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May 13, 2016

# VIA ELECTRONIC FILING AND OVERNIGHT DELIVERY

Steven V. King Executive Director and Secretary Washington Utilities and Transportation Commission 1300 S. Evergreen Park Drive SW P.O. Box 47250 Olympia, WA 98504-7250

## RE: Docket UE-132047—Revisions to PacifiCorp's Demand-Side Management Business Plan for the 2014-2015 Biennium

Pacific Power & Light Company (Pacific Power or Company), a division of PacifiCorp, submits this revised Demand-Side Management (DSM) Business Plan with the Washington Utilities and Transportation Commission in compliance with Order 01 in this docket. The DSM Business Plan was provided as Appendix 7 in the Ten-Year Achievable Conservation Potential and Biennial Conservation Target for 2014 and 2015 filed on November 1, 2013, and previously updated with the Commission on March 18, 2014, and October 31, 2014.

On August 26, 2015, the Company provided another update to its DSM Business Plan to the Washington DSM Advisory Group for review. No comments were provided according to the Company's records. It was recently discovered that the Company inadvertently did not file that updated DSM Business Plan with the Commission. The enclosed revised DSM Business Plan reflects updated savings and costs for 2014, revises the refrigerator recycling program for retailer pick-ups, revises program details for the wattsmart Business program to reflect changes made in 2015, and revises the Home Energy Report evaluation schedules. This update of the DSM Business Plan is specific to the past (2014-2015) biennial period and has been superceded by the 2016-2017 plan filed on October 30, 2015. The Company is providing this final update for 2014-2015 in compliance with Order 01 and to complete the Commission's records for the 2014-2015 biennium.

If you have any informal inquiries, please contact Ariel Son at (503) 813-5410.

Sincerely,

R. Bryce Dalley /AS R. Bryce Dalley Vice President, Regulation

Enclosures

# Demand-side Management 2014-2015 Business Plan -Washington

Revision 4 - September, 2015





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# **Executive Summary**

As required by Order 03 of Docket UE-111880 (amending Order 01 in the same docket), dated April 25, 2013, Pacific Power and Light Company ("Pacific Power" or the "Company") filed a Biennial Conservation Plan November 1, 2013.

In compliance with the Commission's direction (Order 01 of Docket UE-132047 Condition List Item 5) to include revised program details and program tariffs as part of the Company's Biennial Conservation Plan, the Company filed the first revision to Demand-side Management 2014-2015 Business Plan (the "Business Plan") on March 18, 2014, to amend filed information on the Home Energy Savings program and consolidate the Company's business programs and a second revision (advice letter form) on August 20, 2014, to extend and expand the Home Energy Reports program. A third revision was filed November 1, 2014, providing updated savings projections and budgets by program for 2014 and 2015 and updating the Business Plan with information provided in the August 20, 2014 advice letter filing to expand the Home Energy Reports program.

Pursuant to the Commission's direction to include revised program details as required by Order 01 of Docket UE-132047 Condition List Item 8, dated December 19, 2013, the Company is providing this fourth revision to the Business Plan for 2014-2015. This fourth revision reflects the following changes and updates:

- Updates the Company's savings and cost data reflecting actual 2014 results as filed in the Company's Washington Annual Report on Conservaton Acquisition January 1, 2014 – December 31, 2014 (May 8, 2015 corrected version) and revised 2015 forecasts consistent with the Company's June 1, 2015, Schedule 191 Systems Benefits Charge Adjustment.
- 2) Revises Business Plan update and tariff sections for the Refrigeration Recycling program to reflect the addition of retailer pick-ups to the program filed November 26, 2014, and approved by the Commission effective January 1, 2015.
- 3) Revises program details for wattsmart Business (Schedule 140) to reflect the changes provided for advisory group comment on March 11, 2015, noticed on the Company's website April 17, 2015, and that were effective June 1, 2015, following the mandatory 45 days noticing period<sup>1</sup>.
- 4) Revises the Home Energy Report Legacy and Expansion evaluation schedules to coincide with each other and support ex-post reporting of calendar year 2014 and 2015 results in the June 1, 2016, 2014/2015 Biennial Conservation Report.

The Business Plan also includes a section for each DSM program with the following information:

- Program, initiative and/or project descriptions
- Description of planned program changes
- Program evaluation update<sup>2</sup>
- Program details including specific measures, incentives, and eligibility requirements

<sup>&</sup>lt;sup>1</sup> See wattsmart Business secton for details on June 1, 2015, program changes.

<sup>&</sup>lt;sup>2</sup> Final evaluation reports are available on the Company's website at: http://www.pacificorp.com/es/dsm/washington.html.

# 2014-2015 Budget and Savings by Program

Table 1 below provides the projected savings and expenditures by program, initiative, and sector to achieve the 74,703 MWh (including line losses) biennial conservation target ("BCT") for 2014 and 2015 described in the Company's 2014-2015 Biennial Conservation Plan, dated November 1, 2013 and approved by Washington Utilities and Transportation Commission on December 19, 2013. The "Total Pacific Power Conservation" row, which excludes costs and savings associated with Northwest Energy Efficiency Alliance (NEEA) initiatives, is directly comparable to the BCT noted above. As shown, the Company is projecting 96,877 MWh in savings over the biennial period, roughly thirty percent more than the BCT.

		2014 PacifiCorj	Washington Conse	ervation Pr	relm	inary Actuals	2015 P	acifiCorp Washing	ton Conser	vation Estimates	2014 +	2015
		Gross kWh/Yr	Gross kWh/Yr	aMW		Estimated	Gross kWh/Yr	Gross kWh/Yr	aMW		Gross MWh	Gross aMW
Program or Initiative	Note	Savings @site	Savings @gen	Savings		Expenditures	Savings @site	Savings @gen	Savings	Estimated Expenditures	Savings @gen	Savings @gen
Low Income Weatherization (114)	1	156,456	171,585	0.02	\$	698,964	150,000	164,505	0.02	\$ 800,000	336	0.04
Refrigerator Recycling (107)	2	667,926	732,514	0.08	\$	173,384	750,000	822,525	0.09	\$ 220,000	1,555	0.18
Home Energy Savings (118)	3	12,757,968	13,991,664	1.60	\$	2,243,020	11,877,460	13,026,010	1.49	\$ 2,634,731	27,018	3.08
Home Energy Reports (N/A)	4	4,670,171	5,121,777	0.58	\$	274,248	7,598,250	8,333,001	0.95	\$ 478,288	13,455	1.54
Total Residential Programs		18,252,521	20,017,540	2.29	\$	3,389,616	20,375,710	22,346,041	2.55	\$ 4,133,019	42,364	4.84
wattSmart Business (140) - Commercial		9,405,487	10,301,924	1.18	\$	2,112,321	11,640,055	12,749,468	1.46	\$ 2,872,355	23,051	2.63
wattSmart Business (140) - Industrial		15,688,384	16,968,713	1.94	\$	3,529,949	12,370,955	13,380,549	1.53	\$ 3,133,060	30,349	3.46
wattSmart Business (140) - Agricultural		878,483	963,432	0.11	\$	149,041	135,990	149,140	0.02	\$ 34,441	1,113	0.13
Total Business Programs		25,972,354	28,234,069	3.22	\$	5,791,311	24,147,000	26,279,158	3.00	\$ 6,039,856	54,513	6.22
Production efficiency	5	17,800	17,800	0.002	\$	2,064	3,200	3,200	0.0004	\$ 2,323	21	0.002
Northwest Energy Efficiency Alliance	6	6,400,566	7,015,950	0.80	\$	1,174,914	3,898,000	4,271,276	0.49	\$ 839,334	11,287	1.29
Total Other Conservation Initiatives		6,418,366	7,033,750	0.80	\$	1,176,978	3,901,200	4,274,476	0.49	\$ 841,657	11,308	1.29
Be wattsmart, Begin at Home		-	-	-	\$	58,260	-	-	-	\$ 62,627	-	-
Customer outreach/communication		-	-	-	\$	249,791	-	-	-	\$ 250,000	-	-
Program Evaluations	7	-	-	-	\$	786,875	-	-	-	\$ 444,655	-	-
Potential study update/analysis	8	-	-	-	\$	57,029	-	-	-	\$ 75,000	-	-
Measure data documentation (DSMC & TRL)	9	-	-	-	\$	57,733	-	-	-	\$ 57,000	-	-
Admin. of prior programs	10	-	-	-	\$	-	-	-	-	\$ -	-	-
Total Portfolio-Level Expenses		-	-	-	\$	1,209,688		-	-	\$ 889,282	-	-
Total PacifiCorp Conservation	11	44,242,675	48,269,409	5.51	\$	10,392,679	44,525,910	48,628,399	5.55	\$ 11,064,480	96,898	11.06
Total System Benefit Charge	12	50,625,441	55,267,559	6.31	\$	11,565,529	48,420,710	52,896,474	6.04	\$ 11,901,491	108,164	12.35
Total Conservation		50,643,241	55,285,359	6.31	\$	11,567,593	48,423,910	52,899,674	6.04	\$ 11,903,814	108,185	12.35

Table 12014 - 2015 Biennial Target Savings and Budget Projections by Program

#### Notes:

- 1. Low income forecasts for 2014 and 2015 are based on forecasts from the community action agencies. The perhome savings are from the 2009-2011 program evaluation and are lower than those used in the 2012-2013 biennial period. The Company maintains \$1 million annually available for matching commitments.
- 2. Refrigeration recycling unit energy savings by appliance type (refrigerators and freezers) have been adjusted for the 2014-2015 reporting period based on new information from the program's 2011-2012 Washington impact evaluation using RTF methodology (as modified in December 2012). Updated unit savings values are lower than those used in the 2013 Conservation Potential Assessment and for savings reporting in the 2012-2013 biennium, both of which came from the 2009-2010 program evaluation. The adjustment is further explained in "Appendix 4, Additional Detail – Forecast Adjustments" to the Company's Biennial Conservation Plan.
- 3. The forecast for Home Energy Savings includes the impacts of adjustments for updated cost and savings information for certain appliances, lighting, building shell and HVAC measures. Updated information becomes available as the RTF updates deemed measures, Pacific Power program evaluations are completed and changes to the Washington State Energy Code (WSEC) take effect. Updates are further explained in "Appendix 4, Additional Detail Forecast Adjustments" to the Company's Biennial Conservation Plan.
- 4. Forecasted savings for the extended and expanded Home Energy Reports program are reduced by the amount of savings estimated to be attributable to capital measures counted in other Company programs.
- 5. Expenditures on production efficiency will be recovered through a general rate case rather than through the System Benefit Charge, as specified in section 11(d) of Order 01 in docket UE-132047.
- 6. Includes both Pacific Power's direct funding of NEEA and the Company's internal management costs. NEEA 2014 expenditures are based on Pacific Power's actual costs as invoiced by NEEA. NEEA's 2015 expenditures are based on Pacific Power's regional share (based on ratios of sales and customer counts) of the budget (from the 2015-2019 Business and Strategic Plan approved June 20, 2014). Preliminary 2014 savings were provided by NEEA and align with savings provided in 2014 annual report and utilize technical assumptions used to provide the original forecast. 2015 savings are based on Pacific Power's regional share from NEEA's 2015-2019 Business and Strategic Plan approved June 20, 2014. See the Biennial (2014-2015) Conservation Target section of the Biennial Conservation Plan for Pacific Power treatment of NEEA savings consistent with the order received in docket UE-100170.
- 7. For detail on the planned evaluations, see the program detail sections in this Business Plan.
- 8. Potential study update and analysis costs for 2014 represent residual study costs necessary to prepare for the 2016-2025 ten-year conservation forecast and 2016-2017 biennial target, 2015 cost forecast is for year one work to inform the 2018-2019 biennium work. These costs are subject to change as new requirements become effective. Per Pacific Power's Evaluation, Measurement & Verification (EM&V) framework, these costs are not included in program- or portfolio-level cost-effectiveness analysis.
- 9. Technical Reference Library (TRL) costs are the costs necessary for on-going maintenance and updates to the system. Per Pacific Power's EM&V framework, these costs are not included in program- or portfolio-level cost-effectiveness analysis.
- 10. Residual administration related to prior program expense represents the ongoing management of conservation loans associated with legacy programs i.e. Energy FinAnswer, Home Comfort, etc.
- 11. Excludes costs and savings associated with NEEA initiatives. Savings in this row are directly comparable to the Company's Biennial Conservation Target.
- 12. Excludes costs and savings associated with production efficiency, as those costs will be recovered through a general rate case, rather than the SBC, as specified in section 11(d) of Order 01 in docket UE-111880.

	Business Plan Update Nov 1 2014	Business Plan Update Sept 2015	
	2014-2015	2014-2015	Variance
Program or Initiative	Gross	MWh Savings @ gen	
Low Income Weatherization (114)	330	336	6
Refrigerator Recycling (107)	1,688	1,555	(133)
Home Energy Savings (118)	24,218	27,018	2,800
Home Energy Reports (N/A)	17,293	13,455	(3,838)
Total Residential Programs	43,529	42,364	(1,165)
wattsmart Business (140) - Commercial	23,799	23,051	(748)
wattsmart Business (140) - Industrial	25,467	30,349	4,882
wattsmart Business (140) - Agricultural	291	1,113	822
Total Business Programs	49,557	54,513	4,956
Production Efficiency	16	21	5
Northwest Energy Efficiency Alliance	14,313	11,287	(3,026)
Total Other Conservation Initiatives	14,329	11,308	(3,021)
Total PacifiCorp Conservation	93,102	96,898	3,796
Total System Benefit Charge Conservation	107,399	108,164	765
Total Conservation	107,415	108,185	770

 Table 2

 November 2014 Business Plan Savings Forecast compared to Current Forecast

# Notable DSM Business Plan Savings Changes

Highlights of notable change from the savings projections included in the third Business Plan revision filed on November 1, 2014 include:

- 2014 Savings Reported program savings results provided in the 2014 annual report were nearly 18 percent greater than those provided in the November 1, 2014 Business Plan forecast.
- <u>Refrigerator Recycling</u> decreased forecast based on 2014 year-end results and program implementation contractor revised forecast for 2015.
- <u>Home Energy Reports</u> decreased savings based on 2014 year-end results, current performance of Expansion results, and July 2015 program implementation contractor revised forecast for 2015.
- <u>wattsmart Business</u> increased forecast in commercial sector for 2015 to reflect addition of mid-stream lighting activity.

- <u>Northwest Energy Efficiency Alliance</u> (NEEA) decreased savings to align 2015 projected savings with revised information provided by NEEA and additional detail in NEEA's 2015-2019 Business and Strategic Plans, approved June 20, 2014. NEEA 2014 results remain preliminary in this Business Plan revision however results for 2014 and 2015 will be finalized prior to the Company's June 1, 2016, 2014/2015 Biennial Conservation Report filing.
- <u>Production efficiency</u> 2014 and 2015 savings reflect Washington's share of completed Hermiston plant HVAC, compressed air and lighting projects..

## Table 3

	Business Plan Up	pdate		ness Plan Update	
	Nov 1 2014 2014-2015			Sept 2015 2014-2015	Variance
Program or Initiative		Es	timated	Expenditures	
Low Income Weatherization (114)	\$ 1,80	00,000	\$	1,498,964	\$ (301,036)
Refrigerator Recycling (107)	\$ 47	70,633	\$	393,384	\$ (77,249)
Home Energy Savings (118)	\$ 4,40	00,806	\$	4,877,751	\$ 476,945
Home Energy Reports (N/A)	\$ 77	76,524	\$	752,536	\$ (23,988)
Total Residential Programs	\$ 7,44	47,963	\$	7,522,635	\$ 74,672
wattSmart Business (140) - Commercial	\$ 5,20	08,810	\$	4,984,676	\$ (224,134)
wattSmart Business (140) - Industrial	\$ 5,6	17,241	\$	6,663,009	\$ 1,045,768
wattSmart Business (140) - Agricultural	\$ (	63,533	\$	183,482	\$ 119,949
Total Business Programs	\$ 10,88	89,584	\$	11,831,167	\$ 941,583
Production efficiency	\$	2,947	\$	4,387	\$ 1,440
Northwest Energy Efficiency Alliance	\$ 2,13	31,177	\$	2,014,248	\$ (116,929)
Total Other Conservation Initiatives	\$ 2,1	34,124	\$	2,018,635	\$ (115,489)
Be wattsmart, Begin at Home	\$ 1	19,000	\$	120,887	\$ 1,887
Customer outreach/communication	\$ 50	00,000	\$	499,791	\$ (209)
Program Evaluations	\$ 1,03	35,814	\$	1,231,530	\$ 195,716
Potential study update/analysis	\$ 14	42,000	\$	132,029	\$ (9,971)
Measure data documentation	\$ 10	05,293	\$	114,733	\$ 9,440
Admin. of prior programs	\$	-	\$	-	\$ -
Total Portfolio-Level Expenses	\$ 1,9	02,107	\$	2,098,970	\$ 196,863
Total PacifiCorp Conservation	\$ 20,24	42,601	\$	21,457,159	\$ 1,214,558
Total System Benefit Charge Conserva	\$ 22,3	70,831	\$	23,467,020	\$ 1,096,189
Total Conservation	\$ 22,3	73,778	\$	23,471,407	\$ 1,097,629

#### November 2014 Business Plan Expenditure Forecast compared to Current Forecast

# Notable DSM Business Plan Budget Changes

Highlights of notable change from the budget projections included in the third Business Plan revision filed on November 1, 2014 include:

- 2014 Costs Reported program and portfolio costs<sup>3</sup> provided in the 2014 annual report were up 7 percent from those forecasted in the November 1, 2014 Business Plan update.
- <u>Low Income Weatherization</u> decrease in 2015 funding forecast reflects increase in state funding following the 2015 legislative session.
- <u>Refrigerator Recycling decrease in funding reflects 2014 actual results and revised program</u> implementation contractor <u>forecast.</u>
- <u>Home Energy Savings</u> increase in 2015 forecast to fund new lighting incentives.
- <u>wattsmart Business increase in 2015 forecast to fund new mid-stream lighting incentives.</u>
- <u>Northwest Energy Efficeincy Alliance (NEEA)</u> decrease in 2015 forecast to align Company's funding commitment to NEEA's 2015 budget forecast in their 2015-2019 Business and Strategic Plans approved June 20, 2014.
- <u>Program Evaluations</u> increase in program evaluation costs due to rollover of 2014 business program evaluation work/costs into 2015 and omission of savings verification costs in November 2014 forecast.
- <u>Production Efficiency</u> cost forecast represents Washington's allocation of completed Hermiston plant HVAC, compressed air and lighting projects. No additional costs anticipated for remainder of 2015

<sup>&</sup>lt;sup>3</sup> Including NEEA and Production Efficiency.

# **Residential Program Details**

The Company's residential programs in Washington include Refrigerator Recycling (Schedule 107), Home Energy Savings (Schedule 118), and Home Energy Reports.

## **Refrigerator Recycling (Schedule 107)**

## Years of Implementation

Pacific Power Electric Service Schedule No. 107 for the Residential Refrigerator Recycling Program was submitted under Advice Letter No. 05-004 on March 1, 2005. The program was originally approved with an effective date April 1, 2005.

## Program Description

This program, operating as the See ya later, refrigerator® program, aims to decrease residential and business refrigeration loads by reducing the number of inefficient secondary and primary refrigerator and freezer models in operation. With this program, the Company offers residential and business customers and qualified retailers in Washington with qualifying residential refrigerators the opportunity to receive an incentive (by check mailed within 30 days after collection of the unit to be recycled) in exchange for turning in old but working refrigerators and/or freezers for recycling. Each retail customer can recycle up to two units, refrigerators and/or freezers, per household per year. In addition, a kit with instant energy-saving measures is provided to each participating residential customer. Customers can schedule a free pick-up online at:

https://www.pacificpower.net/res/sem/washington/roa.html

## Program Updates

The program was expanded in January 2015 to expand collection of qualifying residential refrigerators and freezers to retailers. Known as secondary market intervention (SMI), the program now collects working units picked-up by retailers to remove them from the secondary market. The secondary market for refrigerators and freezers refers to units collected by retailers which are then resold through the retailer or sold to appliance retailers specializing in selling used appliances.

## Planned Program Changes

The Company will review evaluations findings and monitor appliance recycling cost-effectiveness to determine if there are revisions that will improve participation or program results.

Evaluation Update Last Evaluation Report: Program Years 2011-2012

Future Evaluation Report(s): Program Years 2013-2014 **Evaluation Report Date** October 23, 2013

**Evaluation Report Date** By Year-end 2015 **Completed by** The Cadmus Group

To be Completed by The Cadmus Group Program Details

Details for this program are contained in the program tariff. Any changes to the details included in the program tariff must be filed and approved by the Commission prior to becoming effective.

WN U-75

Second Revision to Sheet No. 107.1 Canceling Firest Revision Sheet No. 107.1

#### Schedule 107 REFRIGERATOR RECYCLING PROGRAM SERVICE OPTIONAL FOR QUALIFYING CUSTOMERS

#### PURPOSE:

Service under this tariff is intended to reduce residential refrigeration loads through the removal and recycling of inefficient models.

#### AVAILABLE:

In all territory served by Pacific Power (Company) in the State of Washington.

#### APPLICABLE:

To customers, or property owners, landlords, property management companies and homeowner associations not listed as the primary account holder, in all service territory served by the Company in Washington.

#### **CUSTOMER PARTICIPATION:**

Customer participation is voluntary and is initiated by contacting a specified toll-free number or website.

#### **DESCRIPTION:**

Customers receive a \$30 incentive to discontinue use of their working second refrigerators and/or freezers or to replace their working primary refrigerators and freezers with new more efficient models. To qualify for the incentive, customers must give up their appliances for recycling. Appliances will be collected and recycled to ensure they are not resold on the secondary market. Company may offer a packet with written energy efficiency information, and instant savings measures. Participating retailers will receive an incentive of up to \$20 for each eligible refrigerator and/or freezer.

#### **QUALIFYING EQUIPMENT:**

Working residential refrigerators and freezers that are a minimum of 10 cubic feet and a maximum of 32 cubic feet in size, utilizing inside measurements.

#### PROVISIONS OF SERVICE:

Incentives will be available on a maximum of two appliances per qualifying customer per year. Incentive checks will be mailed within 30 days of the appliance collection date.

Company and/or Program Administrator may employ a variety of quality assurance techniques during the delivery of the program. Verification or evaluation may include, but is not limited to, telephone survey, site visit, billing analysis, and pre- and post-installation of monitoring equipment as necessary to quantify actual energy savings.

#### **RULES AND REGULATIONS:**

Service under this Schedule is subject to the General Rules and Regulations contained in the tariff of which this Schedule is a part, and to those prescribed by regulatory authorities.

**Issued:** November 26, 2014 **Advice No.** 14-07 Effective: January 1, 2015

**Issued By Pacific Power & Light Company** 

\_\_\_ R. Bryce Dalley By:

## Home Energy Savings (Schedule 118)

## Years of Implementation

Pacific Power Electric Service Schedule No. 118 for the Home Energy Savings Program was submitted under Advice Letter No. 06-004 on August 11, 2006. The program was initially approved with an effective date of September 14, 2006.

## Program Description

The program provides a broad framework to deliver incentives for more efficient products and services for Washington residential customers with a new or existing home, multi-family unit or manufactured home. A third party administrator hired by the Company delivers the savings and incentives of the program. Operating in tandem, Schedule 118 and the program website (http://www.homeenergysavings.net/Washington/washington home.html) inform customers and contractors of the offerings and qualifications for incentives.

Measures eligible for incentives include clothes washers, refrigerators, freezers, water heaters, heat pump water heaters, dishwashers, compact fluorescent lights ("CFL") and light emitting diode ("LED") lighting, lighting fixtures (CFL and LED), heating and cooling equipment, insulation and windows. The program offers mail-by request *watt*smart Starter Kits containing free CFLs and customers with electric water heat also receive a free showerhead and aerators. At a discounted cost, customers can pay to upgrade the kit to contain LEDs and a higher quality showerhead. In addition, the program includes a Builder Option Package as well as stand-alone measures for new homes.

Incentives are provided in three ways: post-purchase delivery to the customer for the majority of measures, through a retailer and/or manufacturer buy-down for CFLs, LEDs and fixtures, and direct installation of a measure where the program pays all of the measure and installation cost so there is no cost to the customer. Buy-downs result in lower retail prices for customers at the point of purchase as opposed to post-purchase incentives that customers must submit an application to receive.

Complete details on incentives and services are on the program website and in the tables and copy of the program tariff below.

## Program Updates

No program changes since the November 2014 Business Plan update.

## Planned Program Changes

Future changes including measure additions, deletions, and changes in qualifying standards will be based on cost-effectiveness, participation and evolving codes and standards.

Evaluation Update

Last Evaluation Report:			
Program Years			
2011-2012			

**Evaluation Report Date** January 20, 2014

**Completed by** The Cadmus Group Future Evaluation Report(s): Program Years 2013-2014

**Evaluation Report Date** By Year-end 2015 To be Completed by The Cadmus Group

## Program Details

General program details for this program are contained in the program tariff; additional program detail is available on the program website. Any changes to the details included in the program tariff must be filed and approved by the Commission prior to becoming effective. In addition, there are program details managed outside of the program tariff. The program tariff and the text below from the Advice Letter (Docket UE-061297), filed August 11, 2006, describe the information that is managed outside of the tariff and the process for changes.

The comprehensive nature of the program and changing equipment standards indicate a flexible and market-driven program delivery is required. The Company is proposing that Schedule 118 outline the basic program elements including customer eligibility, use of a program administrator for delivery, the seasonal nature of selected incentive offers, and that current incentive levels may change. Specific details such as incentive levels, eligible equipment specifications and dates for incentive availability would be managed by the program administrator using a dedicated program Web site with easy links from the Company web site.

Changes in equipment eligibility or minimum efficiency levels would be driven by program and market data. The Company and program administrator will be assessing program performance on an on-going basis and proposing changes at least once per year. Changes may be proposed more frequently if there is compelling market feedback that changes need to occur ahead of the annual changes. Similar to the filing process, the Company would present information on proposed changes to its Advisory Group and seek comments prior to making changes. Changes in equipment specifications or incentive levels would be clearly posted on the Web site and emailed to the appropriate Commission staff person with at least 45 days advance notice.

The incentive tables, program definitions and custom incentives offered are managed outside of the program tariff on the Company website via the process described above.

The following program information is contained either on the Company's website referenced above or in the program tariff as provided beginning on page 22:

## Washington Home Energy Savings

# **Definitions**

**British Thermal Unit (Btu):** It is approximately the amount of energy needed to heat 1 pound of water from 39° to 40° Fahrenheit.

**Compact Fluorescent Lamp (CFL):** Light bulbs that produce light much more efficiently than traditional incandescent light bulbs.

**Consortium for Energy Efficiency (CEE):** CEE is a consortium of US and Canadian gas and electric efficiency program administrators. Members work to unify program approaches across jurisdictions to increase the success of efficiency in markets. CEE members define one or more tiers of energy performance for a particular product or service. A specification is an advanced level of energy performance, higher than is normal in a market, for a residential, commercial, or industrial product or service.

**Cubic Feet per Minute (CFM):** A measurement of the velocity at which air flows into or out of a space.

**Customer:** Any party who has applied for, been accepted and receives service at the real property, or is the electricity user at the real property.

**Direct Install:** Installation of an Energy Efficiency Measure directly by the Company, Program, or a Program-approved contractor or other 3<sup>rd</sup> party.

**Downstream**: Payment of incentive made by the Company to a customer, owner, contractor or other approved third party for the purchase or installation of an Energy Efficiency Measure pursuant to an approved energy efficiency incentive application.

**Energy Efficiency Incentive:** Payments of money made by Company to Owner or Customer or other approved party for installation of an Energy Efficiency Measure pursuant to an approved Energy Efficiency Incentive Application.

**Energy Efficiency Measure (EEM):** A permanently installed measure which can improve the efficiency of the Customer's electric energy use.

**Energy Efficiency Ratio (EER):** The EER is the ratio of the cooling capacity Btu per hour to the power input (in watts). The higher the EER rating, the more efficient the air conditioner.

**Energy Factor (EF):** Indicates a water heater's overall energy efficiency based on the amount of hot water produced per unit of fuel consumed over a typical day. The higher the energy factor, the more efficient the water heater.

**Heating Seasonal Performance Factor (HSPF):** Is the efficiency of heat pumps measured by the ratio of Btu heat output over the heating season to watt-hours of electricity used. The higher the number, the greater the efficiency.

Heating, Ventilation and Air Conditioning (HVAC): Refers to technology of indoor environmental comfort.

Light-emitting Diode (LED): A semiconductor light source.

**Manual J:** Manual J, "Residential Load Calculation," published by the Air Conditioning Contractors of America (ACCA), is the recommended method for sizing heating and cooling systems for use in the United States.

**Manufactured Homes (mobile homes):** A type of prefabricated housing that is largely assembled in factories and transported to the site of use. Units are at least 320 square feet and installed with a permanent chassis to assure the initial and continued transportability of the home.

**Mid-Market:** An approved third party (typically a contractor, retailer or manufacturer) who installs Energy Efficiency Measures at the real property or sells Energy Efficiency Measures to a Customer.

**Modified Energy Factor (MEF):** Measures energy consumption of the total laundry cycle (washing and drying). It indicates how many cubic feet of laundry can be washed and dried with one kWh of electricity; the higher the number, the greater the efficiency.

New Home: A newly constructed residence.

**Owner:** The person who has both legal and beneficial title to the real property, and is the mortgager under a duly recorded mortgage of real property, the trustor under a duly recorded deed of trust.

**Prescriptive incentives:** Per unit incentives are listed in the program incentive tables for specific EEMs. Incentives are subject to change.

**RTF:** Regional Technical Forum

**R-Value:** Indicates insulation's resistance to heat flow. The higher the R-value, the greater the insulating effectiveness.

**Seasonal Energy Efficiency Ratio (SEER):** Is the efficiency of air conditioners measured by the cooling output in Btu during a typical cooling-season divided by the total electric energy input in watt-hours during the same period. The higher the unit's SEER rating the more energy efficient it is.

**Solar Heat Gain Coefficient (SHGC):** Measures the fraction of solar energy transmitted and tells how well the product blocks heat caused by sunlight. SHGC is measured on a scale of 0 to 1. The lower the SHGC, the less solar heat the window transmits.

**Thermal Expansion Valve (TXV):** Is a component in refrigeration and air conditioning systems that controls the amount of refrigerant flow into the evaporator thereby controlling the superheating at the outlet of the evaporator.

**U-Factor:** Measures the rate of heat transfer and indicates how well the window insulates. U-factor values generally range from 0.25 to 1.25 and are measured in Btu/h·ft<sup>2</sup>·°F. The lower the U-factor, the better the window insulates.

**Upstream**: Payment of incentive made by the Company directly to a manufacturer, retailer, or other pre-approved vendor to apply a pre-purchase discount for customers.

Water Factor (WF): Measures water efficiency in gallons of water consumed per cubic foot of capacity.

## **Incentives**

Measure	Qualifications	Customer Incentive	Mid-Market Incentive
Clothes Washers	$MEF \ge 3.2$	\$50	\$0
Clothes Washer Recycling	Decommission and recycle an existing clothes washer. The recycled unit must be operable.	\$0	Up to \$25
Refrigerators	CEE Tier 2 and above	\$35	\$0
Electric Water Heaters	25-44.9 gal units: $EF > 0.94$ 45-54.9 gal units: $EF > 0.95$ 55-74.9 gal units: $EF > 0.93$ 75-99.9 gal units: $EF > 0.92$ 100-120 gal units: $EF > 0.85$ Due to April 16, 2015 federal standard incentives will be provided only for units purchased or installed on or before April 15, 2015.	\$50	\$0
Evaporative Coolers (Tier 1)	2,000-3,499 CFM	\$50	\$0
Evaporative Coolers (Tier 2)	Minimum 3,500 CFM (must be the primary cooling source)	\$250	\$0
Room Air Conditioner	ENERGY STAR qualified	\$0	Up to \$20
Freezer	ENERGY STAR qualified	\$20	\$0
Heat Pump Water Heater	Northern Climate Specification qualified Due to April 16, 2015 federal standard units that do not meet the new standard will no longer be offered	Up to \$600	\$200

# Home Energy Savings Incentive Table

Measure	Qualifications	Customer Incentive	Mid-Market Incentive
	incentives after April 15, 2015.		
CFL Bulbs (General Purpose)	ENERGY STAR qualified	\$0	Up to \$1.50
CFL Bulbs (Specialty)	ENERGY STAR qualified	\$0	Up to \$3.00
LED Bulbs (General Purpose)	ENERGY STAR qualified	\$0	Up to \$10.00
LED Bulbs (Specialty)	ENERGY STAR qualified	\$0	Up to \$10.00
CFL and LED Fixtures	ENERGY STAR qualified. Torchiere and portable products are not qualified		\$10.00
Central Air Conditioner	<u>&gt;</u> 15 SEER	\$50	\$50
Central Air Conditioner Best Practice Installation and Sizing	$\geq$ 13 SEER Meet airflow/refrigerant requirements 350 CFM/ton of airflow Refrigerant charge within +/- 3 degrees of target subcooling. Equipment properly sized per program requirements	\$50	\$75
Heat Pump Performance Tested Comfort Systems, Commissioning Controls Sizing	Complete RTF prescriptive checklist	\$200	\$200
Duct Sealing and Insulation	$\begin{array}{l} R_{existing} \leq 2 \mbox{ or replace all existing} \\ insulation with at least R-8 \\ Must add at least R-8 to ducts \\ 80\% \mbox{ of home served by electric heat} \\ or cooling \end{array}$	\$100 for electrically cooled homes \$600 for electrically heated homes	\$50 for electrically cooled homes \$200 for electrically heated homes
Duct Sealing	Must have ducted electric heating or cooling system serving at least 80% of the home's floor area. Existing insulation should only be removed if it is being replaced.	\$100 for electrically cooled homes \$300 for electrically heated homes	\$0
Ductless Heat Pump	$\geq$ 10 HSPF, single-head or multi-head unit	\$1,000	\$300
Heat Pump Upgrade	For upgrade of existing heat pump to new high efficiency heat pump. $\geq$ 9.5 HSPF	\$150	\$100
Heat Pump Conversion	For replacement of existing electric resistance heat or electric furnace with new high efficiency heat pump. $\geq 9.5$ HSPF	\$1,250	\$500
Insulation - Attic	$\begin{array}{l} R_{initial} \leq 19 \\ R_{final} \geq 49 \end{array}$	\$0.10/sf. for electrically cooled home \$0.35/sf. for electrically heated	\$0/sf.

Measure	Qualifications	Customer Incentive	Mid-Market Incentive
		home	
Insulation - Floor	$\begin{array}{l} R_{initial} \leq 11 \\ R_{final} \geq 30 \\ Home's \ primary \ heat \ source \ must \ be \\ electric \end{array}$	\$0.30/sf.	\$0/sf.
Insulation - Wall	Wall cavity lack effective insulation Must add R-11 or fill cavity Home's primary heat source must be electric	\$0.40/sf.	\$0/sf.
Air Sealing	Air seal entire home per program requirements	\$0.15/sf	\$0/sf
Windows	Tier 1: U-factor of 0.30 or lower. Electrically heated home only. Tier 2: U-factor of 0.22 or lower.	Tier 1: • \$0.25/sf. for electrically heated homes only Tier 2: • \$0.50/sf. for electrically cooled home • \$1.50/sf. for electrically heated home	\$0/sf.
Whole-Home Upgrade Package	Install all of the following per Program requirements: • Heat Pump or Ductless Heat Pump • Whole-Home Attic Insulation • Whole-Home Wall Insulation • Duct Sealing & Insulation if main heat or cooling source is ducted • Air Sealing	\$1,000 bonus	\$0
New Homes Whole HomeTo align with regional New Homes offerings, the Program will offer incentives to builders based on the new homes' percentage improvement beyond code, beginning at 15% better than code and increasing. The home's performance will be modeled and verified by independent third-parties and the models will be delivered to the program for final savings and incentives calculations. See program website details.		Up to \$5,000	\$0
New Homes Refrigerators	CEE Tier 2 and above	\$35	\$0
New Homes Heat Pump Water Heater	Northern Climate Specification Qualified Due to April 16, 2015 federal standard units that do not meet the new standard will no longer be offered incentives after April 15, 2015.	Up to \$800	\$0

Measure	Qualifications	Customer Incentive	Mid-Market Incentive
New Homes Central Air Conditioner	$\geq$ 18 SEER	\$100	\$0
New Homes Heat Pump	$\geq$ 9.5 HSPF	\$250	\$0
New Homes Windows	Install windows with a U-Factor $\leq 0.22$ Home must have electric heat pump.	\$1.00/sf.	\$0
New Homes Ductless Heat Pump	$\geq$ 10 HSPF, single-head or multi-head unit	\$1,300	\$0
Low-Flow Showerheads	Flow rate $\leq 2.00$ GPM	\$0	Up to \$15.00
Low-Flow Aerators	Flow rate $\leq 1.50$ GPM	\$0	Up to \$5.00
Manufactured Homes, Duct Sealing	Must have ducted electric heating system serving at least 80% of the home's floor area. Existing insulation should only be removed if it is being replaced.	\$0	Up to \$500
Manufactured Homes, Air Sealing	Air seal entire home per program requirements	\$0.30/sf	\$0/sf
New Manufactured Homes, High Performance	Home must receive High Performance certification.	\$0	\$2,000
New Manufactured Homes, ENERGY STAR	Home must receive ENERGY STAR certification.	\$0	\$1,000
New Manufactured Homes, Eco-rated Homes	Home must receive Eco-rated certification.	\$0	\$1,250

#### Notes for lighting incentives:

- Mid-market incentives for CFL and LED bulbs apply to upstream, mail by request and direct install.
- See product list on program website.
- Reduced price CFL, LED, or fixture offer may end early if entire allocation is sold.

#### Notes for HVAC incentives:

• See additional installation requirements on program website.

#### Notes for weatherization incentives:

- See additional installation requirements on program website.
- Windows and Attic Insulation homes must have electric heating and/or ducted unitary air conditioning serving at least 80% of conditioned floor area in order to qualify.
- Customers with both electric heat and electric cooling are only eligible for incentives for electrically heated homes

#### Notes for new homes incentives:

- Currently enrolled projects as of December 31, 2013 for the New Homes ENERGY STAR Builders Option Package will be offered the incentive through to project completion
- See additional installation requirements on program website
- Customers with both electric heat and electric cooling are eligible for the incentives for electrically heated homes only.

#### Notes for plumbing and manufactured homes incentives:

• Mid-market incentives for low-flow showerheads and low-flow aerators apply to upstream, mail by request and direct install.

- See additional installation requirements on program website.
- Manufactured Homes, Duct Sealing Contractor will be reimbursed for actual job costs, at no cost to the customer. Costs may include surcharge for mileage, duct testing and other job expenses.
- Acronyms: GPM: Gallons per minute

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Original Sheet No. 118.1

#### Schedule 118 HOME ENERGY SAVINGS INCENTIVE PROGRAM

#### PURPOSE:

Service under this tariff is intended to maximize the efficient utilization of the electricity requirements of new and existing loads in new and existing residences including manufactured housing and multi-family dwellings.

#### APPLICABLE:

To new and existing residential customers in all territory served by the Company in the state of Washington billed on Schedules 16, 17 and 18. Landlords who own rental properties served by the company in the state of Washington where the tenant is billed on Schedules 16, 17 and 18 also qualify for this program.

#### **CUSTOMER PARTICIPATION:**

Customer participation is voluntary and is initiated by following the participation procedures listed on the program web site.

#### **DESCRIPTION:**

On-going program to deliver incentives for a variety of equipment and services intended for and located in residential dwellings. Home Energy Savings Incentive Program will be delivered by the Program Administrator and periodic changes will be made to insure or enhance program cost effectiveness as defined by the Company.

#### **QUALIFYING EQUIPMENT OR SERVICES:**

Equipment or services for residential dwellings, which when correctly installed or performed, result in verifiable electric energy usage reductions where such usage is compared to the existing equipment or baseline equipment as determined by the Company.

#### PROGRAM ADMINISTRATOR:

Qualified person or entity hired by the Company to administer this program.

#### **PROVISIONS OF SERVICE:**

- 1. Qualifying Equipment or Services, incentive amounts, and participation procedures will be listed on the program Web site.
- 2. Incentive delivery may vary by technology and may include any or all of the following; post purchase mail-in, point-of-purchase buy-down, manufacturer buy-down or pre- purchase offer and approval.
- 3. Incentives may be offered for year-round or for selected time periods.
- 4. Incentive offer availability, incentive levels and Qualifying Equipment or Services may be changed by the Program Administrator after consultation with the Company to reflect changing codes and standards, sales volumes, quality assurance data or to enhance program cost effectiveness.

(continued)

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#### **Issued By Pacific Power & Light Company**

By: <u>Andrea Kelly</u> Andrea L. Kelly

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Original Sheet No. 118.2

#### Schedule 118 HOME ENERGY SAVINGS INCENTIVE PROGRAM

#### PROVISIONS OF SERVICE: (continued)

- 5. All changes will occur with a minimum of 45 days notice, be prominently displayed as a change, include a minimum 45 day grace period for processing prior offers (except for manufacturer buy-down incentive delivery) and be communicated at least once to retailers who have participated within the last year.
- 6. Except for manufacturer buy-downs, incentives paid directly to participants will be in the form of a check issued within 45 days of Program Administrator's receipt of a complete and approved incentive application.
- 7. Equipment and services receiving an incentive under this program are not eligible for incentives under other Company programs.
- 8. Company and/or Program Administrator will employ a variety of quality assurance techniques during the delivery of the program. They may differ by equipment or service type and may include, but are not limited to, pre and post installation inspections, phone surveys, retailer invoice reconciliations and confirmation of customer and equipment eligibility.
- 9. Company may verify or evaluate the energy savings of installed equipment or services. Verification or evaluation may include, but are not limited to, telephone survey, site visit, billing analysis, pre- and post-installation of monitoring equipment as necessary to quantify actual energy savings.

#### ELECTRIC SERVICE REGULATIONS:

Service under this schedule will be in accordance with the terms of the electric service Agreement between the Customer and the Company. The Electric Service Regulations of the Company on file with and approved by the Washington Utilities and Transportation Commission, including future applicable amendments, will be considered as forming a part of and incorporated in said Agreement.

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**Issued By Pacific Power & Light Company** 

By: Andrea Kelly Andrea L. Kelly

## **Home Energy Reports**

## Years of Implementation

The Home Energy Report program was implemented in August 2012 with a treatment group of 13,500 customers and was scheduled to run through December 2015 (41 months). In September 2014, based on the solid results of the initial 18 month evaluation results, the program was extended to run through December 2017. The program was also expanded to include a second treatment group of 35,000 households.

## Program Description

The Home Energy Report program is designed to better inform residential customers about their energy usage by providing comparative energy usage data for similar homes located in the same geographical area. In addition, the report provides the customer with information on how to modify their energy usage. Equipped with this information, customers can modify behavior and/or make structural, equipment, lighting or appliance changes to reduce their overall electric energy consumption.

## Evaluation Results

On June 18, 2014, Navigant Consulting, Inc. completed an initial 18 month evaluation of the pilot program for the period from August 1, 2012 through January 31, 2014. The evaluation found that participating customers reduced their energy consumption by 1.80%. The PacifiCorp Total Resource Cost test (PTRC) benefit - cost ratio for the 18 month pilot is 2.46. The PTRC results includes the 10% Northwest Regional Credit as an additional benefit.

## Evaluation Update

Last Evaluation Report:		
Program Years	Evaluation Report Date	Completed by
8/1/2012 - 1/31/2014	June 18, 2014	Navigant Consulting
Future Evaluation Report(s):		
Program Years	<b>Evaluation Report Date</b>	To be Completed by
1/1/2014 - 12/31/2015	By May 2016	Navigant Consulting

## Program Details

Reports for the pilot program were initially provided to approximately 13,500 customers, which as expected has decreased over the initial 18 month pilot period related to normal attrition for customer opt-outs and move-outs. Over the initial 18 months of the pilot program, participation reductions from customer opts outs were just over 1%. The low number of opt outs suggests there is high satisfaction among the customers currently receiving the reports. The initial pilot program consisted of a customer population made up of customers with an annual average electrical energy usage of 20,000 kilowatt hours. To achieve this, the upper bound annual average is approximately 29,000 kilowatt hours and the lower bound annual average is 13,500 kilowatt hours.

The 11,500 households currently participating in the Legacy program will continue to receive bimonthly home energy reports through December 31, 2017. Each participating household will receive an additional 12 reports over the term of the program extension (2016-2017). The 35,000 households in the expansion group l received monthly reports for the initial three months of the expansion period in order to familiarize customers with the reports and information after which reports frequency was moved to a bi-monthly schedule. Each participating household in the expansion group is projected to receive a total of 21 reports between October 2014 and December 2017. The randomization of the treatment and control group was performed by Navigant Consulting Inc. Customers may also request an electronic version delivered via email.

As part of the expansion offer, all households received access to a web portal containing the same information about their current and past usage as those receiving program reports. The web portal has other functions to assist customers such as a home energy audit tool and suggestions to improve energy conservation and efficiency in their home.

Savings are being tracked and reported annually based on reporting from the vendor. Savings reported against the I-937 target will be based on an ex-post evaluation of the program performance.

## Planned Program Changes

The Company is closely tracking the performance of the expansion group which to date is underperforming initial savings forecasts. If mitigation actions taken don't improve the expansion group's performance the Company will assess the viability of continuing the reports beyond 2015.

## Low Income Residential Program Details

The Company offers a Low Income Weatherization program (Schedule 114) to its income-eligible residential customers.

## Low Income Weatherization (Schedule 114)

## Years of Implementation

The Low Income Weatherization program has been in effect since the mid-1980's and has successfully assisted in the weatherization of over 7,200 homes in the state of Washington.

## Program Description

Pacific Power partners with three local non-profit agencies, Blue Mountain Action Council in Walla Walla, Northwest Community Action Center in Toppenish and Opportunities Industrialization Center of Washington in Yakima to provide weatherization services to income qualifying households throughout its Washington service area. The leveraging of Pacific Power funding along with Washington MatchMaker Program funds allows the agencies to provide these energy efficiency services at no cost to participating customers. The Company provides rebates to partnering agencies for 50 percent of the cost of services while MatchMaker funds are available, and covers 100 percent of costs when these state funds are depleted. Participants qualify whether they are homeowners or renters residing in single-family homes, manufactured homes or apartments.

## Planned Program Changes

No program changes are planned at this time but the Company is reviewing evaluation findings to determine if there are revisions that will improve the services provided and program results. Match Maker program funds were depleted by the agencies in the first half of 2015 and agencies billed Pacific Power for a portion of homes at 100 percent (instead of the typical 50 percent). Match Maker funds for a two year period were allocated to our partnering agencies as of July 1, 2015, and it is anticipated that for the remainder of 2015 and through 2016 agencies will bill the Company at the typical 50 percent level..

## Evaluation Update

The next program evaluation will be completed by the end of 2015.

Last Evaluation Report:		
Program Years	Evaluation Report Date	Completed by
March 2009 – February 2011	September 7, 2012	The Cadmus Group
Future Evaluation Report(s): Program Years 2011 - 2012	<b>Evaluation Report Date</b> By September, 2015	<b>To be Completed by</b> Smith & Lehmann Consulting

## Program Details

Details for this program are contained in the program tariff. Any changes to the details included in the program tariff must be filed and approved by the Commission prior to becoming effective.

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#### PACIFIC POWER & LIGHT COMPANY

Original Sheet No. 114.1

#### Schedule 114 RESIDENTIAL ENERGY EFFICIENCY RIDER – OPTIONAL FOR QUALIFYING LOW INCOME CUSTOMERS

#### PURPOSE:

Service under this schedule is intended to maximize the efficient utilization of the electricity requirement of existing residential dwellings inhabited by customers that meet income guidelines through the installation of permanent energy efficient materials.

#### APPLICABLE:

To residential Customers residing in single family, multi-family and manufactured home dwellings billed under Schedule 16 or Schedule 17 in all territory served by the Company in the State of Washington. This schedule is applicable to existing dwellings built before July 1, 1991 with permanently installed operable electric space heating designed to heat the living space of the dwelling, except as noted under the energy efficient measures section of this tariff.

#### **DESCRIPTION**:

Service under this program is available to improve the energy efficiency of applicable residential dwellings connected to Company's system. The decision to extend service under this schedule shall be based on eligibility requirements contained herein.

#### DEFINITIONS:

- (1) "Dwelling" means real or personal property within the state inhabited as the principal residence of a dwelling owner or a tenant. "Dwelling" includes a manufactured home, a single-family home, duplex or multi-unit residential housing. "Dwelling" does not include a recreational vehicle.
  - (a) Duplexes and four-plexes are eligible if at least one half of the dwelling is occupied by low income tenants.
  - (b) Triplexes and multi-family dwellings are eligible if at least 66% of the units are occupied by low income tenants.
- (2) "Agency" means a non-profit group, Municipality or County authorized to receive funds for installation of weatherization materials in low income properties.
- (3) "Energy Audit" means a service provided by the Agency that includes the measurement and analysis of the energy efficiency of a dwelling including energy savings potential that would result from installing energy efficient measures that are determined to be cost effective.
- (4) "Low Income" means households qualifying under the federal low income guidelines and certified for eligibility according to agency procedure.
- (5) "Major Measures" means ceiling insulation, wall insulation and floor insulation applicable in dwellings with permanently installed electric space heating systems. If physical barriers exist that prohibit the installation of a measure, then the measure is not required as a condition for financial assistance under this schedule. (continued)

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By: Andrea Kelly Andrea L. Kelly

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First Revision to Sheet No. 114.2 Canceling Original Sheet No. 114.2

#### Schedule 114 RESIDENTIAL ENERGY EFFICIENCY RIDER – OPTIONAL FOR QUALIFYING LOW INCOME CUSTOMERS

#### **DEFINITIONS:** (Continued)

- (6) "Supplemental Measures" are not required measures under this schedule, but may qualify for a Company reimbursement based on audit results or a U.S. Department of Energy approved priority list.
- (7) The "Energy Matchmaker Program" in the State of Washington is designed to increase resources for low-income weatherization by leveraging local matching dollars. A community based agency can access the Energy Matchmaker funds by providing a dollar-for-dollar match. Anticipated match providers include utilities, local governments, service organizations and rental housing owners. All measures installed under the Pacific Power Program must also be eligible under the Energy Matchmaker Program.

#### FINANCIAL ASSISTANCE:

- (1) The Company will reimburse the "Agency" 50% of the installed cost of all eligible Energy Efficient Measures listed in this tariff. If Matchmaker Program participating Agencies exhaust Matchmaker Funds, Company will fund "Agency" 100% of costs associated with the installation of eligible Energy Efficient Measures. Measures will be determined to be cost effective (Savings to Investment Ratio of 1.0 or greater) through the results of an U.S. Department of Energy (DOE) approved audit or priority list. Financial assistance will be provided one time only on any individual major or supplemental measure, and up to two times per dwelling.
- (2) The Company will reimburse the "Agency" for administrative costs when all major measures determined to be cost effective have been installed. The administrative reimbursement will be calculated as: 15% of the Pacific Power rebate.
- (3) The Company will reimburse the "Agency" 50% of the installed cost of repairs necessary to make the installation of the energy efficient measures included in this effective tariff. When matching funds are exhausted funding will be at 100%. The total reimbursement on repairs available to the "Agency" is limited to 15% of the annual reimbursement on energy efficient measures received.
- (4) Agencies must notify Company when matching funds are depleted, no less than 30 days prior to billing at 100% funding levels.
- (5) Total funding for all program components will not exceed \$1,000,000 per calendar year.
- (6) Agencies must invoice the Company within ninety days of job completion.

(continued)

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## **Issued By Pacific Power & Light Company**

By: \_\_\_\_\_\_ William R. Griffith

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First Revision to Sheet No. 114.3 Canceling Original Sheet No. 114.3

#### Schedule 114 **RESIDENTIAL ENERGY EFFICIENCY RIDER – OPTIONAL FOR QUALIFYING** LOW INCOME CUSTOMERS

#### ENERGY EFFICIENT MEASURES:

Financial assistance will be provided based on the results of a cost-effective analysis (Savings to Investment Ratio of 1.0 or greater) through the use of a U.S Department of Energy approved energy audit or priority list. The energy efficient measures eligible for funding must be installed in dwellings with permanently installed operable electric space heat except where noted. The installation of measures listed as "Always considered cost effective" under Major and Supplemental Measures are not dependent on audit results. The energy efficient measures that may be eligible for funding are listed as follows along with their estimated measure life where applicable:

#### Major Measures:

- (1) Ceiling insulation up to R-49 for ceilings with less than R-30 in place. R-30 or better attics will not be further insulated: 30 years.
- Floor insulation over unheated spaces up to R-30: 30 years. (2)
- (3) Wall insulation or exterior insulation sheathing up to R-26 for walls with no insulation installed (financing will not be available for the installation of urea-formaldehyde wall insulation): 30 years.

Nothing shall preclude the Company from providing a reimbursement for the installation of a greater R value of insulation for the above items that are determined to be cost effective (Savings to Investment Ratio of 1.0 or greater) through the audit process.

#### Supplemental Measures:

- (1) Attic ventilation, excluding power ventilators when installed with ceiling insulation (required if needed at the time ceiling insulation is installed). Whole house mechanical ventilation, and spot ventilation for kitchen and baths at time ceiling insulation is installed: Always considered cost effective.
- (2) Ground cover and water pipe wrap when installed with floor insulation; other vapor barrier materials as required when installed with floor or ceiling insulation: Always considered cost effective.
- (3) Forced air electric space heating duct insulation and sealing in unheated spaces: 30 years.
- Weather stripping and/or caulking, including blower door assisted air sealing and duct sealing: Always (4) considered cost effective.
- (5) Thermal doors: 30 years.

(continued)

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Schedule 114 RESIDENTIAL ENERGY EFFICIENCY RIDER – OPTIONAL FOR QUALIFYING LOW INCOME CUSTOMERS

ENERGY EFFICIENT MEASURES: (continued) Supplemental Measures:

- (6) Dehumidifiers: Always considered cost effective.
- (7) Timed thermostats on centrally controlled multi-room heating systems except when used with heat pumps. Heat anticipating type thermostats for zonal electric resistance heating systems. Zonal thermostats must be separate from the heating unit and must be calibrated at the site to within 2°F of actual room temperature in the range of 65°F-75°F: Always considered cost effective.
- (8) Energy efficient showerheads and aerators where electric water heaters are present. Showerheads with a visible flow rating greater than 2.5 gallons per minute (gpm) will be replaced, and showerheads without a gpm marking may be replaced at the discretion of agency staff: Always considered cost effective.
- (9) Water heaters: Tank replacement of existing electric water heaters when audit indicates a Savings to Investment Ratio of 1.0 or greater. Replacement will be an Energy Star certified model with an EF 40-49 gallon capacity = 0.94 rating as follows: or greater, 50-65 gallon capacity = 0.95 or greater, 66+ gallon capacity = 0.93 or greater. 13 years.
- (10) Fluorescent light fixtures applicable in all homes: 15 years.
- (11) Compact fluorescent light bulbs applicable in all homes limit 10 Energy Star certified bulbs per home placed in fixtures that are on 2 or more hours per day: Always considered cost effective, 7 years.
- (12) Refrigerators applicable in all homes: Refrigerators with monitored results or listed in the Weatherization Assistance Program Technical Assistance Center database showing annual usage of 1,500 kWh or greater may be replaced with an Energy Star model with an estimated annual consumption of 600 kWh or less. Replaced refrigerators must be removed and recycled in accordance with EPA guidelines: Always considered cost effective, 15 years.
- (13) Class 40 Replacement windows: 25 years.

(continued)

Issued	<b>1:</b> May 3, 2013		Effective: July 1, 2013		
Docket No. 13-05					
	Issued By Pacific Power & Light Company				
Ву:	Willin R. r. flat	_William R. Griffith	Title: Vice President, Regulation		

#### WN U-75

First Revision of Sheet No. 114.5 Canceling Original Sheet No. 114.5

## Schedule 114 **RESIDENTIAL ENERGY EFFICIENCY RIDER – OPTIONAL FOR QUALIFYING** LOW INCOME CUSTOMERS

## PROVISIONS OF SERVICE:

- A Department of Energy approved Energy Audit must be completed or an approved priority list used (1) by the Agency prior to installation of the measures by the Agency.
- (2) Agency must qualify residential customers for assistance using the Federal Low Income Guidelines.
- Measures installed under this schedule shall not receive financial incentives from other Company (3) programs.
- (4) Agency shall inspect the installation to ensure that the weatherization meets or exceeds required specifications.
- (5) Company may audit Agency weatherization and financial records and inspect the installations in dwellings of customers receiving weatherization under this program. Records will include audit and/or priority list results.
- Company shall pay the Agency the amount established under the terms of their contract when (6) provisions of this schedule have been met.

#### RULES AND REGULATIONS:

Service under this schedule is subject to the General Rules and Regulations contained in the tariff of which this schedule is a part, and to those prescribed by regulatory authorities.

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<b>Docket</b>	No. 1	3-0	5

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Issued By Pacific Power & Light Company

By: \_\_\_\_\_ William R. Griffith

## **Non-Residential Program Details**

The Company offers *watt*smart Business (Non-Residential Energy Efficiency - Schedule 140) to non-residential customers in the State of Washington. The program provides a comprehensive set of financial and service incentives to assist the Company's non-residential customers in improving the energy efficiency of their facilities.

## wattsmart Business (Schedule 140)

## Years of Implementation

The *watt*smart Business program (Schedule 140) was created in 2014 by the consolidation of two existing programs: Energy FinAnswer and FinAnswer Express. The Energy FinAnswer program was originally implemented in the 1990s as an energy efficiency improvement financing program. Customer loan payments were calculated to equal expected monthly savings from the energy efficiency improvements made until the loan was satisfied. The program was modified to an incentive based program under Schedule 125 in October 2000.<sup>4</sup> The Small Retrofit Incentive and Retrofit Incentive (Schedules 115 and 116) were created in November 2000 and were improved and renamed FinAnswer Express (Schedule 115) in May 2004.

The consolidation of the programs to *watt*smart Business was approved with Docket UE-132083, effective January 1, 2014.

# Program Description

The *watt*smart Business program was designed to support continuing acquisition of all cost-effective conservation from business customers and help reinforce the ongoing ethos of energy efficient new construction, facility upgrades, and ongoing operations.

Prescriptive incentives ("Typical Upgrades") are offered to commercial, industrial and agricultural customers for typical lighting, HVAC, motor, building envelope, food service, appliances, irrigation, dairy/farm equipment, compressed air and other retrofits or new installations. Typical Upgrades include an expedited energy analysis and incentives based on the equipment installed (\$/fixture, \$/motor, \$/ton, etc.).

As of October 1, 2014, the program includes a lighting retrofit incentive offer specifically for small business customers receiving electric service on Schedule 24. Participating customers utilizing an approved contractor are eligible for an enhanced incentive offer targeted at 80% of the project cost.

Custom incentives and analysis are offered for commercial, industrial, and agricultural customer retrofits and new construction measures that meet minimum efficiency qualifications of the prescriptive incentives, but do not have a prescriptive incentive available. The program includes a vendor neutral investment grade energy analysis and cash incentives equal to \$0.15 per kWh of annual energy savings (up to 70 percent of project costs).<sup>5</sup> There is a cap to prevent incentives from

<sup>&</sup>lt;sup>4</sup> Prior to October 2000, the program offered energy efficiency funding repaid with interest on the customer's electric bill.

<sup>&</sup>lt;sup>5</sup> Note there are no incentive caps for new construction projects where energy code applies.

bringing the payback for a project below one year. Custom analysis includes a post-installation verification and, if required, the program includes commissioning for dynamic measures. The program provides energy project manager (EPM) co-funding to increase end user management and engineering manpower devoted to electrical energy projects/activities increasing the number of commercial and industrial projects that can be completed. EPM co-funding is performance based and contingent on customer's commitment to an energy savings goal over a prescribed timeframe; typically 12 months. Participating customers set a verifiable energy savings goal and receive co-funding proportionate to that goal at \$0.025/kWh (subject to a minimum co-funding level and salary cap). If the customer meets these verified energy savings goals on schedule, co-funding continues. If however, milestones are missed, co-funding would be suspended and/or ultimately ended and repayment of unearned co-funding would be required.

Energy Management was added to the *watt*smart Business program in January 2014. Energy Management incentives expand the program and help the Company partner with customers to ensure ongoing efficiency improvements in the operation and management of facilities and industrial processes. Energy Management is a system of practices that creates reliable and persistent electric energy savings through improved operations, maintenance and management practices at customer sites. It is designed to complement program offerings for capital improvements and the Energy Project Manager co-funding offer.

Energy Management offers multiple levels of engagement: Strategic Energy Management, Persistent Commissioning, Industrial Re-commissioning and Re-commissioning. The level of engagement will be in direct response to the customer's specific needs and their commitment to a process that can extend from 3 to 24 months and produce measurable savings. Savings are site specific and monitoring of building systems and industrial process controls is used to identify and quantify energy savings.

On June 1, 2015, the following program changes became effective:

a) add a midstream point-of-purchase delivery channel for LED lamps. The incentives for this offer are referred to as LED Instant Incentives,

b) make clarifications regarding new construction and major renovation lighting projects, and c) update small air conditioner and heat pump measures to align with updated federal standards.

The program is marketed primarily via Pacific Power account managers, *watt*smart Business vendors, *watt*smart Business consultants, and project staff. Other leads come via advertising in business publications, company newsletters, word-of-mouth, past participants returning for additional projects and a combination of other Company outreach efforts.

## Planned Program Changes

Research is underway to inform the next program changes. Future changes will be based on costeffectiveness, participation and updated market information.

## Evaluation Update

#### FinAnswer Express

Last Evaluation Report: Program Years 2012-2013

Energy FinAnswer

Last Evaluation Report: Program Years 2012- 2013 **Evaluation Report Date** March 19, 2015 **Completed by** Navigant Consulting, Inc.

**Evaluation Report Date** March 17, 2015 **Completed by** Navigant Consulting, Inc.

#### wattsmart Business

Future Evaluation Report(s): Program Years 2014-2015

**Evaluation Report Date** By year-end 2016 To be Completed by The Cadmus Group

## Program Details

General program details for this program are contained in the program tariff; additional program detail is available on the program website. Any changes to the details included in the program tariff must be filed and approved by the Commission prior to becoming effective. In addition, there are program details managed outside of the program tariff. The program tariff utilizes the modification procedure established with the approval of Advice No. 06-008 by the Washington Utilities and Transportation Commission. The program tariff and the text below from the Advice Letter 06-008 (Docket UE-061710), filed on November 8, 2006, describe the information that is managed outside of the tariff and the process for changes.

Future changes in the ... incentive tables and definitions would be driven by program and market data. The Company assesses program performance on an ongoing basis and would propose changes at least annually. Changes may be proposed more frequently if there is compelling market data. Similar to the filing process, the Company would present information on proposed changes to its Advisory Group and seek comments prior to making changes. Changes would be clearly posted on the program web site and e-mailed to the appropriate Commission staff person with at least 45 days advance notice.

The incentive tables, program definitions and custom incentives offered are managed outside of the program tariff on the Company website via the process described above.

The current information for the program can be found on the Company's website at <u>www.bewattsmart.com</u>.

## Washington *wattsmart* Business

# **Definitions**

**Customer:** Any party who has applied for, been accepted and receives service at the real property, or is the electricity user at the real property.

**Energy Efficiency Incentive:** Payments of money made by Pacific Power to Owner or Customer for installation of an Energy Efficiency Measure pursuant to an acknowledged Energy Efficiency Incentive Offer Letter or approved Energy Efficiency Incentive Application.

**Energy Efficiency Incentive Offer Letter:** An offer made by Pacific Power and acknowledged by Owner or Customer providing for Pacific Power to furnish Energy Efficiency Incentives for an Energy Efficiency Project.

**Incentive Application:** An application submitted by Owner or Customer to Pacific Power for Energy Efficiency or Energy Management Incentives.

**Energy Efficiency Measure (EEM):** Qualifying measures are any measures which, when installed in an eligible facility, result in verifiable electric energy efficiency improvement compared to a baseline as determined by Pacific Power. The baseline will be determined with reference to existing equipment, applicable state or federal energy codes, industry standard practice and other relevant factors.

# **Energy Efficiency Measure (EEM) Cost:**

- New Construction/Major Renovation: EEM Cost is the total installed cost of energy efficiency equipment or system minus the cost of the code compliance/common practice equipment or system.
- Retrofit: EEM Cost is the total installed cost of the energy efficiency equipment or modification. In the case of New Construction, Major Renovations, and Retrofits, EEM Costs shall mean the Owner or Customer's reasonable costs incurred (net of any discounts, rebates or incentives other than Energy Efficiency Incentives from Pacific Power, or other consideration that reduces the final actual EEM Cost incurred by the Owner or Customer) to purchase and install EEMs at the Owner's or Customer's facility. If the Owner or Customer installs the EEM then the cost of installation shall be equal to the Owner's or Customer's actual labor costs for such installation.

**Energy Efficiency Project:** One or more EEM(s) at a Non-residential Facility<sup>6</sup> with similar one year payback limitations (see below) covered by one Energy Efficiency Incentive Offer Letter.

**Energy Efficiency Project Cost:** The sum of EEM Costs for one or more EEM(s) with similar one year payback limitations (see below) covered by one Energy Efficiency Incentive Offer Letter.

<sup>&</sup>lt;sup>6</sup> Measures at multiple Non-residential Facilities may be included in one Offer Letter for convenience; however, project incentive caps (if any) are applied per individual Non-residential Facility.

**Energy Management Offer Letter:** An offer made by Pacific Power and acknowledged by Owner or Customer and Pacific Power providing for Pacific Power to furnish Energy Management Incentives for an Energy Management Project.

**Energy Management Incentive:** Payments of money made by Pacific Power to Owner or Customer for implementation of an Energy Management Measure pursuant to an executed Energy Management Offer Letter.

**Energy Management Measure (EMM):** an operational improvement which, when implemented in an eligible facility, result in electric savings compared to current operations as determined by Pacific Power.

**Energy Management Project:** One or more EMM(s) at a Non-residential Facility covered by one Energy Management Offer Letter.

**Energy Project Manager:** an employee or direct contractor of the Customer who will manage electrical energy efficiency projects that deliver savings toward the Customer/Owner's energy savings goal.

**Energy Project Manager Co-funding:** funding towards the Energy Project Manager agreed upon full value salary that is solely attributable to electrical energy efficiency work.

**Major Renovation:** A change in facility use type or where the existing system will not meet Owner/Customer projected requirements within existing facility square footage.

**Mixed Use:** Buildings served by a residential schedule and a rate schedule listed under Washington Schedule 140 shall be eligible for services under this schedule provided the Energy Efficiency Project meets the definition of New Construction or Major Renovation.

**New Construction:** A newly constructed facility or newly constructed square footage added to an existing facility.

**Non-residential Facility:** A Customer site that is served by Pacific Power and meets the applicability requirements of Washington Schedule 140, the program tariff, on file with the Washington Utilities & Transportation Commission.

**Owner:** The person who has both legal and beneficial title to the real property, and is the mortgager under a duly recorded mortgage of real property, the trustor under a duly recorded deed of trust.

**Retrofit:** Changes, modifications or additions to systems or equipment in existing facility square footage.

## **Incentives – General Information**

## Incentives for measures listed in the incentive tables

Per unit incentives are listed in the program incentive tables for specific Energy Efficiency Measures (EEMs) and are subject to the incentive caps below. Incentives are subject to change and current incentives can be found at www.pacificpower.net.

## **Custom incentives**

Energy Efficiency Measures not listed in the prescriptive incentive tables (typical upgrades) may be eligible for a Custom Energy Efficiency Incentive. Pacific Power will complete an analysis of the EEM Cost and electric energy savings and determine whether to offer a custom Energy Efficiency Incentive and the incentive amount.

Electric savings resulting from lighting interaction with mechanical equipment is not eligible for a custom Energy Efficiency Incentive.

## **Energy management incentives**

Non-Capital, improvements to operations and maintenance within a qualifying facility may be eligible for an Energy Management Incentive. Pacific Power will partner to complete an analysis of the electric energy savings of potential energy management measures and determine whether to offer an Energy Management Incentive and the incentive amount.

## **Energy project manager co-funding**

Pacific Power can fund an additional \$0.025/per kWh of verified *watt*smart Business energy savings, up to 100 percent of the Energy Project Manager's salary. Salary is based on a letter from the Customer/Owner's human resources or accounting department stating the base annual salary and an appropriate overhead percentage, and subject to approval by Pacific Power.

## **Baseline adjustments**

The baseline wattage for all retrofit incandescent and linear fluorescent lighting EEMs is the lesser of:

- a) Wattage of existing equipment, or
- b) Wattage of deemed baseline equipment listed in the lighting wattage table available on the Washington energy efficiency program section of the Pacific Power website.

Pacific Power may adjust baseline electric energy consumption and costs to reflect any of the following: energy codes, standard practice, changes in capacity, changes in production or facility use and equipment at the end of its useful life. Such adjustments may be made for lighting energy efficiency measures installed in new construction projects where energy code does not apply.

## **INCENTIVES:**<sup>7</sup>,<sup>8</sup>

Ca	tegory	Incentive	Percent Project Cost Cap <sup>9</sup>	1-Year Simple Payback Cap for Projects <sup>10</sup>	Other Limitations
Prescriptive Incentives (Typical Upgrades)	Lighting - Retrofit Lighting - New Construction/ Major Renovation Motors HVAC Building Envelope Food Service Appliances Office Irrigation Farm and Dairy Compressed Air Wastewater and other Refrigeration	See incentive lists	70% None None None None None 70% 70%	Yes No No No No No Yes Yes Yes Yes	See incentive lists
Enhanced Incer Businesses	ntives for Small	Determined by Company with not- to-exceed amounts as shown in incentive table for this offer	80%	No	Available to all Schedule 24 customers meeting small business criteria on Company website. Qualifying equipment must be installed by an approved contractor/vendor.

<sup>&</sup>lt;sup>7</sup> The Customer or Owner may receive only one financial incentive from Pacific Power per measure. Financial incentives include energy efficiency incentive payments and energy management payments. Energy Project Manager Co-Funding is available in addition to the project incentives.

<sup>&</sup>lt;sup>8</sup> Incentives for prescriptive measures are restricted to the amounts shown on the website.

<sup>&</sup>lt;sup>9</sup> All EEM Costs are subject to Pacific Power review and approval prior to making an Energy Efficiency Incentive Offer. All final EEM Costs are subject to Pacific Power review and approval prior to paying an Energy Efficiency Incentive per the terms of the Energy Efficiency Incentive Offer or approved Application. Pacific Power review and approval of EEM Costs may require additional documentation from the Customer or Owner.

<sup>&</sup>lt;sup>10</sup> The 1 year simple payback cap means incentives will not be available to reduce the simple payback of a project below one year. If required, individual measure incentives will be adjusted downward pro-rata so the project has a simple payback after incentives of one year.

Mid-market incentives	Determined by Company with not- to-exceed amounts as shown in incentive table for this offer	No	No	Incentives available at the point of purchase through approved distributors/retailers or via a post- purchase customer application process.
Custom Non-Lighting Incentives for qualifying measures not on the prescriptive list. <sup>11</sup>	\$0.15 per annual kWh savings	70%	Yes	N/A
Energy Management	\$0.02 per kWh annual savings	N/A	No	N/A
Energy Project Manager Co- Funding	\$0.025 per kWh annual savings	100% of salary and eligible overhead	No	Minimum savings goal posted on Pacific Power website

# **Energy Project Manager Co-funding Incentives**

Payment No.	Payment Amount	Milestone
1 - Initial payment	1/3 of funding amount* (not to exceed \$25,000)	<ol> <li>You select an Energy Project Manager</li> <li>We work together on Comprehensive Plan for electric energy savings</li> <li>You sign the Energy Project Manager Offer Letter</li> </ol>
2 - Final payment	\$0.025 per kwh of energy savings achieved, to a maximum 100 percent of approved Energy Project Manager Salary and less the initial payment	<ol> <li>At the end of performance period as defined in the Energy Project Manager Offer Letter</li> </ol>

\*Funding amount is based on the lesser of (a) \$0.025 per kWh or (b) the total annual cost of the Energy Project Manager (salary plus overhead).

# **Retrofit Lighting Incentive Table**

Measure	Category	Eligibility Requirements	Incentive
		4' CEE Qualified High Performance Lamp and CEE Qualified Ballast included on qualified list	
T8 Fluorescent	CEE T8	-	\$3/Lamp
To Theorescent		4' CEE Qualified Reduced Wattage Lamp and CEE Qualified Ballast included on qualified list	
			\$5/Lamp

<sup>&</sup>lt;sup>11</sup> Project Cost and 1-Year Simple Payback Caps do not apply to New Construction and Major Renovation projects that are subject to state energy code.

			1
		4' CEE Qualified Reduced Wattage or High Performance	
	Premium	Lamp and CEE Qualified Ballast. Must remove one or more	
	Delamp	lamps. To delamp an existing fixture, the lamp and all	
		corresponding sockets must be permanently disabled.	\$21/Lamp Removed
	Relamp	Lamp wattage reduction $\geq$ 3 Watts, No ballast retrofit	\$1/Lamp
		Fixture with less than six (6) lamps:	
		4' CEE Qualified High Performance Lamp.	
	High Bay	Must replace T12HO/VHO, Incandescent or HID	\$18/Lamp
	Tingii Duy	Fixture with six (6) or more lamps:	
		4' CEE Qualified High Performance Lamp.	
		Must replace T12HO/VHO, Incandescent or HID.	\$12/Lamp
	Continuous	4' CEE Qualified Reduced Wattage or High Performance	
		Lamp and CEE Qualified Ballast included on qualified list	
	Operation	installed in a continuous operation application.	\$20/Lamp
	Standard		
	Standard	4' Nominal Lamp $\leq$ 28 Watts, Ballast Factor $\leq$ 1.0	\$5/Lamp
	D 1		
	Relamp	Lamp wattage reduction $\geq$ 3 Watts, No ballast retrofit	\$1/Lamp
		Fixture with less than six (6) lamps: 4' T5HO Lamp.	•
T5 Fluorescent		Must replace T12HO/VHO, Incandescent or HID	\$18/Lamp
	High Bay	Fixture with six (6) or more lamps: 4' T5HO Lamp.	
		Must replace T12HO/VHO, Incandescent or HID.	\$12/Lamp
	Continuous	4' Nominal High Output Lamp installed in a continuous	
			¢20/L
	Operation	operation application	\$20/Lamp
Cold Cathode	Screw-in Lamp		
	~~~~P	All wattages	\$5/Lamp
Compact	II		
Fluorescent Lamp	Hardwired Fixture		
(CFL)		All wattages	\$5/Fixture
		~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	
Ceramic Metal	CMH Fixture		
Halide (CMH)		All wattages	\$35/Fixture
		i ili vutugos	\$35/Tixture
Pulse Start Metal	PSMH Fixture	Wattages $> 500W$	\$60/Fixture
Halide (PSMH)	Electronic		
	Ballast	Must be used in place of or replace a magnetic ballast	\$20/Ballast
	Induction		+= 0/ = 000000
Induction	Fixture		
	TIALUIC	All wattages, New fixtures only	\$75/Fixture
	LED		0.154 Y
	LED		\$0.15/kWh annual
		LED must be listed on qualified equipment list	energy savings
	~		
Lighting	Custom		\$0.15/kWh annual
		Not listed above	energy savings

#### Notes for retrofit lighting incentive table:

- 1. To be eligible for the incentives listed, the new lighting system must use less energy than the existing lighting system replaced or the baseline lighting system as determined by Pacific Power.
- 2. Incentives are capped at 70 percent of Energy Efficiency Project Costs and incentives will not be available to reduce the Energy Efficiency Project simple payback below one year. Energy Efficiency Project Costs are subject to Pacific Power approval.
- 3. Incentives for T8 Premium Delamps may not be combined with other linear fluorescent lamp or fixture incentives. Complete fixture removals are not eligible.
- 4. Incentives for T8 and T5 Relamps may not be combined with other linear fluorescent lamp or fixture incentives and will only be paid once per facility.
- 5. Qualified equipment lists referenced in the table are posted on the Washington energy efficiency program section of Pacific Power's website.

BF = Ballast Factor
CEE = Consortium for Energy Efficiency
CFL = Compact Fluorescent Lamp
CMH = Ceramic Metal Halide
HID = High Intensity Discharge (e.g. Mercury Vapor, High Pressure Sodium, Metal Halide)
HO = High Output
LED = Light-Emitting Diode
PSMH = Pulse-Start Metal Halide
VHO = Very High Output

Measure	Category	Eligibility Requirements	Incentive
	Occupancy Control	PIR, Dual Tech, or Integral Sensor	\$ 0.30/Watt controlled
	Daylighting Control	Must control interior fixtures with Continuous, Stepped, or Bi-level ballast or automated control that dims 50% or more of the fixture in response to daylight.	\$0.34/Watt controlled
Lighting Control	Advanced Daylighting Control	Must incorporate both an occupancy sensor and daylighting sensor operating as part of the same control sequence in the same interior space.	\$0.38/Watt controlled
	Timeclock	Must control on/off schedule of lighting equipment	\$20/timeclock
	Exit Sign	LED or photoluminescent replacing incandescent or fluorescent	\$15/Sign
Non-General Illuminance	LED Message Center Sign	LED replacing existing incandescent signage	\$5/Lamp
	LED Channel Letter Sign	LED replacing existing neon or fluorescent signage	\$5/Linear Foot
	LED Marquee/Cabinet Sign	LED replacing existing fluorescent signage	\$5/Linear Foot
Custom	Custom	Not listed above	\$0.15/kWh annual energy savings

## Lighting Controls and Non-General Illuminance Lighting (Retrofit only)

#### Notes for lighting controls and non-general illuminance lighting incentive table:

1. To be eligible for the incentives listed, the new lighting system must use less energy than the existing lighting system replaced.

2. Incentives are capped at 70 percent of Energy Efficiency Project Costs and incentives will not be available to reduce the Energy Efficiency Project simple payback below one year. Energy Efficiency Project Costs are subject to Company approval.

3. Incentives for Advanced Daylighting Controls may not be combined with other lighting control incentives.

4. Watt controlled refers to the total wattage of lighting fixtures down circuit from the control.

**PIR** = Passive Infrared **Dual Tech** = Sensors combining ultrasonic and passive infrared **LED** - Light-emitting Diode

# New Construction/Major Renovation Lighting Incentive Table

Measure	Category	Eligibility Requirements	Incentive
Interior Lighting*	Lighting and Lighting Control	1. The total connected interior lighting power for New Construction/Major Renovation projects must be at least 10% lower than the interior lighting power allowance calculated under the applicable version of the State energy code. For New Construction/Major Renovation projects not included in the state energy code, the total connected lighting power must be at least 10% lower than common practice as determined by Pacific Power.	\$0.08/kWh annual energy savings
		2. Energy savings is subject to approval by Pacific Power	
	Induction Fixture	All Wattages, New Fixtures Only	\$75/Fixture
	LED Outdoor Pole/Roadway, decorative	<75W; LED must be listed on qualified equipment list	\$75/Fixture
	LED Outdoor	≤200W; LED must be listed on qualified equipment list	\$100/fixture
	Pole/Roadway	>200W; LED must be listed on qualified equipment list	\$400/fixture
	LED Canopy/Soffit	LED must be listed on qualified equipment list	\$125/fixture
	LED Wall packs	<50 Watts; LED must be listed on qualified equipment list	\$50/fixture
Exterior Lighting	LED wan packs	≥50 Watts; LED must be listed on qualified equipment list	\$75/fixture
	LED Flood Lights	<100 Watts; LED must be listed on qualified equipment list	\$75/fixture
		≥100 Watts; LED must be listed on qualified equipment list	\$150/fixture
	CFL Wall Pack	All Wattages, Hardwire Fixtures Only	\$30/Fixture
	Custom	Not listed above	\$0.08/kWh annual energy savings
	Lighting Control	Occupancy control which must control a linear fluorescent, induction, or LED fixture	\$0.30/Watt controlled

\*Project Cost Caps of 70% and 1-Year Simple Payback Caps apply to New Construction and Major Renovation projects that are not subject to state energy code. The 1 year simple payback cap means incentives will not be available to reduce the simple payback of a project below one year. If required, individual measure incentives will be adjusted downward pro-rata so the project has a simple payback after incentives of one year.

Equipment Type	Size Category	Sub-Category	Minimum Efficiency Requirement	Customer Incentive
Variable-Frequency Drives (HVAC fans and pumps)	$\leq$ 100 horsepower	HVAC fans and pumps	See Note 2	\$65/horsepower
Green Motor Rewinds	$\geq$ 15 and $\leq$ 5,000 hp		Must meet GMPG Standards	\$1/horsepower (See Note 3)

#### **Motor Incentives Table**

#### Notes for other motor incentives table:

1. Equipment that meets or exceeds the efficiency requirements listed for the equipment category in the above table may qualify for the listed incentive.

2. Throttling or bypass devices, such as inlet vanes, bypass dampers, three-way valves, or throttling valves must be removed or permanently disabled to qualify for HVAC fan or pump VFD incentives. VFDs required by or used to comply with the applicable version of the energy code are not eligible for incentives. Savings will only be realized for installations where a variable load is present.

3. Green Motor Rewind motors that are installed or placed in inventory may qualify for an incentive. For Green Motor Rewinds, the participating electric motor service center is paid \$2/horsepower for eligible Green Motor Rewinds. A minimum of \$1/hp is paid by the service center to the Customer as a credit on the motor rewind invoice. The balance is retained by the service center.

**GMPG** = Green Motors Practices Group **HVAC** = Heating, Ventilating and Air Conditioning **VFD** = Variable Frequency Drive

## HVAC Equipment Incentive Table

IVAC Equipment Inc				Minimum Efficiency Requirement & Customer Incentive		
Equipment Type	Size Category	Sub-Category	\$25/ton	\$50/ton	\$75/ton	
Unitary Commercial Air Conditioners,	< 65, 000 Btu/hr (single phase)	Split system and single package		CEE Tier 2		
Air-Cooled	All equipment sizes (three phase)	Split system and single package		CEE Tier 1	CEE Tier 2	
Unitary Commercial Air Conditioners, Water and Evaporatively Cooled	All equipment sizes	Split system and single package		CEE Tier 1		
	≤ 8,000 Btu/hr	Single package	12.2 EER			
Packaged Terminal Air Conditioners	> 8,000 Btu/hr and < 10,500 Btu/hr	Single package	11.9 EER			
(PTAC)	≥ 10,500 Btu/hr and ≤ 13,500 Btu/hr	Single package	10.7 EER			
	> 13,500 Btu/hr	Single package	9.9 EER			
	$\leq$ 8,000 Btu/hr	Single package		12.2 EER and 3.4 COP		
Packaged Terminal Heat Pumps (PTHP)	> 8,000 Btu/hr and < 10,500 Btu/hr	Single package		11.5 EER and 3.3 COP		
(Heating & Cooling Mode)	≥ 10,500 Btu/hr and ≤ 13,500 Btu/hr	Single package		10.7 EER and 3.1 COP		
	> 13,500 Btu/hr	Single package		9.8 EER and 3.0 COP		
	< 65, 000 Btu/hr (single & three phase)	Split system and single package		CEE Tier 2		
Heat Pumps, Air- Cooled (Cooling Mode)	$\geq$ 65,000 Btu/hr (three phase)	Split system and single package		CEE Tier 1	CEE Tier 2	
(cooming initial)	$\geq$ 65,000 Btu/hr (three phase)	Split system and single package				
	< 65, 000 Btu/hr (single & three phase)	Split system and single package (See note 3)		CEE Tier 2		
Heat Pumps, Air- Cooled (Heating Mode)	< 65, 000 Btu/hr (single & three phase)	Split system and single package (See note 3)		CEE Tier 1	CEE Tier 2	
	$\geq$ 65,000 Btu/hr (three phase)	(See note 3)				
Heat Pumps, Water- Source (Cooling Mode)	< 135,000 Btu/hr	(See note 3)		CEE Tier 1		
Heat Pumps, Water- Source (Heating Mode)	< 135,000 Btu/hr	(See note 3)		CEE Tier 1		
Heat Pumps, Ground-Source or Groundwater- Source (Heating & Cooling Mode)	All sizes	(See note 3)		ENERGY STAR Qualified		

VRF Air-Cooled Heat Pumps (Cooling Mode)	All Equipment Sizes	Multisplit System or Multisplit System with Heat Recovery		CEE Tier 1
VRF Air-Cooled Heat Pumps (Heating Mode)	All Equipment Sizes	Multisplit System or Multisplit System with Heat Recovery (See note 3)		CEE Tier 1
VRF Water-Cooled Heat Pumps (Cooling Mode)	< 135,000 Btu/hr	Multisplit System or Multisplit System with Heat Recovery		CEE Tier 1
VRF Water-Cooled Heat Pumps (Heating Mode)	< 135,000 Btu/hr	Multisplit System or Multisplit System with Heat Recovery (See note 3)		CEE Tier 1
Ground Source or Groundwater-	A11 -	Open Loop	<b>\$25</b> 4	
Source Heat Pump Loop	All sizes	Closed Loop	\$25/ton	 

## Notes for HVAC Equipment incentive table:

1. Equipment that meets or exceeds the efficiency requirements listed for the size category in the above table may qualify for the listed incentive. Equipment must meet all listed efficiency requirements to qualify for the listed incentives.

2. PTHPs can replace electric resistive heating, which must be removed.

3. Incentives for heat pumps are available per ton of cooling capacity ONLY. No incentives are paid per ton of heating capacity. Heat Pumps must meet both the cooling mode and heating mode efficiency requirements to qualify for per ton cooling efficiency incentives.

4. Equipment size categories are specified in terms of net cooling capacity at AHRI standard conditions as determined by AHRI Standard 210/240 for units <65,000 Btu/hr, AHRI Standard 340/360 for units ≥65,000 Btu/hr, AHRI Standard 1230 for VRF systems, and AHRI Standard 310/380 for PTAC and PTHP units.

5. Ground and Water Source Heat Pumps must meet or exceed listed efficiency requirements when rated in accordance with ISO-13256-1 to qualify for the listed incentive.

6. Units rated only with an IPLV may qualify for the listed incentives if the value meets or exceeds the minimum IPLV established as part of the Consortium for Energy Efficiency Commercial Unitary Air Conditioning and Heat Pump specification effective January 16, 2009.

7. Efficiency requirements align with the Consortium for Energy Efficiency (CEE) Unitary Air-Conditioning and Heat Pump Specification for equipment with heating sections other than electric resistance. CEE minimum efficiency requirements are listed on Pacific Power's website.

**AHRI** = Air-Conditioning, Heating and Refrigeration Institute

**CEE** = Consortium for Energy Efficiency

**COP** = Coefficient of Performance

**EER** = Energy Efficiency Ratio

**HSPF** = Heating Seasonal Performance Factor

**HVAC** = Heating, Ventilation and Air-Conditioning

**IEER** = Integrated Energy Efficiency Ratio

**IPLV** = Integrated Part Load Value

**PTAC** = Packaged Terminal Air Conditioner

**PTHP** = Packaged Terminal Heat Pump **SEER** = Seasonal Energy Efficiency Ratio **VRF** = Variable Refrigerant Flow

Other HVAC Equipment and Controls Incentives						
Equipment Type	quipment Type   Size Category   Sub-Cat		Minimum Efficiency Requirement	Customer Incentive		
Evaporative Cooling	All sizes	Direct or Indirect		\$0.06/ CFM		
Indirect-Direct Evaporative Cooling (IDEC)	All sizes		Applicable system components must exceed minimum efficiencies required by energy code	\$0.15/kWh annual energy Savings (See Note 2)		
Chillers	All except chillers intended for backup service only	Serving primarily occupant comfort cooling loads (no more than 20% of process cooling loads)	Must exceed minimum efficiencies required by energy code	\$0.15/kWh annual energy Savings (See Note 3)		
Room Air Conditioner	Residential (used in a business)		See Home Energy Savings program	See Note 4		
365/366 day Programmable or Occupancy-based Thermostat	All sizes in portable classrooms with mechanical cooling	Must be installed in portable classroom unoccupied during summer months	365/366 day thermostatic or occupancy based setback capability	\$150/thermostat		
Occupancy Based PTHP/PTAC control	All sizes with no prior occupancy based control		See Note 5	\$50/controller		

(Retrofit only)			
Evaporative Pre- cooler (Retrofit Only)	For single air-cooled packaged rooftop or matched split system condensers only.	Minimum performance efficiency of 75%. Must have enthalpy controls to control pre-cooler operation. Water supply must have chemical or mechanical water treatment.	\$75/ton of attached cooling capacity

#### Notes for other HVAC equipment and controls incentive table:

1. Equipment that meets or exceeds the efficiency requirements listed for the equipment category in the above table may qualify for the listed incentive.

2. Incentives are paid at \$0.15/kWh annual energy savings. IDEC energy savings subject to approval by Pacific Power.

3. Incentives are paid at \$0.15/kWh annual energy savings. Chiller energy savings subject to approval by Pacific Power.

4. Refer to Pacific Power's Home Energy Savings Program for efficiency requirements and incentives for listed residential appliances used in a business.

5. Controller units must include an occupancy based control and include the capability to set back the zone temperature during extended unoccupied periods and set up the temperature once the zone is occupied.

**CFM** = Cubic Feet per Minute **IDEC** = Indirect Direct Evaporative Cooling **PTHP** = Packaged Terminal Heat Pump **PTAC** = Packaged Terminal Air Conditioner

Dunung Envelope (Retront) incentives				
Equipment Type	Category	Minimum Efficiency Requirement	Customer Incentive	
Cool Roof		ENERGY STAR Qualified	\$0.10/square foot	
Roof/Attic Insulation		Minimum increment of R-10 insulation	\$0.08/square foot	
Wall Insulation		Minimum increment of R-10 insulation	\$0.10/square foot	
Windows	Site-Built	U-Factor ≤ 0.30 and SHGC ≤ 0.33 (Glazing Only Rating)	\$0.34/square foot	
(See Note 3, 4)	Assembly	U-Factor ≤ 0.30 and SHGC ≤ 0.33 (Entire Window Assembly Rating)	\$0.34/square foot	
Window Film	Existing Windows	See Note 5	\$0. 15/kWh annual energy savings (See Note 5)	

#### **Building Envelope (Retrofit) Incentives**

#### Notes for retrofit building envelope incentive table:

1. Equipment that meets or exceeds the efficiency requirements listed for the equipment category in the above table may qualify for the listed incentive.

2. Building must be conditioned with mechanical cooling to be eligible for envelope incentives.

3. Energy performance of window assemblies and glazing products must be rated in accordance with NFRC. Site-Built metal window systems must include a thermal break within the frame or other appropriate NFRC certification to qualify for incentives. Skylights are not eligible to receive incentives.

4. Window square footage is determined by the dimensions of the entire window assembly, not just the window glass.

5. Incentives for window film are calculated based on film specifications and window orientation at \$0.15/kWh annual energy savings. Energy savings subject to approval by Pacific Power.

**NFRC** = National Fenestration Rating Council **SHGC** = Solar Heat Gain Coefficient

Equipment Type	Category	Minimum Efficiency Requirement	Customer Incentive
Cool Roof		ENERGY STAR Qualified	\$0.10/square foot
Roof/Attic Insulation		Minimum increment of R-5 insulation above code (See Note 5)	\$0.04/square foot
Windows	Site-Built	U-Factor $\leq 0.30$ and SHGC $\leq 0.33$ (Glazing Only Rating)	\$0.34/square foot
(See Note 3, 4)	Assembly	U-Factor ≤ 0.30 and SHGC ≤ 0.33 (Entire Window Assembly Rating)	\$0.34/square foot

#### Building Envelope (New Construction/Major Renovation) Incentives

#### Notes for building envelope (new construction/major renovation) incentives table:

1. Equipment that meets or exceeds the efficiency requirements listed for the equipment category in the above table may qualify for the listed incentive.

2. Building must be conditioned with mechanical cooling to be eligible for envelope incentives.

3. Window square footage is determined by the dimensions of the entire window assembly, not just the window glass.

4. Energy performance of window assemblies and glazing products must be rated in accordance with NFRC. Site-Built metal window systems must include a thermal break within the frame or other appropriate NFRC certification to qualify for incentives. Skylights are not eligible to receive incentives.

5. Compliance with the minimum efficiency requirements of Roof/Attic Insulation measure may be demonstrated with equivalent U-factors and is subject to Pacific Power approval.

**NFRC** = National Fenestration Rating Council **SHGC** = Solar Heat Gain Coefficient

		Minimum Efficiency	Customer
Equipment Type	Equipment Category	Requirement	Incentive
	Undercounter	ENERGY STAR Qualified	\$100
Commercial Dishwasher (High Temperature models w/ electric boosters Only)	Stationary Rack, Single Tank, Door Type		\$400
ciccule boosters only)	Single Tank Conveyor		\$1,000
	Multiple Tank Conveyor		\$500
	Full Size		\$400
Electric Insulated Holding Cabinet	3/4 Size	ENERGY STAR Qualified	\$300
	1/2 Size		\$200
Electric Steam Cooker	3-, 4-, 5- and 6-pan or larger sizes – Tier 1	ENERGY STAR Qualified	\$130
	3-, 4-, 5- and 6-pan or larger sizes – Tier 2	ENERGY STAR Qualified w/ Heavy Load Efficiency ≥ 68%	\$300
Electric Convection Oven		ENERGY STAR Qualified	\$350
Electric Griddle		ENERGY STAR Tier 2 Qualified	\$150
	6-15 pans	ENERGY STAR Qualified	\$1,000
Electric Combination Oven	16-20 pans	ENERGY STAR Qualified	\$275
	Tier 1	ENERGY STAR Qualified	\$200
Electric Commercial Fryer	Tier 2	ENERGY STAR Qualified w/Cooking Efficiency $\geq$ 85%, Idle Energy Rate $\leq$ 860 Watts	\$300
	Tier 1: Harvest Rate <500 lbs/day	ENERGY STAR Qualified	\$125
Ice Machines	Tier 1: Harvest Rate ≥ 500 lbs/day	ENERGY STAR Qualified	\$150
(Air-Cooled Only)	Tier 2: Harvest Rate <500 lbs/day	CEE Tier 2 Qualified	\$250
	Tier 2: Harvest Rate ≥ 500 lbs/day	CEE Tier 2 Qualified	\$400
Residential Refrigerator	Used in a business	See Home Energy Savings program	See Note 2
Residential Refrigerator/ Freezer Recycling	Used in a business	See residential refrigerator/ freezer recycling program	See Note 3
	0 < V < 15		\$25
Commercial Transparent Door	$15 \le V < 30$		\$50
Refrigerator	$30 \le V \le 50$	ENERGY STAR Qualified	\$75
8	$50 \le V$		\$125
	Chest Configuration		\$50
	0 < V < 15		\$25
Commercial Transparent Door	$15 \le V < 30$		\$50
Freezer	$30 \le V \le 50$	ENERGY STAR Qualified	\$75
	$50 \le V$		\$100
	Chest Configuration		\$100

## **Food Service Equipment Incentives**

LED Case Lighting (Retrofit Only)		LED replacing fluorescent lamp in refrigerated cases.	\$10/linear foot
Refrigerated Case Occupancy Sensor (Retrofit Only)		Installed in existing refrigerated case with LED lighting	\$1/linear foot
Demand Controlled Kitchen Ventilation Exhaust Hood (Retrofit Only)	Must be installed on commercial kitchen exhaust system.	Variable speed motors must be controlled to vary fan speed depending upon kitchen demand, as indicated by connected sensors.	\$0.15/kWh annual energy savings (See note 4)
Anti-Sweat Heater Controls	Low-Temp (Freezing) Cases	Technologies that reduce energy consumption of anti-sweat	\$20/linear foot (case length)
(Retrofit Only)	Med-Temp (Refrigerated) Cases	heaters based on sensing humidity.	\$16/linear foot (case length)

#### Notes for food service equipment incentives table:

1. Equipment that meets or exceeds the efficiency requirements listed for the equipment category in the above table may qualify for the listed incentive.

2. Refer to Pacific Power's Home Energy Savings Program for efficiency requirements and incentives for listed residential appliances used in a business.

3. Refer to Pacific Power's residential refrigerator and freezer recycling program (See ya later, refrigerator®) for requirements and incentives for listed appliance recycling measures for residential appliances used in a business.

4. Incentives are paid at \$0.15/kWh annual energy savings. Demand controlled kitchen ventilation exhaust hood energy savings subject to approval by Pacific Power.

CEE = Consortium for Energy Efficiency ASTM = American Society for Testing and Materials MDEC = Maximum Daily Energy Consumption V = Association of Home Appliance Manufacturers (AHAM) Volume in cubic feet

#### **Appliances Incentive Table**

Equipment Type	Equipment Category	Minimum Efficiency Requirement	Customer Incentive
U Efficiency Clather Wester	Residential (used in a business)	See Home Energy Savings program	
High-Efficiency Clothes Washer	Commercial (must have electric water heating)	ENERGY STAR® Qualified	\$100
Electric Water Heater	Residential (used in a business)	See Home Energy Savings p	orogram

Notes for appliances incentive table:

1. Equipment that meets or exceeds the efficiency requirements listed for the equipment category in the above table may qualify for the listed incentive.

2. Equipment must meet the efficiency rating standard that is in effect on the date of purchase.

3. Refer to Pacific Power's Home Energy Savings program for efficiency requirements and incentives for listed residential appliances used in a business.

**CEE** = Consortium for Energy Efficiency

	Incentives for Office Energy Enricency Measures				
Equipment Type	Replace	Minimum Efficiency Requirements	Customer Incentive		
Network PC Power Management Software		<ol> <li>Installed software must automatically control the power settings of networked personal computers (PC) at the server level</li> <li>The software must manage power consumption for each individual PC</li> <li>The software must include the capability to report energy savings results</li> <li>Incentives are for desktop computers only. Controlled laptop computers are not eligible for incentives.</li> </ol>	\$5 per controlled PC		
Smart Plug Strip		<ol> <li>Incentive applies to any plug strip that eliminates idle or stand-by power consumption of connected plug-load appliance through the use of an occupancy sensor, electric load sensor, or timer.</li> <li>Applies only to electric plug-load applications (e.g. computer monitors, desk lamps, etc.)</li> </ol>	\$15/qualifying unit		

#### **Incentives for Office Energy Efficiency Measures**

#### Notes for office energy efficiency measures incentives table:

1. Equipment that meets or exceeds the efficiency requirements listed for the equipment category in the above table may qualify for the listed incentive.

## Irrigation Incentives for Wheel Line, Hand Line, or Other Portable Systems (Retrofit Only)

Irrigation Measure	Replace	With	Limitations	Customer Incentive
New rotating, sprinkler replacing worn or leaking impact or rotating sprinkler	Leaking or malfunctioning impact rotating sprinkler	Rotating sprinkler	<ol> <li>Fixed-in-place (solid set) systems not eligible.</li> <li>Incentive limited to two sprinklers per irrigated acre.</li> </ol>	\$2.50 each
New or rebuilt impact Sprinkler replacing worn or leaking impact sprinkler	Leaking or malfunctioning impact sprinkler	New or rebuilt impact sprinkler	<ol> <li>New nozzle shall be included in new or rebuilt sprinkler.</li> <li>Rebuilt sprinkler shall meet or exceed manufacturer's specifications.</li> <li>Fixed-in-place (solid set) systems not eligible.</li> <li>Incentive limited to two sprinklers per irrigated acre.</li> </ol>	\$2.25 each
New nozzle replacing worn nozzle of same design flow or less on existing sprinkler	Worn nozzle	New nozzle of same design flow or less	<ol> <li>Flow rate shall not be increased.</li> <li>All nozzles on the wheel line or hand line shall be replaced.</li> <li>Fixed-in-place (solid set) systems not eligible.</li> <li>Incentive limited to two nozzles per irrigated acre.</li> </ol>	\$0.50 each
New flow control nozzle for impact sprinkler replacing existing nozzle or worn flow control nozzle of same design flow or less	Worn flow-controlling type nozzle	New flow-control nozzle	<ol> <li>Nozzle to be replaced may be fixed orifice or flow control type.</li> <li>New flow control nozzle shall have a flow rating equal to or less than the flow rating of the existing nozzle at 40 psi.</li> <li>All nozzles on the wheel line or hand line shall be replaced.</li> <li>Fixed-in-place (solid set) systems not eligible.</li> <li>Incentive limited to two nozzles per irrigated acre.</li> </ol>	\$2.75 each
New gasket replacing leaking gasket, including mainline valve or section gasket, seal, or riser cap (dome disc)	Leaking gasket	New gasket, including mainline valve or section gasket, seal, or riser cap (dome disc)	<ol> <li>New gasket must replace leaking gasket.</li> <li>Fixed-in-place (solid set) systems not eligible.</li> <li>Incentive limited to two gaskets per irrigated acre.</li> </ol>	\$2 each
New drain replacing leaking drain	Leaking drain	New drain, including drains on pivots and linears	<ol> <li>New drain must replace leaking drain.</li> <li>Fixed-in-place (solid set) systems not eligible.</li> <li>Incentive limited to two drains per irrigated acre.</li> </ol>	\$3 each
Cut and press or weld repair of leaking wheel line, hand line, or portable main line	Leak in wheel line, hand line, or portable main line	Cut and pipe press or weld repair	Invoice must show number of leaks repaired	\$10/repair
New or rebuilt wheel line leveler replacing leaking or malfunctioning leveler	Replace leaking or malfunctioning leveler	New or rebuilt leveler	<ol> <li>Applies to leaking or malfunctioning levelers only.</li> <li>For rebuilds, invoice must show number of rebuild kits purchased and installed.</li> </ol>	\$3 each

New or rebuilt wheel line feed hose replacing leaking wheel line feed hose	Leaking wheel line feed hose	New or rebuilt wheel line feed hose	<ol> <li>Applies to leaking wheel line feed hose only.</li> <li>For rebuilds, invoice must show number of rebuild kits purchased and installed.</li> </ol>	\$12 each
New Thunderbird wheel line hub replacing leaking wheel line hub	Leaking Thunderbird wheel line hub	New Thunderbird wheel -line hub	New hub must replace leaking hub	\$10 each

## Irrigation Incentives for Pivot and Linear Systems (Retrofit Only)

Irrigation Measure	Replace	With	Limitations	Customer Incentive
Low pressure sprinkler (e.g. rotating, wobbling, multy-trajectory spray) replacing impact sprinkler	Impact sprinkler	New low pressure sprinkler (on-board nozzle is considered part of sprinkler, not a separate item with additional incentive)	New sprinkler is of same design flow or less	\$3 each
Low pressure sprinkler (e.g. rotating, wobbling, multi-trajectory spray) replacing worn low pressure sprinkler	Worn low pressure sprinkler (e.g. rotating, wobbling, multi-trajectory spray)	New low pressure sprinkler (on-board nozzle is considered part of sprinkler, not a separate item with additional incentive)	1. New sprinkler is of same design flow or less.	\$1.50 each
Pressure regulator	Worn pressure regulator. May also add regulator where there had been none before.	New pressure regulator of same design pressure or less.	1. New regulator must be of same design pressure or less	\$3 each
Gooseneck as part of conversion to low pressure system		New gooseneck as part of conversion to low pressure system	Gooseneck shall be used to convert existing center pivot with sprinkler equipment mounted on top of the pivot to low pressure sprinklers with regulators on new drop tubes.	\$0.50 per outlet
Drop tube (3 ft minimum length)	Leaking drop tube	New drop tube (3 ft minimum length) OR add new drop tube as part of conversion to low pressure system	Drop tube or hose extension shall extend below the pivot lower brace or shall be a minimum of 3 feet in length, whichever is greater.	\$2 per drop tube
New center pivot base boot gasket replacing leaking base boot gasket	Leaking center pivot base boot gasket	New center pivot base boot gasket	<ol> <li>Gasket shall replace leaking gasket at the pivot point of the center pivot.</li> <li>No more than one gasket shall be claimed per pivot.</li> </ol>	\$125 each
New tower gasket replacing leaking tower gasket	Leaking tower gasket	New tower gasket	New gasket shall replace leaking tower gasket	\$4 each

# Irrigation Incentives for Any Type of System (Retrofit or New Construction, Including Non-agricultural Irrigation Applications)

Irrigation Measure	Replace	With	Limitations	Customer Incentive
Irrigation pump VFD	Replace	Add variable frequency drive to existing or new irrigation pump	<ol> <li>Pumps serving any type of irrigation water transport or distribution system are eligible – wheel lines, hand lines, pivots, linears, fixed-in- place (solid set).</li> <li>Both retrofit and new construction projects are eligible.</li> </ol>	\$0.15/kWh annual savings

#### Notes for irrigation incentive tables:

1. Equipment that meets or exceeds the requirements above may qualify for the listed incentive.

2. Except for the pump VFD measure, incentives listed here are available only for retrofit projects where new equipment replaces existing equipment (i.e. new construction is not eligible).

3 Except for the pump VFD measure, equipment installed in fixed-in-place (solid set) systems is not eligible. Incentive is limited to two units per irrigated acre.

4. Incentives are capped at 70 percent of Energy Efficiency Project Costs, and incentives will not be available to reduce the Energy Efficiency Project simple payback below one year. Energy savings and Energy Efficiency Project Costs are subject to Pacific Power approval.

**VFD** = Variable Frequency Drive

	Farm and Dairy Incentives				
Equipment Type	Equipment Category	Minimum Efficiency Requirements	Customer Incentive		
Automatic Milker Takeoffs (Retrofit Only)		Equipment must be able to sense milk flow and remove milker when flow reaches a pre- set level. The vacuum pump serving the affected milking units must be equipped with a VFD. Incentive is available for adding automatic milker takeoffs to existing milking systems, not for takeoffs on a brand new system where there was none before. Replacement of existing automatic milker takeoffs is not eligible for this listed incentive, but may qualify for a Custom Energy Efficiency Incentive.	\$235 each		
Agricultural Engine Block Heater Timers		Timer must be a UL-listed device and rated for a minimum of 15 amps continuous duty.	\$10 each		
	12-23" Diameter	Fan must achieve an efficiency level of 11 cfm/W	\$25/fan		
High Efficiency	24-35" Diameter	Fan must achieve an efficiency level of 18 cfm/W	\$35/fan		
Circulating Fans (See Note 2)	36-47" Diameter	Fan must achieve an efficiency level of 18 cfm/W	\$50/fan		
	≥48" Diameter	Fan must achieve an efficiency level of 25 cfm/W	\$75/fan		
Heat Recovery		Heat recovery unit must use heat rejected from milk cooling refrigeration system to heat water. Customer must use electricity for water heating.	\$0.15/kWh annual energy savings		
	12-23" Diameter	Fan must achieve an efficiency level of 11 cfm/W	\$45/fan		
High-efficiency Ventilation Fans	24-35" Diameter	Fan must achieve an efficiency level of 13 cfm/W	\$75/fan		
(See Note 2)	36-47" Diameter	Fan must achieve an efficiency level of 17 cfm/W	\$125/fan		
	≥48" Diameter	Fan must achieve an efficiency level of 19.5 cfm/W	\$150/fan		
Milk Pre-coolers		The equipment must cool milk with well- water before it reaches the bulk cooling tank.	\$0.15/kWh annual energy savings		
Programmable Ventilation Controllers		Controller must control ventilation fans based on temperature or other applicable factors such as humidity, odor concentration, etc	\$20/fan controlled		
Variable Frequency Drives for Dairy Vacuum Pumps (Retrofit Only)		VFD must vary motor speed based on target vacuum level. incentive available for retrofit only (i.e. new construction and replacement of existing VFD not eligible.).	\$165/hp		
Potato or Onion Storage Fan VFD		Add variable frequency drive to existing or new fan in potato or onion storage	\$0.15/kWh annual energy savings		

#### **Farm and Dairy Incentives**

#### Notes for farm and dairy incentives table:

1. Equipment that meets or exceeds the efficiency requirements above may qualify for the listed incentive.

2. Fan performance must be rated by an independent testing body in accordance with the appropriate ANSI/AMCA standards.

3. Incentives are capped at 70 percent of Energy Efficiency Project Costs and incentives will not be available to reduce the Energy Efficiency Project simple payback below one year. Energy savings and Energy Efficiency Project Costs are subject to Pacific Power approval.4. Except where noted, all equipment listed in the table is eligible for incentives in both new construction and retrofit projects.

AMCA = Air Movement and Control Association International, Inc.
ANSI = American National Standards Institute
VFD = Variable Frequency Drive
cfm = cubic feet per minute
W = watt

		Compressed Air	Incentives	
Equipment Category	Replace	With	Limitations	Customer Incentive
Low- Pressure Drop Filters	Standard coalescing filter	Rated Low-Pressure Drop Filter where: 1. Pressure loss at rated flow is $\leq$ 1psi when new and $\leq$ 3psi at element change 2. Particulate filtration is 100% at $\geq$ 3.0 microns and 99.98% at 0.1 to 3.0 microns, with $\leq$ 5 ppm liquid carryover 3. Filter is of deep-bed "mist eliminator" style, with element life $\geq$ 5 years 4. Rated capacity of filter is $\leq$ 500 scfm	1. Compressor must be $\geq 25$ hp and $\leq 75$ hp 2. Compressor discharge pressure setpoint must be reduced by 2 psi or more after installation of low pressure drop filter.	\$2/scfm
Receiver Capacity Addition	Limited or no receiver capacity (≤ 2 gallons per scfm of trim compressor capacity)	Total receiver capacity after addition must be > 2 gallons per scfm of trim compressor capacity	<ol> <li>Compressor system size ≤ 75 horsepower, not counting backup compressor(s).</li> <li>Trim compressor must use load/unload control, not inlet modulation or on/off control.</li> <li>Systems with VFD compressor or using variable displacement compressor are not eligible.</li> </ol>	\$3/gallon above 2 gallons per scfm
Cycling Refrigerated Dryers	Non-cycling refrigerated dryer	Cycling refrigerated dryer	<ol> <li>Rated dryer capacity must be ≤ 500 scfm</li> <li>Dryer must operate exclusively in cycling mode and cannot be equipped with the ability to select between cycling and non-cycling mode.</li> <li>Refrigeration compressor must cycle off during periods of reduced demand</li> </ol>	\$2/scfm
VFD Controlled Compressor	Fixed speed compressor	≤ 75 hp VFD controlled oil- injected screw compressor operating in system with total compressor capacity ≤ 75 hp, not counting backup compressor capacity	<ol> <li>Total compressor capacity in upgraded system is ≤ 75 hp, not counting backup compressor capacity.</li> <li>Compressor must adjust speed as primary means of capacity control</li> </ol>	\$0.15/kWh annual energy savings
Zero Loss Condensate Drains	Timer drain	Zero loss condensate drain (See Note 4)	Drain is designed to function without release of compressed air into the atmosphere. Any size system is eligible – there is no restriction on compressor size.	\$100 each
Outside Air Intake	Compressor intake drawing air from compressor room	≤ 75 hp compressor where permanent ductwork between compressor air intake and outdoors	Ductwork must meet manufacturer's specifications, which may include: (a) $\leq 0.25$ " W.C. pressure loss at rated flow, and (b) allow use of compressor room air during extremely cold outside air conditions	\$6/hp
Compressed air end use reduction	Inappropriate or inefficient compressed air end uses	Functionally equivalent alternatives or isolation valves	Any size system is eligible – there is no restriction on compressor size.	\$0.15/kWh annual energy savings

## **Compressed Air Incentives**

#### Notes for compressed air incentive table:

1. Equipment that meets or exceeds the efficiency requirements above may qualify for the listed incentive.

2. Except for the zero loss condensate drain and compressed air end use reduction measures, eligibility for incentives is limited to compressed air systems with total compressor capacity of 75 hp or less, not including backup compressor capacity that does not normally run.

3. Incentives are capped at 70 percent of Energy Efficiency Project Costs and incentives will not be available to reduce the Energy Efficiency Project simple payback below one year. Energy savings and Energy Efficiency Project Costs are subject to Pacific Power approval.

4. Zero Loss Condensate Drains purchased as an integral part of another measure are eligible for the incentive shown above.

hp = horsepower
PPM = parts per million
PSI = pounds per square inch
scfm = cubic feet of air per minute at standard conditions (14.5 psia, 68°F, and 0% relative humidity)
VFD = Variable Frequency Drive

Equipment Type	Replace	<b>Replace</b> With		
Adaptive refrigeration control	Conventional controls (defrost timeclock, space thermostat, evaporator fan control, if any, thermal expansion valve in some instances)	Adaptive refrigeration controller and, in some instances, electric expansion valve	\$0.15/kWh annual energy savings	
Fast acting door	Manually operated door, automatic door with long cycle time, strip curtain, or entryway with no door in refrigerated/conditioned space	Fast acting door	\$0.15/kWh annual energy savings	
Wastewater – low power mixer	Excess aeration capacity	Extended range circulator	\$0.15/kWh annual energy savings	

#### Incentives for Wastewater and other Refrigeration Energy Efficiency Measures

#### Notes for other energy efficiency measures incentives table:

1. Equipment that meets or exceeds the efficiency requirements above may qualify for the listed incentive.

2. Incentives are capped at 70 percent of Energy Efficiency Project Costs and incentives will not be available to reduce the Energy Efficiency Project simple payback below one year. Energy savings and Energy Efficiency Project Costs are subject to Pacific Power approval.

Measure	Category	Eligibility Requirements	Maximum Incentive <sup>13</sup>
	Retrofit (Lamp/Ballast)	4' CEE Qualified Reduced Wattage Lamp and CEE Qualified Ballast included on qualified ballast list	\$140/Fixture
	Delamp	4' CEE Qualified Reduced Wattage or High Performance Lamp and CEE Qualified Ballast. Must remove one or more lamps. To delamp an existing fixture, the lamp and all corresponding sockets must be permanently disabled.	\$120/Fixture
T8 Fluorescent	T12 Conversion (Kit/Lamp/Ballast)8' T12 to (2) 4' CEE Qualified Reduced Wattage or High Performance T8 Lamps and CEE Qualified Ballast.		\$150/Fixture
	Relamp	Lamp wattage reduction $\geq$ 3 Watts, No ballast retrofit	\$15/Lamp Installed
	Replacement – High Bay	Fixture with less than six (6) lamps: 4' CEE Qualified High Performance Lamp. Must replace T12HO/VHO, Incandescent or HID	\$300/Fixture
	(Fixture/Lamp/Ballast)	Fixture with six (6) or more lamps: 4' CEE Qualified High Performance Lamp. Must replace T12HO/VHO, Incandescent or HID	\$350/Fixture
T5 Fluorescent	Replacement – T5 Standard	4' Nominal Lamp $\leq$ 28 Watts, Ballast Factor $\leq$ 1.0	\$250/Fixture

# Enhanced Incentives for Small Businesses (Retrofit only)<sup>12</sup>

<sup>&</sup>lt;sup>12</sup> Incentives for measures in this table are available only to Small Business customers as defined in the incentives table on page 2.

<sup>&</sup>lt;sup>13</sup> Actual incentives are subject to change and will be determined by Pacific Power on a component level basis on no less than an annual basis, will not exceed the values in this table, and will be posted on the Pacific Power website.

	(Fixture/Lamp/Ballast)		
	Relamp	Lamp wattage reduction $\geq$ 3 Watts, No ballast retrofit	\$22/Lamp Installed
	Replacement – High Bay	Fixture with less than six (6) lamps: Must replace T12HO/VHO, Incandescent or HID	\$375/Fixture
	(Fixture/Lamp/Ballast)	Fixture with six (6) or more lamps: Must replace T12HO/VHO, Incandescent or HID	\$450/Fixture
LED	Replacement/Retrofit - Recessed Downlight (Fixture or Kit)	Must replace existing incandescent or fluorescent, LED must be listed on qualified equipment list	\$150/Fixture
	Replacement - Exit Signs	Must replace incandescent or fluorescent	\$100/Sign
Lighting	Wall Occupancy Sensor Retrofit	PIR, Dual Tech	\$100/Sensor
Control	Ceiling Occupancy Sensor Retrofit	PIR, Dual Tech	\$220/Sensor

#### Notes for enhanced incentives for small business customers:

- 1. To be eligible for the incentives listed, the new lighting system must use less energy than the existing lighting system replaced or the baseline lighting system as determined by the Company.
- 2. Incentives are capped at 80 percent of Energy Efficiency Project Costs. Energy Efficiency Project Costs are subject to Pacific Power approval.
- 3. Incentives for T8 Fluorescent Premium Delamps may not be combined with other linear fluorescent lamp or fixture incentives. Complete fixture removals are not eligible.
- 4. Incentives for T8 and T5 Fluorescent Relamps may not be combined with other linear fluorescent lamp or fixture incentives and will only be paid once per facility.
- 5. Qualified equipment lists referenced in the above table are posted on the Washington energy efficiency program section of Pacific Power's website.

**BF** = Ballast Factor **CEE** = Consortium for Energy Efficiency **CFL** = Compact Fluorescent Lamp **CMH** = Ceramic Metal Halide HID = High Intensity Discharge (e.g. Mercury Vapor, High Pressure Sodium, Metal Halide) **HO** = High Output **LED** = Light-Emitting Diode

**PSMH** = Pulse-Start Metal Halide

**VHO** = Very High Output

#### Mid-Market Incentives<sup>14</sup>

Measure	Category	Eligibility Requirements	Maximum Incentive <sup>15</sup>
	Screw-in A-Lamp, Medium Base	LED must be listed on qualified equipment list	Up to \$7/Lamp
	Screw-in PAR Reflector Lamp	LED must be listed on qualified equipment list	Up to \$15/Lamp
	Screw-in BR Reflector Lamp	LED must be listed on qualified equipment list	Up to \$13/Lamp
LED	Pin-based MR16 Reflector Lamp	LED must be listed on qualified equipment list	Up to \$10/Lamp
	Screw-in Candelabra/Globe Lamp	LED must be listed on qualified equipment list	Up to \$10/Lamp
	Recessed Downlight Kit	LED must be listed on qualified equipment list	Up to \$15/Fixture

Notes for mid-market incentives:

1. Incentives are capped at 70 percent of qualifying equipment cost. Qualifying equipment costs are subject to Company approval.

2. Qualified equipment lists referenced in the above table are posted on the Washington energy efficiency program section of the Company's website.

<sup>&</sup>lt;sup>14</sup> Incentives for measures in this table are available through Company-approved retailers/distributors or a customer application process.

<sup>&</sup>lt;sup>15</sup> Actual incentives will be posted on the Company website and subject to change with 45 days' notice. Change notices will be prominently displayed on program website and communicated to participating distributors and Trade Allies.

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Schedule 140 NON-RESIDENTIAL ENERGY EFFICIENCY	

(continued)

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Issued by Pacific Power & Light Company

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Title: Vice President, Regulation

WN U-75

Original Sheet No. 140.1

## Schedule 140 NON-RESIDENTIAL ENERGY EFFICIENCY

#### PURPOSE:

Service under this Schedule is intended to maximize the efficient utilization of the electricity of new and existing non-residential loads through the installation of energy efficiency measures and energy management protocols.

## APPLICABLE:

To service under the Company's General Service Schedules 24, 33, 36, 40, 47T, 48T, 53 and 54 in all territory served by the Company in the State of Washington. This Schedule is applicable to new and existing non-residential facilities.

## CUSTOMER PARTICIPATION:

Customer participation is voluntary and is initiated by following the participation procedures on the Washington energy efficiency program section of the Company website. The Company shall have the right to qualify participants, at its discretion, based on criteria the Company considers necessary to ensure the effective operation of the measures and utility system. Criteria may include, but will not be limited to cost effectiveness.

#### DESCRIPTION:

Ongoing program to provide incentives for a variety of equipment and operational improvements located in non-residential facilities. Periodic program changes will be made to insure or enhance program cost effectiveness as defined by the Company.

## QUALIFYING MEASURE:

Measures which when installed in an eligible facility result in verifiable electric energy efficiency improvement compared to existing equipment or baseline equipment as determined by the Company. The baseline will be determined with reference to existing equipment, applicable state or federal energy codes, industry standard practice and other relevant factors.

## QUALIFYING ENERGY MANAGEMENT:

Operational improvements which when implemented in an eligible facility result in verifiable electric energy savings compared to standard operations as determined by the Company.

## PROVISIONS OF SERVICE:

(1) Qualifying equipment or services, incentive amounts, and other terms and conditions will be listed on the Washington energy efficiency program section of the Company website and may be changed by the Company with at least 45 days notice. Such changes will be prominently displayed on the Washington energy efficiency program section of the Company website and include a minimum 45 day grace period for processing prior offers.

## PROVISIONS OF SERVICE: (continued)

(2) Company may elect to offer incentives through different channels and at different points in the sales process other than individual Energy Efficiency Incentive Agreement/Offer Letter(s) prior to

(continued)

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equipment purchase. The differences will depend on and will be consistent for all equipment of similar type.

- (3) Incentives may be offered year-round or for selected time periods.
- (4) Equipment or services receiving an incentive under this program are not eligible for incentives under other Company programs.
- (5) Company will employ a variety of quality assurance techniques during the delivery of the program. They will differ by measure and may include pre and post installation inspections, phone surveys, and confirmation of Owner/Customer and equipment eligibility.
- (6) Company may verify or evaluate the energy savings of installed/implemented measures. This verification may include a telephone survey, site visit, review of facility operation characteristics, and pre- and post-installation of monitoring equipment and as necessary to quantify actual energy savings.
- (7) Energy Project Manager co-funding is available according to the terms posted on the Washington Energy Efficiency program page of the Company website.
- (8) Incentives will not be made available for fuel switching by Owner/Customer.

## MINIMUM EQUIPMENT EFFICIENCY:

Retrofit energy efficiency projects must meet minimum equipment efficiency levels and equipment eligibility requirements of qualifying equipment that are listed on the Washington energy efficiency program section of the Company website.

## ELECTRIC SERVICE REGULATIONS:

Service under this Schedule will be in accordance with the terms of the Electric Service Agreement between the Customer and the Company. The Electric Service Regulations of the Company on file with and approved by the Utilities & Transportation Commission of the State of Washington, including future applicable amendments, will be considered as forming a part of and incorporated in said Agreement.

(continued)

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# **Other Programs & Initiatives**

This section of the business plan includes information on the Company's Energy Education in Schools program, a general "education only" program; NEEA, an external group partly funded through Company dollars; and Production Efficiency, energy efficiency improvements at Company owned non-hydro generation facilities serving the Company's Washington territory.

# **Energy Education in Schools**

## Years of Implementation

This is a new "education only" program that replaced the previous "education and savings" program which ran from April 2003 through June 2012. The new education program, Be *wattsmart*, Begin at Home, was implemented with school presentations beginning in February 2013 (See "Year One Timeline" below under "Program Details"). Program costs are reflected in Tables 1, 2 and 3 of this report.

## Program Description

The Company has contracted with the National Energy Foundation (NEF) to implement the Be *watt*smart, Begin at Home program in schools during the 2012-13, 2013-14, and 2014-15 school years.

Program costs fall under Paragraph (7)(d) in Order 01 of Docket UE-132047, Conservation Efforts without Approved EM&V Protocol, where the Company can spend up to ten (10) percent of its conservation budget on programs whose savings impact has not yet been measured provided the overall portfolio of programs still pass the Total Resource Cost as described in Paragraph (10)(a) of the same Order 01.

NEF is a non-profit corporation with over 36 years providing energy education and awareness. The mission of NEF is to "cultivate and promote an energy literate society".

## Program Changes

The Company's contract with National Energy Foundation (NEF) concluded with the Fall 2014 school assembly presentations and the delivery of final reports in early 2015. In order to continue the education program for the 2015/2016 school year, the Company issued a competitive RFP which was released in March, 2015. NEF was the successful bidder retaining program implementation responsibilities for the next 3 years. There are no plans at this time to change the fundamentals of the education program.

## **Evaluation Information**

As this is an "education only" initiative, no third-party impact evaluation is anticipated beyond verification that the program is being delivered as reported. See "household audits cards" in "Program Details" section below.

## Program Details

The centerpiece of the program is a series of 45 to 60 minute grade-level presentations focusing on energy literacy and energy efficiency. The targeted grade levels are 4<sup>th</sup> or 5<sup>th</sup> grade based on

feedback from the state office of education. The school visit includes a custom designed presentation and hands-on group activities. Teachers receive a packet of instructional materials in advance of the school presentations to assist with the energy literacy education.

The school presentations are designed to get students "thinking" about energy and energy efficiency. In addition, an integrated follow-up to the school presentations will be provided through a home audit and household audit activity that is intended to provide students and their parents with an opportunity to "act" on the information they have learned. Students are provided informational booklets and a household audit activity to fill out regarding the energy use and energy efficiency topics they were taught. Students return the household audit report to their teachers, who in turn submit them to NEF. NEF provides teachers with an incentive for collecting the household audit cards receive a \$50 mini-grant for their school. Those returning 50-79% of the household audit cards receive a \$25 mini-grant for their school. The data is summarized and reported to determine energy efficiency behavioral data and other program participation information.

Program Metrics per YearTotal number of schools:apTotal number of students:apPercent of eligible schools reached:apTotal teachersapTarget return rate - Home Energy Checklistsap

approximately 50 approximately 4,000 approximately 80 percent approximately 160 approximately 65 percent

Anticipated Outcomes

- Teachers, students, and families become more energy literate, particularly in the understanding of energy efficiency.
- Teachers, students, and families learn the importance of being responsible energy stewards for the future of their community, state, country and planet.
- Teachers, students, and families make a commitment to use energy more wisely at home, at school, at work, and in the community.
- A culture of energy efficiency will be developed among teachers, students, and families.
- Continuous program improvement from year to year as identified through reporting and lessons learned.

# **Northwest Energy Efficiency Alliance**

## Years of Implementation

NEEA has been serving the Northwest region of Oregon, Washington, Idaho, and Montana since 1997.

## Program Description

NEEA is a non-profit corporation supported by, and working in collaboration with, the Bonneville Power Administration, Energy Trust of Oregon and more than 100 Northwest utilities including Pacific Power.

## Program Details

NEEA works in collaboration with its funders and other strategic market partners to accelerate the innovation and adoption of energy-efficient products, services, and practices.

Cost includes both Pacific Power's direct funding of NEEA and the Company's internal management costs. NEEA 2014 expenditures are based on Pacific Power's actual costs as invoiced by NEEA. NEEA's 2015 expenditures are based on Pacific Power's regional share (based on sales and customer counts) of the budget (from the 2015-2019 Business and Strategic Plan<sup>16</sup>). Preliminary 2014 savings were provided by NEEA and align with savings provided in 2014 annual report and utilize technical assumptions used to provide the original forecast. 2015 savings are based on Pacific Power's regional share from NEEA's 2015-2019 Business and Strategic Plan.

See Appendix 9 to the Biennial Conservation Plan for more detail on NEEA's forecast and savings calculation methodology and Pacific Power's regional savings share. See the Biennial (2014-2015) Conservation Target section of the Biennial Conservation Plan for Pacific Power treatment of NEEA savings consistent with the order received in docket UE-100170.

In summary NEEA's plan to accomplish this goal includes:

- Building and leveraging relationships to influence the market.
- Designing and executing strategic market interventions to expand the availability and demand for energy efficient products, services and practices.
- Identifying, developing and advancing emerging opportunities to fill the pipeline for energy efficiency.
- Delivering education and training to expand market capacity to deliver and maintain energyefficient products, services and practices.
- Facilitating regional coordination, collaboration and knowledge sharing to align interests and accelerate energy efficiency efforts.
- Demonstrating and promoting the value of energy efficiency to increase demand.
- Developing market intelligence and resources to help NEEA partners achieve their goals.

<sup>&</sup>lt;sup>16</sup> Approved June 20, 2014, Appendix 3 – Budget Detail

• Advancing the adoption and implementation of increasingly efficient energy codes and standards to lock in long-term savings.

NEEA has more than a dozen initiatives under way as outlined in their 2010-2014 and 2015-2019 Business and Strategic Plans. More information on NEEA's initiatives and business and strategic plans can be found at the following on the NEEA website:

- Initiatives: <u>http://neea.org/initiatives</u>
- Business Plans:
  - o 2010-2014 http://neea.org/docs/marketing-tookits/neea-business-plan-2010-2014.pdf
  - o 2015-2019 <u>http://neea.org/docs/default-source/default-document-library/neea-2015-</u> <u>19-business-plan---board-approved.pdf?sfvrsn=2</u>
- Strategic Plans:
  - o 2010-2014 http://neea.org/docs/marketing-tookits/neea-strategic-plan-2010-2014.pdf
  - o 2015-2019 <u>http://neea.org/docs/default-source/default-document-library/neea-2015-2019-strategic-plan-board-approved.pdf?sfvrsn=2</u>

# **Production Efficiency**

# Years of Implementation

The Company began a detailed study of the potential energy savings from production efficiency in 2011; with the initial implementation of identified projects beginning in 2012. The Company currently anticipates the complete acquisition of cost effective production efficiency energy savings in its Washington service territory by 2015. The initial delay was due to the necessity of obtaining approvals from joint owners.

## Program Description

In 2011, the Company began studying potential energy efficiency upgrades to the plant electrical systems at thermal and wind power production facilities. Pacific Power fully owns one thermal plant that provides power to Washington State, Chehalis, as well as four wind projects. In addition, the Company jointly owns two thermal plants that also provide power to Washington State. All facilities were reviewed as a part of the potential assessment exercise.

## Program Details

Project work began in 2012 at the Chehalis power plant for the 2012-13 biennium. The Company has been working with joint owners at Hermiston and Jim Bridger to identify projects approved for construction in the 2014-15 and later biennia. A key component of obtaining approval was to develop a cost-effective methodology that would be acceptable to all parties involved. The lighting upgrade project identified for the Jim Bridger plant was not approved by the joint owner. The desire is to wait until LED lighting is cost-effective and upgrade to that technology. The remaining facilities owned by the Company show no significant efficiency improvements available.

The following table details the specific projects identified for completion at the Hermiston facility in the 2014-2015 biennium.

Description	MWh/yr	Net Present Benefit (\$)	Total Resource Cost Test
HVAC Upgrades	3	\$2461	2.08
Compressed Air Dryer Controls	13	\$449	1.9
Lighting	5	\$1,477	1.0

The following table provides information on the allocation methodology used at Hermiston (projects included the current biennial period)

Location	Energy Conservation Measure	Plant Level Savings (MWh/yr)	Percent Owned by PacifiCorp	Washington Cost Allocation	PacifiCorp Potential Savings in Washington (MWh/yr)
	HVAC Upgrades	30	50%	22.47%	3
Hermiston Plant	Compressed Air System Upgrades	120	50%	22.47%	13
	Lighting	42.4	50%	22.47%	5

As noted in the 2014-2023 Conservation Target Report the Company's current West Control Area Allocation percentage is 22.47 percent for the Hermiston plant. The percentage is subject to change annually based on Washington's share of Pacific Power's loads in the west (Washington, Oregon and California). The table utilizes the most current percentages to calculate Washington's share of these projects for the purposes of developing a ten-year conservation forecast and biennium target.

# **Customer Outreach and Communications**

## Years of Implementation

In 2014, the Company continued its *watt*smart communications campaign, promoting the demandside management through advertising and outreach. The *watt*smart program was put into action to meet the program design principle conditions of Order 02 in Docket UE-100170 specific to energy efficiency program outreach.

## Program Description

The conditions for outreach for programs required Pacific Power to establish a strategy for informing participants about program opportunities. The *watt*smart communications campaign was designed to create awareness of the importance of being energy efficient, and to help increase participation in the Company's demand-side management programs. The programs are funded through the system benefit charge adjustment (Schedule 191) collected on customer bills.

## Program Details

Provided in the table below is a summary of the media channels that were used to deliver the *watt*smart campaign in 2014.

Communication Channel	Value to Communication Portfolio
Television	Advertisements were rotated, both 30-second and 15-second TV spots, with an
	average of 475 television placements each week from January through
	February, April through June, and November through December 2014. Stations
	on which campaign spots were aired include: KAPP (ABC), KIMO (CBS),
	KNDO (NBC), KUNW(UNIV) and Charter (Cable). Reach: 92.2% .
	Frequency: 17.8
Radio	An average of 200 radio spots per week from January through February, April
	through June, and November through December 2014. Radio stations on which campaign spots were aired include: KARY-FM (Oldies), KFFM-FM
	(Contemporary Hits), KIT-AM (News Talk), KRSE-FM (Classic Rock),
	KXDD-FM (Country), KZTA-FW (Mexican Regional) Reach: 64%
	Frequency: 11.0
Newspaper	Newspaper placements included: Dayton Chronicle, The East Washingtonian,
	La Voz Hispanic News, The Waitsburg Times, Walla Walla Union Bulletin and
	Yakima Herald-Republic.
Website:	Pacific Power's wattsmart website, pacificpower.net/wattsmart, and
Pacificpower.net/wattsmart	promotional URL bewattsmart.com link directly to the energy efficiency
Bewattsmart.com	landing page and fulfill the campaign's call-to-action to engage customers in
	the Company's energy efficiency programs. These sites further support all other forms of communications by serving as a source for detailed information
	regarding the company's program and other energy efficiency opportunities.
Twitter	Other interactive campaign elements like online media and social media will
	work with traditional media to enhance the campaign by driving traffic to the
	program websites. Build awareness for early adopters regarding energy
	efficiency tips and post Tweets on a weekly basis.
Facebook	Facebook is used to build awareness for early adopters regarding energy
	efficiency tips and a location to share information. Information and tips posted
	three times a week. We also started utilizing promoted posts and mobile posts
	to get a better reach for posts.
Other Online	Supports the broadcast and print media while also increasing awareness for
	early adopters who are online and are likely to be receptive to energy saving

messaging. Some of these uses include banner ads on local sites, blogs,
behavioral ad targeting, and pay-per-click ad placements.

The objectives of the communications and outreach campaign in the 2014-15 biennium are to increase awareness of the availability of energy efficiency programs, cash incentives and resources in order to boost participation and achieve energy conservation targets in Washington and promote customer conservation and increase participation and savings through Pacific Power *watt*smart demand-side management programs.

The ongoing communications strategy uses an integrated communications approach to reach customers with program information effectively and efficiently throughout the year. Information will be disseminated through a combination of mass media advertising, bill statement communications, web communications, community outreach, public relations, retailer outreach, trade ally outreach/training, nonprofit energy assistance agencies, direct mail, social media and one-on-one contacts. These communications are consistent with our messaging to maximize all customer touch-points, tailor educational messages to the season and encourage customers to take action.

The Company will continue an integrated advertising campaign featuring *watt*smart energy efficiency messaging in the Yakima and Walla Walla market areas targeting residential, low-income and small/mid-size business customers. In 2014 we developed new creative content for all of the above components. The new creative content launched the week of May 5, 2014 and ran for 3 weeks. It ran again in November and December 2014.

The 2015 Communications and Outreach plan was reviewed with the demand-side advisory group at the October 30, 2014, quarterly meeting. The 2015 plan contains all the same components of the 2014 plan with the additional focus on Facebook advertising, an increased digital presence and a decrease in newspaper and magazine advertising. The Company refined the creative developed in 2014 and developed some additional Spanish language communications.

# **Cost Effectiveness**

The cost effectiveness of individual programs proposed for the 2014-2015 biennium period and the portfolio views described below was assessed based on forecasted expenditures and energy savings.

Cost effectiveness is provided at the following levels:

- Individual program<sup>17</sup> or initiative<sup>18</sup> level
- Residential energy efficiency portfolio (Company programs)
- Non-residential energy efficiency portfolio( Company programs)<sup>19</sup>
- Total Company portfolio with portfolio costs added
- Total Company portfolio with portfolio costs and non-energy benefits added
- Total Company portfolio with portfolio costs and NEEA added
- Total Company portfolio with portfolio costs, NEEA and non-energy benefits added

Forecasted energy savings utilized in this analysis are gross savings and the impact of line losses is indicated with an "at site" or "at generation" designation. Line losses for retail customer programs are based on the Company's 2012 line loss study. The line loss impact for the distribution efficiency effort is specific to the affected portion of the distribution system and was calculated by the Pacific Power engineering group. There are no assumed line losses for production efficiency projects. All cost effectiveness calculations utilize a Net-to-gross ratio of 1.0 consistent with the Council's methodology. The energy savings attributed to each program are shaped according to specific enduse savings (the hourly calculation of when energy is used for the various end-use measures from which the savings are derived). Program costs and the value of the energy savings are then compared on a present value basis with the Company's 2013 Integrated Resource Plan ("IRP") calculated decrement values for demand-side resource savings and avoided capacity investments. The energy efficiency resource decrement values are fully shaped to represent the 8,760 hourly values that exist within a calendar year. By matching the hourly savings with the hourly avoided costs, both energy and capacity impacts of energy efficiency savings are recognized.

Costs utilized in the portfolio analysis are those with no direct energy savings attributed to them and include Energy Education in Schools, Customer outreach/communications, Program Evaluations, and administration of prior programs.

Costs utilized in the cost effectiveness analysis for production efficiency in non-hydro generating facilities are estimated implementation costs for the projects which will be recovered outside the System Benefits Charge. The Technical Reference Library and potential study update costs required by I-937 are considered initiative compliance costs rather than program costs and will not be included in the determination of the demand-side management program or portfolio cost effectiveness.

<sup>&</sup>lt;sup>17</sup> Low Income Weatherization, Refrigerator Recycling, Home Energy Savings, Home Energy Reports

<sup>&</sup>lt;sup>18</sup> NEEA

<sup>&</sup>lt;sup>19</sup> FinAnswer Express and Energy FinAnswer were combined for analytical purposes in anticipation of consolidation

The five California Standard Practice Manual cost effectiveness tests as modified in the Northwest were utilized in the cost benefit analysis.

Additional information for the cost effectiveness assessment of each program, initiative and the portfolios are available in Appendix 1 to this document.

# Cost Effectiveness Discussion for Revision 4 of the Business Plan

Cost effectiveness of individual programs proposed for the 2014-15 biennium was assessed based on forecasted expenditures and energy savings reported in November 1, 2013 Business Plan.

Final cost-effectiveness at program and portfolio levels for 2014 were provided in the Company's 2014 Annual Report on Conservation Acquisition in March 2015.

Cost effectiveness for expanding the residential refrigerator recycling program to include business customer pickups was discussed in Advice No. 14-02 provided on February, 28, 2014. Since this change did not adjust unit energy savings or increase unit costs, cost-effectiveness was not re-calculated.

Cost effectiveness of the *watt*smart Business improved lighting retrofit incentive offer specifically for small business customers receiving electric service on Schedule 24 was provided during the flexible tariff change process initiated on August 15, 2014.

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Cost effectiveness of the Home Energy Reports program extension was provided in Attachment A of filed Business Plan revision filed on August 20, 2014.

Refrigerator Recycling Program - A cost effectiveness analysis for the two eligible appliance types (refrigerators and freezers) and two proposed channels (residential and proposed retailer or secondary market intervention channel) was provided as Attachment 2 of the Company's November 26, 2014, filing to add retailer pickups to the program.

Cost effectiveness of adding midstream lighting incentives to the wattsmart Business program was provided to the demand-side advisory group on March 11, 2015, during the flexible tariff change process initiated on April 17, 2015 (effective June 1, 2015).

Overall, the projected Conservation portfolio costs are up \$347,570 from the November 2013 forecasted expenses<sup>20</sup> roughly 20 percent. The Company's conservation savings however are up by 23% and total costs, inclusive of portfolio costs increases, only thirteen percent. Since the benefits (energy savings) have increased by a higher percentage than the total costs, the impacts of the cost increases on portfolio economics should be positive therefore the Company does not believe revised portfolio economics are needed at this time.

<sup>&</sup>lt;sup>20</sup> The variance is from the correct total portfolio expense as noted on page 8 of this Revision 4.

	No	v 2013 &			(	C <b>umul ati ve</b>
Initiative/Program	Ma	r 2014	Nov 2014	Sept 2015		Variance
Be wattsmart, Begin at Home	\$	120,000	\$ 119,000	\$ 120,887	\$	(887)
Customer outreach/communication	\$	500,000	\$ 500,000	\$ 499,791	\$	209
Program Evaluations	\$	968,000	\$ 1,035,814	\$ 1,231,530	\$	(263,530)
Potential study update/analysis	\$	150,000	\$ 142,000	\$ 132,029	\$	17,971
Measure data documentation	\$	10,400	\$ 105,293	\$ 114,733	\$	(104,333)
Admin. of prior programs	\$	3,000	\$ -	\$ -	\$	3,000
Total Portfolio-Level Expenses	\$	1,751,400	\$ 1,902,107	\$ 2,098,970	\$	(347,570)

# 2-Year Conservation Portfolio Costs (current forecast compared to prior forecasts)

For ease of reference, the cost-effectiveness of individual programs or initiatives for the 2014-15 biennium period are provided in the Program/Initiative order provided below. Portfolio cost effectiveness is also included. Analysis dates are the dates found on the memos.

Program/Initiative	Last Analysis Date
Low Income Weatherization	October 25, 2013
See ya later, refrigerator®	October 25, 2013
See ya later, refrigerator® adding retailer pickup	November 13, 2014
Home Energy Savings	October 25, 2013
Home Energy Reports – extension	June 18, 2014
Home Energy Reports – expansion	July 15, 2014
wattsmart Business	October 29, 2013
<i>watt</i> smart Business – small business lighting offer	June 26, 2014
<i>watt</i> smart Business – addition of mid stream lighting	March 6, 2015
NEEA	October 28, 2013
Production Efficiency Initiative	November 1, 2013 <sup>21</sup>
Portfolio	October 29, 2013

<sup>&</sup>lt;sup>21</sup> Provided as Appendix 2 of the business plan

# Appendix 1 Program and Portfolio-Level Cost-Effectiveness

See Cost Effectiveness Discussion in prior section

# Appendix 2 Production Efficiency Economic Evaluation Methodology

The Company provides power to Washington customers through the West Control Area Allocation Methodology. Inherent in this methodology is the reality that the power produced is distributed to multiple states. The Company has an obligation to ensure that the projects pursued as a result of the Washington Initiative 937 can be proven to be cost-effective in the most stringent of the jurisdictions the Company serves. The Company will not carry unreasonable or unnecessary recovery risk that may arise due to concerns in the methodology used to financially justify projects. Additionally, the Company operates multiple facilities jointly with other utilities that do not carry responsibility to comply with Washington Initiative 937. Justifying projects to these joint owners is required before approval to proceed with a project can be obtained.

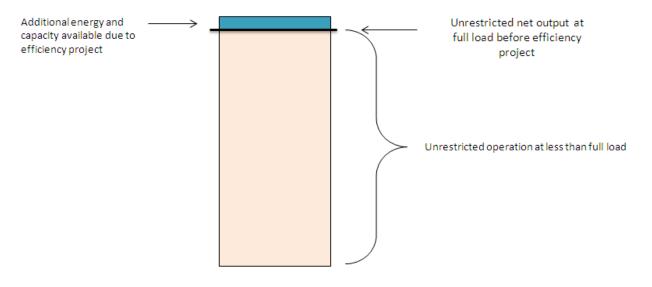
In an attempt to reduce the recovery risk to the Company and to help justify production efficiency projects to joint owners, the cost-effective methodology was examined for relevance to the production perspective. The Company has concluded that the previous production efficiency project analyses employed the same evaluation methodology used for retail DSM projects and did not adequately address the unique differences and cost recovery rules attributed to production projects. The Company therefore has revised the production cost effective analysis methodology to better comply with the rules and regulations of its multiple state utility commissions while also meeting the evaluation requirements of the Washington Initiative 937.

Component	DSM Method	Production Method				
T&D Deferral Credit	Financial model included T&D deferral	Financial model excludes T&D deferral				
T&D Deferrar Credit	credit.	credit				
Production Conital	Production Capital was not treated as a rate	Production Capital revenue requirement is				
Production Capital	based asset.	calculated assuming rate base treatment.				
Energy Savings Value	All MWh efficiency savings are valued as dispatchable energy.	MWh efficiency savings are split between dispatchable energy and non-dispatchable energy for valuation.				
Capacity Resource Deferral	DSM Capacity Resource Deferral value was included as a \$/MWh value.	Capacity resource deferral value is converted to \$/kW for inclusion in evaluation.				

The key differences between the previous (DSM Method) and the current (Production Method) are as follows:

Explanation of the above differences:

- 1. The DSM methodology analyzes energy savings at the retail distribution level. As such, the incremental reduction in retail energy delivery requirements is credited with an incremental value of deferring transmission and distribution costs. Production efficiency projects, however, do not change retail energy delivery requirements and are therefore evaluated at the production level without additional transmission and distribution deferral credit.
- 2. Capital for retail DSM projects is funded through a DSM tariff rider and is not included in rate base for regulatory recovery treatment. The full capital cost for production efficiency projects is placed in rate base and is recovered over time through depreciation expense.
- 3. Depending on the dispatch level of the plant, production efficiency projects may make more energy available to be consumed or sold or may simply result in fuel savings from reduced generation. If the plant is operating at or near full load and is not restricted for dispatch reasons, the energy efficiency savings are valued at the full DSM production \$/MWh values from the Company's filed Integrated Resource Plan. However, if additional energy is available but cannot be dispatched, then the energy efficiency is valued as a reduction in fuel cost needed to produce the same output. The following figure illustrates this concept:



Unrestricted operation was assessed to be at or below the capacity factor of the unit in question. Under this condition, the additional energy saved is only providing a savings in fuel cost through heat rate improvement.

4. For production project evaluations, capacity is typically assessed as a \$/kW value. For evaluating the capacity resource deferral attributed to production efficiency projects, the \$/MWh value used for valuing retail DSM capacity deferral was converted to \$/kW.