2) \$10,000; or	approves of PTS.
	3) 100% of documented PTS costs.	
Operational Efficiency	The Lesser of:	
Improvement	1) \$0.05 times verified kWh saved minus the PTS incentive; or	
	2) \$0.05 times 10% of baseline kWh usage minus PTS incentive; or	Based on verified savings.
	3) 70% of Action Item Cost plus PTS Cost minus PTS incentive.	
	Based on cost and savings analysis, and subject to PSE Cost-Effective Standards.	





Commercial and Industrial New Construction

Schedule 251 (Electric and Natural Gas)

Eligibility

Owners, customers, tenants with appropriate owner consent and developers of facilities to be served by PSE with electricity or bundled natural gas are eligible for new construction incentives. When a new facility will receive power through an existing meter on Schedule 40, 46, 49, 448, 449, 458, or 459 the customer's Schedule 258 allocation must be used for the measures. If the existing meter is a Schedule 40, 46, or 49 and the customer's Schedule 258 allocation is depleted, then funding can be provided under this program and schedule. Schedule 448, 449, 458 and 459 customers may use their Schedule 258 allocation for Commercial and Industrial New Construction incentives. Projects must be approved for funding prior to installation and/or implementation.

Incentives

There are three incentive paths for New Construction projects. The paths are intended to provide customers flexibility in meeting their project needs. A commissioning incentive may be used in combination with any of these paths.





Path	Incentive Eligibility	
Component Approach	<u>Lighting</u> : lesser of 100% of the incremental cost or \$0.20 per annual kWh savings, subject to PSE Cost-Effective Standards.	
	<u>Non-lighting</u> : lesser of 100% of the incremental cost or \$0.30 per annual kWh savings, subject to PSE Cost-Effective Standards.	When doing in lieu of whole building approaches.
	Natural gas: lesser of 100% of the incremental cost or \$5.00 per annual therm savings, subject to PSE Cost-Effective Standards.	
Energy Model Whole Building	\$0.60 per sq. ft. for projects 10% better than code and ramp up to \$1.80 per sq. ft. for projects 30% better than code	Facilities must be more than 100,000 sq ft., excluding hospitals and projects with multiple integrated measures for which component approach is inadequate to fully evaluate all measures, as determined by PSE.
	Hospitals with Baseline EUI more than 150,000 Btu/sq. ft.: \$1.40 per sq. ft. for projects 10% better than code and ramp up to \$4.20 per sq. ft. for projects 30% better than code.	PSE electric with other gas supplier incentives are \$0.30- \$0.90 per square foot; \$0.70- \$2.10 per square foot for Hospitals.
Prescriptive Basis Rebates Measures	See eligible measures list under Commercial	& Industrial Incentives section.





Incentives, based on square foot of conditioned space, are available for projects utilizing an independent commissioning agent of post-occupancy commissioning:

Maximum Inc		m Incentive (per sq. ft.)	
Building's		ing's Utility Services	
	PSE Provides	PSE Electric Only	PSE Gas Only
	Electric and Gas	(Other Gas)	(Other Electric)
Post Occupancy Building Commissioning	\$0.25	\$0.20	\$0.04

Additionally, new grocery stores and convenience stores with commercial refrigeration equipment may qualify for incentives under the Energy Smart Grocer program as described in the Commercial and Industrial Retrofit section.





Resource Conservation Management Incentives

Schedule 253 (Electric and Natural Gas)

Eligibility

Any school district, public-sector government agency and commercial or industrial (C/I) customer with facilities receiving electric service under Electric Tariff G from PSE is eligible. Schedule 448, 449, 458, and 459 customers may utilize their Schedule 258 funding allocation for Resource Conservation Management (RCM) Incentives.

Customer eligibility is determined by PSE energy base load and potential savings. A typical customer baseline for a fulltime equivalent (1 FTE) program is annual use of 20,000,000 kWh for electric-only or 2,700,000 therms of natural gas-only service from PSE. At a minimum, the customer must quality for 0.25 FTE to participate in the RCM program on their own. Cash incentives are allocated in relationship to FTE of staffing and can be prorated to accommodate part time staffing to implement program activities.

For customers unable to participate in the RCM program, PSE may offer Strategic Resource Management (SRM) services. Customers qualify for the SRM program based on their annual PSE energy purchases. The minimum customer baseline to participate in the SRM program is annual use of 1,000,000 kWh for electric service from PSE.

General Description of Program Offerings

Resource Conservation Management (RCM)

The table below summarizes the Grant and Services package for the RCM program. A description of each menu item follows providing details of the service and required deliverables. The grant measures are allocated to the year in which PSE expects them to be paid; the actual timing will vary based on the customer's completion of deliverables.





Direct Customer Incentive Table – Figures based on one full-time equivalent (FTE)



Program Element		Formula / Notes	Measure Cost	Incentive
	Training Allowance	Training stipend for participation in BOC Level 1 & 2 training or other accredited training if desired, subject to approval by PSE. Measure cost is PSE discounted tuition.	\$2,000	\$2,000
	Start-Up Incentive	Start-up incentive provided to customers that submit required first year deliverables within first year of grant. Measure cost is 100% of incentive amount.	\$10,000	\$10,000
Year 1	Performance Incentive	Performance incentive of \$0.02/kWH and \$0.15/therm of savings, up to PSE defined performance target (typically 3% of baseline). If a customer exceeds the target, the performance incentive increases to \$0.035/kWh and \$0.25/therm for each additional unit of energy savings over the target up to 70% of the measure cost.	\$80,000	\$12,000
		In this table, an example performance incentive of \$12,000 is shown for a customer that saved 600,000 kWH, or 3% of a 20,000,000 kWh baseline. The measure cost is equal to 100% of deemed customer annual program cost, minus the start-up and bonus incentive amount.		
	Performance Bonus Incentive	Performance Bonus incentive if customer meets or exceeds PSE defined performance target (typically 3% of baseline). Measure cost is 100% of incentive amount.	\$10,000	\$10,000
	Training Allowance	Training stipend for participation in BOC Level 1 & 2 training or other accredited training if desired, subject to approval by PSE. Measure cost is PSE discounted tuition.	\$2,000	\$2,000
Year 2 / Year 3	Performance Incentive	Performance incentive of \$0.02/kWh and \$0.15/therm of savings, up to PSE defined performance target (typically 5% of baseline). If a customer exceeds the target, the performance incentive increases to \$0.035/kWh and \$0.25/therm for each additional unit of energy savings over the target up to 70% of the measure cost. In this table, an example performance incentive of \$20,000 is shown for a customer that saved 1,000,000 kWH, or 5% of their 20,000,000	\$80,000	\$20,000
		kWH baseline. The measure cost is equal to 100% of deemed customer annual program cost, minus the bonus incentive amount.		
	Performance Bonus Incentive	Performance Bonus incentive if customer meets or exceeds PSE defined performance target (typically 5% of baseline). Measure cost is 100% of incentive amount.	\$20,000	\$20,000
Total	Incentives for Initial Three-	Year Agreement	\$306,000	\$118,000





RCM Direct Customer Incentive Descriptions

1. Start-Up Incentive

This is a one-time incentive that pays for 10 percent of the time spent on establishing an RCM program during the first year. The actual grant amount will be determined by the customer's PSE energy consumption. Start-up incentives may be prorated for smaller or larger organizations down to a minimum of 0.25 FTE.

The start-up incentive will be paid provided the customer completes the following deliverables:

- 1. Populate and maintain a Utility Manager Resource Accounting Database (or PSE approved equivalent)
- 2. Hire an RCM or dedicate staff time to RCM activities
- 3. Complete a Resource Management Plan
- 4. Complete Facility Action Plans (or PSE approved equivalent) for all buildings

These deliverables are outlined in a scope of work and are estimated to be completed in the first six to nine months of the agreement. The incentive may be paid at the end of the first six months provided the scope of work has been completed.

2. Performance Incentive

Once the customer has completed start-up deliverables outlined in item 1, they will be eligible to receive additional cash incentives for achieving energy savings. Only savings achieved relative to occupant and behavioral practices and improvements in operation and maintenance (O&M) practices will be considered for the performance grant. To determine performance grant savings, energy usage will be adjusted for PSE incentivized facility upgrades (ECMs), weather, and other major facility changes.

3. Performance Bonus Incentive

If the customer meets or exceeds their first year target (typically 3 percent), they can receive a bonus incentive. Note that unlike the performance incentive, savings associated with facility upgrades (ECMs) incentivized through other PSE programs can be attributed to the performance bonus incentive. The customer can also receive a performance bonus incentive if they meet or exceed their second or third year target (typically 5 percent).

4. Training Stipend

For each RCM FTE employed under a Puget Sound Energy RCM agreement, PSE will provide a training stipend. The training budget is based on a negotiated PSE-RCM discounted tuition for the Building Operator Certification (BOC) program. The stipend can be applied to any other equivalent, credentialed RCM-related training course with prior PSE approval only. Tuition allotment will be prorated based on customer FTE allocation.





The RCM will be responsible for initial payment and registration and any courserelated materials and/or supplies. Travel or other ancillary costs will not be reimbursed. Upon completion of the training course, the RCM shall submit to PSE their final coursework and certificate of completion along with an invoice requesting reimbursement. PSE will review the submittal for successful completion of the training program, and upon approval, will make payment to the customer up to the amount of the training cost or stipend outlined in this grant.

5. Renewal Grants

For customers who have reached the end of their initial 3-year RCM agreement, PSE will offer a Renewal contract for an additional three (3) year term. The Renewal contract will include a training stipend, performance incentive, performance bonus incentive, continued technical support and access to the RCM program's value-added services. Similar to the initial agreement, customers will be given targets (typically 5 percent reduction) for each year of the renewal agreement.

RCM Value Added Service Descriptions

There are a number of support activities that PSE provides to each RCM customer as a part of their RCM agreement. While these program elements do not relate to a cash incentive, they are specific project-oriented tasks that relate to a value of service that can be quantified for each customer based on their organization profile. A description of each major service is provided below.

1. Resource Management Software

PSE will provide the customer with the resource management software. The software will be delivered to the customer with a basic set up including facility information and PSE accounts, and will be populated with historical PSE billing data.

Once the software is delivered to the customer, the customer is expected to complete the setup with organization structure, building information, utility companies, and account numbers for electricity, gas, water, wastewater, and solid waste accounts. This set up is a required deliverable for the start-up grant. The customer agrees to submit a copy of their database to PSE on an annual basis.

2. Resource Management Software Set Up

PSE staff will work with the customer to develop a comprehensive list of the customer's PSE gas and electric accounts and align them to the correct facility. Once this list is developed; PSE will complete the initial setup of resource management with the customer's facilities and PSE accounts and meters.





3. Historical PSE Billing Data

PSE staff will pull historical billing histories for the customer's PSE accounts and will populate the initial resource management software with this information. Once the software has been populated with PSE data, the software will be transferred to the customer for their completion and ongoing maintenance.

4. Monthly PSE Data Downloads

Once the customer has possession of their resource management software, PSE will begin the process of providing monthly updates on PSE billing data. This information is intended for energy management purposes and not meant to facilitate payment of any PSE invoice.

5. Software Maintenance and Technical Support

PSE will provide annual Technical Support for the customer's resource management software. The customer agrees to maintain their software by updating utility data on a monthly basis and agrees to provide PSE access of their software data on an annual basis.

6. Energy Interval Data

PSE's Energy Interval Service is an internet-based energy information and management tool that helps customers see and interpret utility-use patterns using interval data from gas and electric revenue meters. The system provides timely access to meter and cost data any time of day, seven days a week over a secured website. The value of this service is the enablement of customers to identify how much, how often, and when power or gas is used at given intervals of time. Data is typically available for viewing the following day after use. PSE will provide the customer with access to the interval data system for all qualifying meters.

7. Annual Savings Analysis

PSE will work with the customer to calculate O&M energy savings after each 12month period of their RCM contract. Adjustments will be made for major capital improvements, change in use, weather, and other factors that may have had a significant impact to facility energy use.

8. NEEA Conduit Website Access

PSE will provide access to a private group, "Puget Sound Energy RCM Group", on Northwest Energy Efficiency Alliance (NEEA)'s Conduit website. This group is an online technical support and materials center that has been developed to help RCMs with their program implementation. The group hosts PSE program materials that have been developed for implementation and reference and allows for RCMs to communicate with each other in a chat room style setting.





9. Three-for-Free Technical Audits

For each RCM FTE, PSE will provide an initial three (3) facility audits to jump-start customers on the process of completing Facility Action Plans. The site visits will act as both training and technical assistance such that through this process, and along with the RCM training series, each RCM will gain the knowledge necessary to perform their own detailed facility audits. During these first walkthroughs, the RCM will learn how to gather the information necessary to complete the second deliverable of the Start-up Grant, their Facility Action Plans. The number of site visits will be prorated based on FTE.

10. RCM Training Series

To support customers' resource conservation efforts, PSE has designed a series of courses to help customers learn more about building energy, resource consuming systems, and the tools that will help customers be effective in their role as resource conservation managers. There are core classes offered, as well as a number of advanced and specialized courses. Most training classes are scheduled to be held at the Bellevue PSE campus, but may be customized for and offered at customer's facilities. Webinars may also be available.

Strategic Resource Management (SRM)

PSE provides an incentive of 70 percent of a third-party contractor's (3p) cost to implement the SRM program for the customer. In addition, PSE will provide a customer incentive of \$0.02 per kWh for annual electric savings up to 30 percent of the service cost, resulting in the incentive covering 100 percent of the 3p's cost for successful implementation. The energy savings target will be 5 percent of the customer's baseline. If the 3p successfully helps the customer surpass the target, the 3p will receive an additional contractor incentive of \$0.02 per kWh for annual electric savings that exceed the target.

A customer may participate in the program for multiple years as long as they continue to meet or exceed the 5 percent annual target. The 5 percent target will be calculated based on a rolling baseline. For ongoing years, PSE will continue to fund 70 percent of the services costs, and will provide an incentive of \$0.02/kWh (up to 30 percent of service costs) to the customer based on the rolling base. The 3p performance incentive will be \$0.02/kWh based on a new 5 percent reduction target.

The 3p will also provide value added services, which include:

- Customer portfolio benchmarking
- Energy management workshop
- Assistance in the development and implementation of a Resource Management Plan (RMP)
- Building walkthroughs and control system review for the top five highest opportunity buildings
- Identification of capital, O&M, and behavior energy savings opportunities
- Creation of 12-month Portfolio Action Plan





Commercial and Industrial Large Power User Self-Directed

Schedule 258 (Electric only)

Eligibility

Customers receiving electrical service from the Company under Schedules 40, 46, 49, 448, 449, 458 or 459 (or their equivalent) of Electric Tariff G with cost-effective electric energy efficiency projects are eligible to respond to the Company's Requests for Proposals (RFPs). Schedule 258 and the RFPs outline all project funding criteria.

Incentives are calculated on an individual basis. They take the form of a grant, which is provided upon completion and verification of the project.

Incentives

The program is a custom incentive program. It is not limited to any measure type or markets. It is intended to provide the customer flexibility in developing projects that will result in energy savings.

The incentive amount is the lesser of the Total Measure Cost, \$0.50 per annual kWh savings, or the customer's remaining incentive allocation, subject to PSE Cost Effectiveness Standards.





Measure categories include, but are not limited to:

Category	Includes
HVAC and Refrigeration	 HVAC – unitary HVAC – central Heat Recovery Systems Chillers Economizers VAV Boxes
Process Efficiency Improvements	 Refrigeration Systems Motor and Drive Systems Fan, Compressor and Pump Systems or Stations High Efficiency Motors Other Process Modifications
Building Thermal Improvements	 Roof and Ceiling Insulation Exterior Roof Insulation Wall Insulation Insulated Windows Duct Insulation
Existing Building Insulation	
Controls	 Energy Management Systems Lighting Control Systems Process and Other Efficiency Control Systems
Lighting Improvements	 Fluorescent Luminaires Compact Fluorescent Luminaires HID Luminaires LED Exit Signs
Water Heating Improvements	 Water Heaters Piping Insulation Low Flow Devices
Resource Conservation Management (RCM)	





Commercial and Industrial Incentives

Schedule 262 (Electric and Gas)

Eligibility

All Commercial and/or Industrial customers receiving electricity or bundled natural gas service from PSE are eligible. Schedule 40, 46 and 49 customers who are eligible to participate in the Schedule 258 Program must first utilize their Schedule 258 allocation before they are eligible to receive additional incentives under this program. Schedule 448, 449, 458, and 459 customers may utilize their Schedule 258 funding allocation for measures offered under this program.

Multifamily-related businesses or those with dwelling units will be referred to the Multifamily Program.

Incentives

Commercial Washers

Measure	Incentive Amount	Eligibility
High-Efficiency Clothes Washers	\$200.00 per unit	CEE qualified

Commercial Kitchens

Dishwashers

Customers will receive a rebate based on dishwasher type and the energy source for water heating and/or a booster heater as outlined by the table below when an Energy Star® Qualified model is purchased. Some leased equipment may also qualify when the lease result in the customer owning the equipment at the end of the lease period.

When the energy for water heating and the booster is different, PSE will pay the eligible customer the rebate amount that corresponds to the component of the equipment using energy provided by PSE.

In applicable instances, PSE will coordinate with the utility that provides the energy for the opposite energy use (for instance, in Snohomish County, PSE provides the natural gas and Snohomish County PUD provides the electricity) and the water utility for consideration for potential incentives when those utilities have corresponding rebates.





Туре	Water Heater Type	Booster Type	Electric Rebate	Gas Rebate	Total Rebate
Under Counter, Low Temp	E	-	\$150		\$150
Under Counter, Low Temp	G	-		\$150	\$150
Under Counter, High Temp	E	E	\$150		\$150
Under Counter, High Temp	G	E	\$150		\$150
Under Counter, High Temp	E	G	\$150		\$150
Under Counter, High Temp	G	G	\$100	\$50	\$150
Door Type, Low Temp	E	-	\$750		\$750
Door Type, Low Temp	G	-		\$750	\$750
Door Type, High Temp	E	E	\$750		\$750
Door Type, High Temp	G	E	\$500	\$250	\$750
Door Type, High Temp	E	G	\$500	\$250	\$750
Door Type, High Temp	G	G		\$750	\$750
Single Tank Conveyor, Low Temp	E	-	\$1,000		\$1,000
Single Tank Conveyor, Low Temp	G	-		\$1,000	\$1,000
Single Tank Conveyor, High Temp	E	E	\$1,000		\$1,000
Single Tank Conveyor, High Temp	G	E	\$750	\$250	\$1,000
Single Tank Conveyor, High Temp	E	G	\$750	\$250	\$1,000
Single Tank Conveyor, High Temp	G	G		\$1,000	\$1,000
Multi Tank Conveyor, Low Temp	E	-	\$1,500		\$1,000
Multi Tank Conveyor, Low Temp	G	-		\$1,500	\$1,000
Multi Tank Conveyor, High Temp	E	E	\$1,500		\$1,500
Multi Tank Conveyor, High Temp	G	E	\$1,000	\$500	\$1,500
Multi Tank Conveyor, High Temp	E	G	\$1,000	\$500	\$1,500
Multi Tank Conveyor, High Temp	G	G		\$1,500	\$1,500





Cooking Equipment

Measure		Incentive Amount	Eligibility
Steamers		\$750/unit	Energy Star® Qualified
Deep Fat Fryer		\$250/electric unit \$750/gas unit	Energy Star® Qualified
Hot Food Iding Cabinets	Larger than 20 cubic feet 12 to 20 cubic feet 7 to less than 12 cubic feet	\$400/unit \$300/unit \$200/unit	All CEE Tier 2 qualified
Ovens	Commercial Natural Gas or Electric Convection Ovens Electric Combination Oven Single or Double-Rack Oven	\$500/oven cavity \$2,000/unit \$2,000/unit	A list, based on the Food Service Technology Center (FSTC) will be made available to commercial kitchen equipment dealers and will be posted on the Company's website.





Hospitality

Measure	Incentive Amount	Eligibility
Hospitality Restroom Lighting Controls	\$10.00/unit	Electric customers who purchase qualifying lighting products for restrooms within guest rooms with a minimum connected load of 50W.
Hospitality HVAC Occupancy Controls	\$75.00/unit	Unoccupied set point differential must be at least eight (8) degrees Fahrenheit.
Hospitality High Efficiency Terminal Heat Pumps	\$150.00/unit	Commercial electric customers who purchase qualifying Packaged Terminal Heat Pumps and install them in PSE service territory.

HVAC

HVAC New Construction

Measure	Incentive Amount	Eligibility
High Efficiency Heat Pumps and Air Conditioners—New Applications.	\$30.00/ton	Must meet CEE Tier I qualifications.





HVAC Retrofit

Measure			Rebate	per Ton	Eligibility/ Notes	
		Retrofit System	CEE Tier I	CEE Tier II		
	Pump	Heat Pump	\$100.00	\$150.00	All existing equipment is required to be removed or	
Existing System	Heat	Gas Pack	\$500.00	\$550.00	disabled. PSE customers using an	
	Electric	Heat Pump	\$500.00	\$550.00	operational heating and/o cooling system to provide conditioned air to an	
	Electric	Gas Pack	\$500.00	\$550.00	for this rebate	
	Gas/Electric	Gas/Electric	\$100.00	\$150.00	CEE Tier I or better qualifications.	

*Note: Electric/Electric systems are those which are designed to provide heating solely through electric resistance.

Premium HVAC Service

Measure	Incentive Amount	Eligibility
Premium HVAC Service	Three Incentive categories; Retail, Specialty Retail and Office, each with an incremental variety of service offerings, ranging from \$50.00* to \$1,870.00 per unit, depending on system size; 4 tons to 20 tons and over 20 tons. *Some incentive packages are provided concurrently, while some are in addition to others.	Based on the level of Premium Services and amount of equipment repair or replacement required at the site.





Lighting

Customers may receive incentives for energy efficient lighting upgrades by submitting a completed application for incentive payment, or by purchasing efficient lighting products from approved vendors that provide incentives at point of sale.

	Measure	Incentive Amount	Eligibility	
Lighting Controls	Occupancy sensor (including fixture mounted) or timer control	\$45.00	Commercial grade	
New LED Exit Sign Retrofit		\$25 per Exit Sign	Complete removal and replacement of the entire exit sign, including its components and enclosure. Input power demand 5 Watts or less per sign.	
	Decorative Lamps	\$5.00	ENERGY STAR® qualified	
nps; hting ions	Omnidirectional Lamps and MR16 Lamps	\$10.00	or Lighting Design Lab qualified	
LED Larr Down Ligl Applicati	Directional Lamps (greater than <u>or</u> <u>equal to</u> 20/8 inch) and Screw-in Recessed Can Retrofit Kits	\$20.00		
	Hard Wire Recessed Can Retrofit Kits	\$25.00		
T-12 to T8 Retrofit	T-12 to T8 Replacement	\$10.00 per lamp	Electronic T8 ballast required	
Reduced- wattage T8 Lamps	25 – 28 Watts. Existing 32-watt 4- foot T8 lamps retrofitted to CEE Listed 25 – 28 Watt T8 lamps as part of a group re-lamp project.	\$1.00 per lamp	Previously paid retrofits are ineligible.	





Refrigeration

Beverage Cooler Controllers

Measure	Incentive Amount	Eligibility
Refrigerated beverage cooler controllers	Installed at the customer's site at no charge.	Any non-hardwired commercially used cooler not containing perishable items and will not contain them in the future. Must be part of the direct installation program.

Ice Makers

Measure	Eligibility							
Commercial Ice Makers	Ice makers that meet PSE's Super Efficient Ice Maker kWh/Ib of ice made in 24 hours shown in the table below:							
				Incentive A	An	nount		
		\$100.00	per unit			\$3	300.00 per ur	nit
Ice Harvest Rate (Pounds per 24 hr	Up to 200 Ibs	201-300 Ibs	301-400 Ibs	401-500 Ibs		501-1000 Ibs	1001-1500 Ibs	over 1500 Ibs
	Maximum Kilowatt-hours per pound of ice							
Water-cooled ice making heads	5.2	5.2	4.7	4.4		4.1	3.8	3.4
Water-cooled, self- contained unit	5.2	5.2	4.7	4.4		3.9	2.9	2.4
Air-cooled ice making heads	6.6	6.6	6.1	5.5		5.4	5.0	4.7
Air-cooled remote condensing unit	6.6	6.6	6.1	5.5		5.4	5.0	4.7
Air-cooled self-contained unit	6.6	6.6	6.1	5.5		5.4	4.5	4.0



Water; Heat & Management

Measure	Incentive Amount	Eligibility
Pre-rinse spray heads 0.6 gallons per minute	Installed at the customer's site at no charge.	Hot water applications only. Food service entities that use electricity or natural gas to heat water.
Aerators 0.5 GPM	Installed at the customer's site at no charge.	Available only where there are hot water applications for customers who use electricity or natural gas to heat water.
Natural Gas High- Efficiency Water Heaters and Boilers in Full-Service Restaurants	Water Heaters: \$4.71/MBH (1,000 Btu/hr) Boilers: \$6.11/MBH	PSE full-service restaurant customers receiving bundled natural gas service under rate schedule 31, 36 or 41 with water heaters or boilers, having a greater than or equal to 92% efficiency factor, whose load includes a commercial dishwasher.
Natural gas hot water boilers serving Commercial laundries or multifamily laundry rooms	\$6.00/MBH	The installed hot water supply boiler shall have a minimum annual fuel utilization efficiency (AFUE) of 92% as tested in accordance with the Hydronics Institute Division of GAMA Testing Standard BTS-2000.
Natural gas hot water heaters serving Commercial laundries or multifamily laundry rooms	\$3.00/MBH	The installed water heater shall have a minimum thermal efficiency of 94% as tested in accordance with ANSI Z21.10.3 Gas Water Heaters – Volume III, Storage Water Heaters With Input Ratings Above 75,000 Btu Per Hour, Circulating and Instantaneous.

Small Business Direct-Install Program

Eligibility

Electric customers with an estimated or actual Demand of 50 kilowatts or less monthly Commercial & farm general service electric customers intended for rate Schedules 24 and 08 facilities. Multifamily related businesses will be referred to the Multifamily program. In addition, grocery and convenience store customers will be serviced under the Energy Smart Grocer (ESG) program.





Measures

Measures installed under this program are delivered to customers by a third party contractor and/or a PSE employee. Equipment used in the Small Business Direct-Install program must meet requirements as identified in the following table. Measure categories include, but are not limited to those in the following tables:





Electric Measures	Eligibility
Lighting Occupancy Sensors (Wall Mounted)	Must allow for both infrared (IR) and sonic detection
Photocell	Outside fixtures must currently operate 24 hours per day; 100W to 199W
Bi-Level Light Fixture	Complete, new fluorescent CEE listed fixtures with passive infrared and/or ultrasonic occupancy sensor
LED Exit Sign	Input power demand 5 Watts or less per sign. Manufacturer warranty for defects in materials and manufacturing for 5 years from date of purchase.
LED OPEN Sign Replacing Neon OPEN Sign	New, complete LED fixtures with efficiency (lumens/Watt) of >80%.
4' T8 28W (LBF)	CEE listed 28 Watt lamps; LBF ballasts
4' T8 28W (LBF) (delamp)	CEE listed 28 Watt lamps; LBF ballasts
New Restroom Fixture T8 17W (NBF)	Minimum lamp CRI ≥ 82, color temperature of 3500 to 4100 K. Ballasts to be CEE Listed.
New Restroom Fixture T8 25W (NBF)	Minimum lamp CRI ≥ 82, color temperature of 3500 to 4100 K. Ballasts to be CEE listed
100W Ceramic Metal Halide	Must have > 25% input wattage reduction.
175W Pulse Start Metal Halide	Must have > 25% input wattage reduction.
4' 6L T8 (HBF)	Fluorescent lamps and ballasts must be CEE listed
Electronic High intensity Discharge (e-HID)	Must have > 25% input wattage reduction.
CFL Screw-in lamps (replacing incandescents)	Must be Energy Star qualified and listed.
LED Screw-in lamps (replacing incandescents)	ENERGY STAR® or DLC qualified.
LED Refrigerated Case Lighting	Must consume between 4.0 and 7.5 W of electricity per lineal foot and listed on either the Lighting Design Laboratory or the Design Lights Consortium qualified lists for linear LED lamps. Fixtures must be hardwired.
Suction Line Insulation for Walk-In Units	Applies to low- and medium-temperature refrigeration systems. This measure applies to exposed suction lines in small walk-in refrigeration systems.
Shaded Pole to ECM refrigeration motors	Refrigerated display case and walk-in box shaded pole motors must be replaced by electronically commutated motors (ECMs).
Walk-in Strip Curtains	Must be nominally 4" to 8" W x .080" thick and clear enough to allow for see-through visibility.
Refrigeration Door Gaskets	Must replace a worn or damaged gasket. Replacement gaskets must meet the manufacturer's specifications.





SBDI Electric Measures, Continued

Electric Measures	Eligibility		
Hot Water Tank Insulation - Electric Heaters	2" of fiberglass insulation with a nominal R-value of 6.8 must be added to existing bare DHW storage tanks.		
Hot Water Pipe Insulation - Electric Heaters	1" of foam insulation with a nominal R-value of 6.57 must be added to existing bare copper DHW pipe systems.		
Aerators - electrically heated	Rated at 0.5 gpm to be installed in hot water applications only. For customers who use electricity to heat water.		
Pre-rinse sprayers - electrically heated	Rated at 0.6 gpm to be installed in hot water applications only. Food service entities that use electricity to heat water.		
Super Low Flow Showerheads - electrically heated	1.5 GPM showerhead to replace a typical 2.5 GPM showerhead.		
Programmable Thermostat - Electric	 Must replace a non-programmable thermostat. Must be able to maintain settings during power failure. Must allow seven-day programming, temporary manual override and manual selection for fan operation. If an economizer is present, thermostat cooling stages must equal the number of compressors in the system plus one. If an economizer is present, the first stage of cooling is always the economizer. Set the economizer changeover temperature to 65 °F (typically set elsewhere). Retain at least a 1.5 °F differential between the first and second cooling stages. 		





SBDI Natural Gas Measures

Gas Measures	Eligibility
Pre-rinse sprayers - gas heated HW	Rated at 0.6 gpm to be installed in hot water applications only. Food service entities that use gas to heat water.
Aerator - gas heated HW	Rated at 0.5 gpm to be installed in hot water applications only. For customers who use gas to heat water.
Super Low Flow Showerhead - gas heated HW	1.5 GPM showerhead to replace a typical 2.5 GPM showerhead.
Hot Water Tank Insulation - Gas Heaters	2" of fiberglass insulation with a nominal R-value of 6.8 must be added to existing bare DHW storage tanks.
Hot Water Pipe Insulation - Gas Heaters	1" of foam insulation with a nominal R-value of 6.57 must be added to existing bare copper DHW pipe systems.
Boiler Clean/Tune - Laundry Dry Cleaners	 Tube cleaning: mineral deposits removed from the inside of boiler tubes. Burner cleaning - removal of soot and build up. Hot water line insulation to reduce heat loss. Boiler tune-up: provide for an optimum air-fuel ratio.
Programmable Thermostat - Gas	 Must be a seven day programmable thermostat plus: 1) Must replace a non-programmable thermostat. 2) Must be able to maintain settings during power failure. 3) Must allow seven-day programming, temporary manual override and manual selection for fan operation.

Incentives

Most measures are installed at the customer's site at no charge to the customer. Some measures may require a co-pay by the customer. Incentives are paid to the contractor, and are not intended to be a direct-to-customer rebate.





REGIONAL EFFICIENCY PROGRAMS

Northwest Energy Efficiency Alliance (NEEA)

Schedule 254 (Electric only)

The majority of NEEA programs, measures and initiatives are intended to influence the marketplace as a whole are rarely are targeted to consumers. Rather, NEEA intends to influence utilities, manufacturers, distributors, retailers, builders, property management firms,

Whether directly (in the case of ductless heat pumps (listed on page 19 of this document) or indirectly (in the case of consumer product incentives for retailers), NEEA sponsors programs and initiatives including but not limited to the following categories:

Residential

New Home Construction Consumer Products Lighting Appliances

Commercial

Energy-efficient design Appliance Controls Energy Management Energy Codes and Standards

Industrial

Energy Management Regional Technical Solutions Sector-wide efficiency Initiatives

Emerging Technologies Residential HVAC Regional Collaboration among Utilities





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OTHER ELECTRIC PROGRAMS

Renewable Energy Education

Schedule 248 (Electric only)

Eligibility

Any customer with a Premises receiving service under Electric Tariff G of the Company and

- a. Who generates electricity using solar or wind energy or biogas from animal waste as a fuel and meets the terms of both Schedule 150 and Schedule 151 of this tariff is eligible for Incentives under this schedule, or
- b. Is a non-residential customer who has been selected and awarded a grant under this schedule.

Renewables Generating Grants

The Company may, at its discretion, award grants, provide remuneration or otherwise fund eligible small-scale (1-2 kilowatt generating capacity), school- based renewable energy projects. The Company plans to award multiple grants each year.

Primary selection criteria for grant approval include, but are not limited to:

- Educational benefit: The project should demonstrate renewable energy generating technology that facilitates student learning, understanding and acceptance of renewable energy resources,
- Geographic diversity: Project grants will consider the proximity to existing or planned demonstration projects funded by a grant within the Company's service territory,
- Energy efficiency: The school must demonstrate a commitment to energy efficient practices including, but not limited to, utilizing an on-staff Conservation Resource Manager,
- Broad support: The project must be championed by at least one teacher at the school and include the support of the administration and governing board.
- Project characteristics: the technology utilized, size and other characteristics of the generating project will be considered.





Net Metering

Schedule 150 (Electric only)

Eligibility

Customer-Generators who operate fuel cells or produce electricity and used and useful thermal energy from a common fuel source or who generate electricity using hydroelectric, solar, or wind energy or biogas from animal waste as fuel, with a total capacity of no more than 100 kilowatts (kW) and the generation is located on their own premises. Such generator must operate in parallel with PSE's transmission and distribution facilities. Detailed availability is outlined in PSE's Schedule 150.





Renewable Energy Advantage Program

Schedule 150 & 151 (Electric only)

Eligibility

Customer-Generators who receive electric service from the Company and operate a qualifying Generation System on their Premises. Where the Generation System will be interconnected with the Company's distribution system such interconnection shall be under the provisions of a separate interconnection (net metering) agreement. If the Generation System is interconnected with the Company's transmission or distribution system, service under this schedule is not available except during the effectiveness of an interconnection agreement between the Customer-Generator and the Company.

The Customer-Generator must own the real property on which the Generation System is located.

Generation Systems that operate on real property where the Company provides Electric Service, but the Generation System is not interconnected to the Company's distribution system are also eligible. Generation Systems installed on real property that are not and will never be served by the Company are not eligible for service under this schedule.

Detailed eligibility requirements are enumerated in PSE's Schedule 151.

Annual Payments

Customer-Generated Power	Base Rate	Payment Factor	Price per kWh
Solar modules and inverter manufactured in Washington state	\$0.15	3.6	\$0.54
Solar modules manufactured in Washington state	\$0.15	2.4	\$0.36
Solar or wind generating equipment with an inverter manufactured in Washington state	\$0.15	1.2	\$0.18
Anaerobic digester or other solar equipment without components manufactured in Washington state	\$0.15	1	\$0.15
Wind generator equipped with blades manufactured in Washington state	\$0.15	1	\$0.15
All other electricity produced by wind	\$0.15	0.8	\$0.12





Incentive payments will be made once annually and are computed using the price per kWh from the above table, multiplied by the total kWh generated during the payment period. The payment period is from July 1 of one year through June 30 of the next year. Hybrid systems, such as a combination of solar and wind, will be paid at the lowest price per kWh, unless each distinct part of the system is separately metered.

If a Customer-Generator adds a new portion to the existing system (For instance, a new 1 kW array of solar panels manufactured in Washington), the lower payment factor will apply, unless the new portion of the system is separately metered.





MEASURE LIFE CALCULATIONS

Residential Programs

Measure/Incentive/Initiative **Maximum Measure** Life. Years Boilers, Energy Star® 20 CFL Lamp, Energy Star® gualified, any exterior application 4 CFL Fixture Energy Star® gualified, any exterior or interior application 15 CFL Lamp, Energy Star® any interior application 5 Clothes Washers, Energy Star® 14 Compact Fluorescent Light (CFL) Bulb Energy Star® gualified, any interior 5 application Dishwashers, Energy Star® 9 Duct leakage testing and duct sealing 20 Duct Sealing 20 Freezers 20 Fireplace, High Efficiency, Natural Gas 25 Fuel Conversion—Space and Water Heat 30 Furnace, Energy Star® Natural Gas 18 Heat Pump – ductless using inverter technology 20 Heat Pump – Energy Star® qualified (air-source, split systems) 18 Heat Pump – Geothermal, Energy Star® 30 Heat pump replacement for an electric furnace 18 HomePrint Audit 3 Insulation, Attic (R-11 or less to R-38) 30 Insulation, Duct (R-0 to R-11) 30 Insulation, Floor (R-11 or less to minimum R-19, up to R-30) 30 Insulation, Wall (R-0 to R-13) 30 Light socket, CFL conversion assembly 15 Manufactured Home, Energy Star® certified 30 Multifamily Lighting measures (including lighting reduction) 12 Powerful Choices for the Environment, Electric and Natural Gas 8 **Refrigerator Decommissioning** 6 Refrigerator, Energy Star® 22 **Replacement Doors** 30 Showerheads, Energy Efficient Residential in Multifamily units 6 Showerheads, Energy Efficient Residential all dwelling types 10




Residential Programs, continued

Measure/Incentive/Initiative	Maximum Measure Life, Years	
Waste Water Heat Recovery	30	
Water Heater Pipe Insulation (Minimum 3 feet)	15	
Water heater, Natural Gas, Energy Star®	12	
Water Heater, Tankless, Natural Gas, Energy Star®	20	
Water Heater, Heat Pump Water Heater, Energy Star®	15	
Water Heater, High Efficiency, Electric Storage	13	
Windows- Single pane upgrade to class 33 or greater ⁵	30	
Whole house ventilation	15	



⁵ Windows will be funded only when bundled with other qualifying weatherization Measures.



Low Income Weatherization Program Specific Measure Life

Unless otherwise noted in the below table, all measure life figures in the above table apply to the Company's Low Income Weatherization program.

Programmable Thermostat, Low Income Weatherization	15
Refrigerator Replacement (also known as "decommissioning" or	
"early retirement")	6
Structure Sealing	25
Tapered Ridge Board, R-05 max to R-38 min	30
Water Heater Insulation	12





Commercial and Industrial Programs

Measure/Incentive/Initiative	Maximum Measure Life, Years
Building Thermal Improvements:	
Duct Insulation	15
Exterior Roof Insulation	15
Insulated Windows	30
Roof and Ceiling Insulation	24
Wall Insulation	24
Commissioning and Optimization:	
Commissioning/Optimization of Energy Systems	5
Controls:	
HVAC Controls and Energy Management Systems	10
Lighting Control Systems	10
PC Power Management	4
Process and Other Efficiency Control Systems	10
Cooler Controller	10
HVAC and Refrigeration:	
Boilers—Steam	30
BoilersHot water	24
Chillers	20
Economizers	10
Evaporative assist cooling for HVAC equipment	15
Heat Recovery Systems	15
High Efficiency HVAC Retrofit Applications	15
HVAC – central	15
Premium HVAC Service	5
HVAC – unitary	15
Lighting Improvements:	
Compact Fluorescent Luminaires	12
Fluorescent Luminaires	12
HID Luminaires	12
LED Exit Signs	12
LED Luminaires	12
LED Street Lighting	20
Locking Screw-in CFL	12
Low Wattage T8 Lamps	6
Integral Ballasted LED Lamps	5
Ceramic Metal Halide Lamps	5
Screw-in CFL	3





Commercial and Industrial Programs, continued

Measure/Incentive/Initiative	Maximum Measure Life, Years
New Construction Whole Building Analysis	
Energy Model Whole Building Approach	15
Process Efficiency Improvements:	
Fan, Compressor and Pump Systems or Station	ıs 15
Motor and Drive Systems	15
Process Optimization	5
Other Process Modifications	15
Reciprocating Engines	15
Refrigeration Systems	15
Restaurant/Kitchen Equipment:	
Connectionless Steamer	10
Deep Fat Fryer	8
Dishwashers	
Conveyor type	20
Door type	15
Under counter	10
Hot Food Holding Cabinet	12
Pre-Rinse Spray Heads	5
Water Heating Improvements:	
Low Flow Devices	10
Piping Insulation	15
Water Heaters	7
Other:	
Clothes Washers, Multifamily, High-use	8
Transformers	15
Green Motor Rewinds	10
Ice Makers	12
Resource Conservation Manager (Behavioral)	3
Voltage Optimization	15





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GLOSSARY OF ACRONYMS

AFUE	Annual Fuel Utilization Efficiency (standard federal efficiency rating)
AHU	Air Handling Unit
AIA	American Institute of Architect
ANSI	American National Standards Institute
ASHRAE	American Society of Heating, Refrigerating, and Air- Conditioning Engineers
BOMA	Building Owners and Managers Association
BPA	Bonneville Power Administration
CEE	Consortium for Energy Efficiency
CMS	Customer Management System
CRAG	Conservation Resource Advisory Group
DCV	Demand Control Ventilation
DDC	Design Development and Construction
Direct Install Measure	A conservation measure that is installed by a PSE representative—rather than a PSE customer—into a qualifying structure.
ECM	Electronically Commutated Motor
CS	Customer Solutions. A division within PSE whose charter is to provide outstanding customer service in achieving all available, feasible, and cost-effective conservation within the PSE service territory.
EF	Energy Factor
EUI	Energy Usage Index
FSTC	Food Service Technology Center
FTE	Full Time Equivalent (applicable to staffing levels, etc.)
GPM	Gallons Per Minute





Acronyms, Continued

HID	High Intensity Discharge (applies to Lighting measures)
HSPF	Heating Seasonal Performance Factor
HVAC	Heating, Ventilation and Air Conditioning
IPLV	Integrated Part Load Value
kWh	Kilowatt Hour
MEF	Manufacturers Efficiency Factor
NEMA	National Electrical Manufacturers Association
O&M	Operations and Maintenance
ODP	Open Drip-Proof (motors)
PTCS	Performance Tested Comfort Systems
PTHP	Package Terminal Heat Pump
SEER	Seasonal Energy Efficiency Ratio
SPIFF	A colloquialism, representing an incentive paid to a salesperson for selling a specific product. Also referred to as SPIV or SPIF. SPIF is not actually an acronym, as (in most cases) it doesn't have directly-correlating words (such as "Sales Person Incentive??").
TEFC	Totally Enclosed, Fan-Cooled (motors)
TRC	Total Resource Cost
UC	Utility Cost
ULI	Urban Land Institute
USGBC	U.S. Green Building Council
UL	Underwriters' Laboratory
VAV	Variable Air Volume
VFD	Variable Frequency Drive
WAMOA	Washington Association of Maintenance and Operations Administrators
WF	Water Factor: a measure of water consumption. A higher number, representing lower efficiency, is less desirable.
WSEC	Washington State Energy Code

