

November 15, 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-152072—Pacific Power’s 2017 Annual Conservation Plan

In accordance with WAC 480-109-120(2), Pacific Power & Light Company (Pacific Power or Company), a division of PacifiCorp, submits its 2017 Annual Conservation Plan to the Washington Utilities and Transportation Commission.

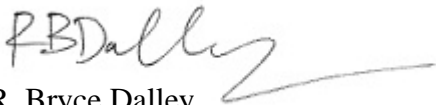
It is respectfully requested that all data requests be sent to the following, with copies to the Company’s counsel:

By Email (preferred): datarequest@pacificorp.com

By Regular Mail: Data Request Response Center
PacifiCorp
825 NE Multnomah Street, Suite 2000
Portland, OR 97232

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

Sincerely,



R. Bryce Dalley
Vice President, Regulation

Enclosures

2017 Annual Conservation Plan Washington

November 15, 2016



Table of Contents

Executive Summary	2
Biennial Acquisition Target.....	3
2016-2017 Budget and Savings by Program	4
Pilots	9
Manufactured Homes Planned Activities	10
Residential Program Details	12
Home Energy Savings (Schedule 118).....	12
Low Income Residential Program Details	24
Low Income Weatherization (Schedule 114).....	24
Non-Residential Program Details	25
<i>wattsmart</i> Business (Schedule 140).....	25
Other Programs & Initiatives	60
Energy Education in Schools	60
Northwest Energy Efficiency Alliance	62
NEEA’s 2017 Planned Activities Report.....	63
Customer Outreach and Communications	64
Cost Effectiveness.....	68
Program Tariffs.....	70

Executive Summary

On October 30, 2015, Pacific Power and Light Company (Pacific Power or Company), a division of PacifiCorp, filed its Biennial Conservation Plan (BCP) identifying the 2016-2025 ten-year achievable conservation potential and the 2016-2017 biennial conservation target. The BCP included Appendix 7, Pacific Power's 2016-2017 Demand-Side Management Business Plan, which contained information on budgets and programs that the Company will use to achieve its target.

To achieve its target and support regional efforts, the Company offers comprehensive programs for residential and non-residential customers and funds a portion of the Northwest Energy Efficiency Alliance (NEEA).

Table 1

Program or initiative	Residential	Non-residential
Low Income Weatherization	√	
Home Energy savings	√	
Home Energy Reports	√	
Wattsmart Business		√
NEEA	√	√

Savings and expenditure changes compared to original plan		
	MWh	\$
Residential	(9,865)	(877,718)
Non-residential	12,361	1,737,040
2017 portfolio benefit cost ratios		
PacifiCorp Total Resource Cost Test (PTRC)	1.67	
Utility Cost Test (UCT)	2.40	

By November 15, 2016, as required by WAC 480-109-120 (2) and Items 4a and 5 of the Conditions List for Order 01 of Docket UE-152072, the Company must file with the Washington Utilities and Transportation Commission (Commission) an annual conservation plan containing any changes to program details and an annual budget. The Company has updated the October 2015 Business Plan and after consultation with the Demand-Side Management Advisory Group, created the 2017 Annual Conservation Plan.

The 2017 Annual Conservation Plan reflects updated savings projections and budgets by program or initiative for 2016 and 2017 and utilizes the best available information available in October 2016. The Company will add, delete and/or modify programs, measures, initiatives or specific projects described in this Annual Conservation Plan going forward as appropriate and as circumstances warrant.

This update reflects the following changes:

- Illustrates the impact of the Company's decoupling commitment on the biennial acquisition target,
- Provides a revised estimate of savings and costs for 2016-2017 utilizing actuals through September 2016. Forecasts for Low Income Weatherization or NEEA forecasts remain the same as the original plan,
- Revises program details for the *watt*smart Business changes effective July 11, 2016,
- Revises program details for Home Energy Savings changes effective November 7, 2016,
- Revises the due date for the 2014-2015 Home Energy Savings program evaluation report,
- Incorporates the Commission approved Schedule 114 to reflect changes effective January 1, 2016,
- Summarizes planned activities for customers in manufactured homes,
- Provides information on pilot projects,
- Updates the Company's customer communications and outreach plans, and
- Provides cost-effectiveness analysis for the updated 2017 portfolio.

This Annual Conservation 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 update¹
- Program details including specific measures, incentives, and eligibility requirements

Biennial Acquisition Target

On December 17, 2015, the Commission approved a target of 87,814 MWh² for the 2016-2017 biennium in Order 01 in Docket UE-152072. On September 1, 2016, the Commission issued Order 12 in Docket UE-152253. Section (7)(4) of the Order specifies, "*Pacific Power must increase its annual conservation targets by 2.5 percent for the current 2016-2017 biennium, and by 5 percent per biennium thereafter through the period when decoupling is in effect. The Company's failure to meet its incremental conservation target will be subject to financial penalties.*" On September 30, 2016, the Company provided its Demand-Side Management Advisory Group an illustration of how this provision would impact the target for the current biennial period and agreed to provide similar information in the 2017 Annual Conservation Plan.

- $87,814 \text{ MWh} * 2.5\% = 2,195 \text{ MWh}$ (incremental conservation target)
- $87,814 \text{ MWh} + 2,195 \text{ MWh} = 90,009 \text{ MWh}$

¹ Final evaluation reports are available on the Company's website at: <http://www.pacificorp.com/es/dsm/washington.html>.

² Excludes expected savings from Northwest Energy Efficiency Alliance initiatives.

For the 2017 Annual Conservation Plan, the Company is using the term Biennial Acquisition Target to refer to the sum of the Commission-approved target and incremental conservation target.

2016-2017 Budget and Savings by Program

Table 2 below provides the projected savings and expenditures by program, initiative, and sector to achieve the 90,009 MWh (including line losses) Biennial Acquisition Target for 2016 and 2017. The “Total Pacific Power Conservation” row, which excludes costs and savings associated with Northwest Energy Efficiency Alliance (NEEA) initiatives, is directly comparable to the Biennial Acquisition Target. As shown, the Company is projecting 94,126 MWh in savings over the biennial period, approximately five percent more than the Biennial Acquisition Target.

Table 2
2016 - 2017 Biennial Savings and Budget Projections by Program

Program or Initiative	2016 Washington Conservation Estimates			2017 Washington Conservation Estimates			2016 + 2017
	Gross kWh/Yr Savings @site	Gross kWh/Yr Savings @gen	Estimated Expenditures	Gross kWh/Yr Savings @site	kWh/Yr Savings @gen	Estimated Expenditures	Gross MWh Savings @gen
Low Income Weatherization (114) ¹	243,540	267,090	\$ 780,000	243,540	267,090	\$ 1,000,000	534
Home Energy Savings (118)	7,639,935	8,378,717	\$ 2,568,201	10,835,081	11,882,833	\$ 3,397,403	20,262
Home Energy Reports (N/A) ²	7,437,867	8,157,109	\$ 364,526			\$ 376,907	8,157
Total Residential Programs	15,321,342	16,802,916	\$ 3,712,727	11,078,621	12,149,924	\$ 4,774,310	28,953
wattsmart Business (140) - Commercial	16,127,630	17,664,754	\$ 3,554,464	12,928,739	14,160,977	\$ 3,188,791	31,826
wattsmart Business (140) - Industrial	15,514,907	16,781,078	\$ 2,971,240	12,850,775	13,899,527	\$ 2,993,858	30,681
wattsmart Business (140) - Agricultural	1,216,404	1,334,031	\$ 296,226	1,215,000	1,332,491	\$ 349,076	2,667
Total Business Programs	32,858,941	35,779,863	\$ 6,821,929	26,994,514	29,392,995	\$ 6,531,725	65,173
Northwest Energy Efficiency Alliance ³	1,984,871	2,176,130	\$ 909,968	2,799,506	3,069,263	\$ 911,483	5,245
Total Other Conservation Initiatives	1,984,871	2,176,130	\$ 909,968	2,799,506	3,069,263	\$ 911,483	5,245
Be wattsmart, Begin at Home	-	-	\$ 60,947	-	-	\$ 60,947	-
Customer outreach/communication	-	-	\$ 250,000	-	-	\$ 250,000	-
Program Evaluations (& savings verification) ⁴	-	-	\$ 613,077	-	-	\$ 333,667	-
Potential study update/analysis ⁵	-	-	\$ 100,102	-	-	\$ 25,000	-
Technical Reference Library ⁶	-	-	\$ 44,916	-	-	\$ 44,536	-
Total Portfolio-Level Expenses	-	-	\$ 1,069,042	-	-	\$ 714,150	-
Total PacifiCorp Conservation ⁷	48,180,283	52,582,779	\$ 11,603,698	38,073,135	41,542,918	\$ 12,020,185	94,126
Total System Benefit Charge Conservation	50,165,154	54,758,909	\$ 12,513,666	40,872,642	44,612,181	\$ 12,931,668	99,371
Total Conservation	50,165,154	54,758,909	\$ 12,513,666	40,872,642	44,612,181	\$ 12,931,668	99,371
				Biennial Acquisition Target (MWh)			90,009

Notes for Biennial Savings and Budget Projections table:

1. Low income forecasts for 2016 and 2017 are based on forecasts from the community action agencies.
2. Forecasted savings for the Home Energy Reports program are based on current forecasts for the legacy, expansion, and refill treatment groups. Lifetime savings used for economic analysis are based on a two year measure life which is a change from the prior biennial period. First year savings as measured by program impact evaluations will be counted toward the biennial conservation target.
3. Includes both Pacific Power's direct funding of NEEA and the Company's internal management costs. NEEA 2016 and 2017 forecasted expenditures are based on Pacific Power's share (2.545 percent) of the estimated annual costs provided in NEEA's 2015-2019 Business Plan approved in June 2014. The 2016-2017 biennial electric savings forecast was provided by NEEA and includes savings above the Council's draft 7th power plan baseline and excludes the estimate from savings from local programs including those operated by Pacific Power and the rest of the region's utilities/program administrators.
4. For detail on the planned evaluations, see the program detail sections in this Annual Conservation Plan.
5. Potential study update and analysis costs for 2016 and 2017 represent study costs necessary to prepare for the 2018-2027 ten-year conservation forecast and the 2018-2019 biennial conservation target. 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.
6. Technical Reference Library (TRL) costs are the costs necessary for ongoing 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.
7. Excludes costs and savings associated with NEEA initiatives. Savings in this row are directly comparable to the Company's Biennial Acquisition target.

Changes to the 2016- 2017 Biennial Savings and Budget Projections

In 2016, the residential portfolio delivered less savings than originally forecast. These reductions were offset by increased customer participation in the non-residential programs. A primary driver for both are changes in availability and cost for efficient lighting, specifically light emitting diodes (LEDs). The 2016 performance also informed a revised forecast for 2017, which reflects higher savings from business customers and less from residences. Expenditure trends generally align with savings trends. Table 3 provides more information by program.

Table 3

November 2015 Savings and Expenditure Forecast Compared to November 2016 Forecast

	Business Plan November 1, 2015	Conservation Plan November 15, 2016	Variance	Business Plan November 1, 2015	Conservation Plan November 15, 2016	Variance
	2016-2017			2016-2017		
Program or Initiative	Gross MWh Savings @ gen			Estimated Expenditures		
Low Income Weatherization (114)	534	534	0	\$ 1,780,000	\$ 1,780,000	\$ -
Home Energy Savings (118)	28,511	20,262	(8,249)	\$ 6,843,322	\$ 5,965,604	\$ (877,718)
Home Energy Reports (N/A)	9,773	8,157	(1,616)	\$ 741,433	\$ 741,433	\$ -
Total Residential Programs	38,818	28,953	(9,865)	\$ 9,364,755	\$ 8,487,037	\$ (877,718)
wattsmart Business (140) - Commercial	24,108	31,826	7,718	\$ 6,290,253	\$ 6,743,255	\$ 453,002
wattsmart Business (140) - Industrial	25,705	30,681	4,976	\$ 4,580,262	\$ 5,965,098	\$ 1,384,836
wattsmart Business (140) - Agricultural	2,999	2,667	(332)	\$ 746,099	\$ 645,302	\$ (100,797)
Total Business Programs	52,812	65,173	12,361	\$ 11,616,614	\$ 13,353,654	\$ 1,737,040
Northwest Energy Efficiency Alliance	5,245	5,245	0	\$ 1,821,452	\$ 1,821,452	\$ (0)
Total Other Conservation Initiatives	5,245	5,245	0	\$ 1,821,452	\$ 1,821,452	\$ (0)
Be wattsmart, Begin at Home				\$ 121,894	\$ 121,894	\$ -
Customer outreach/communication				\$ 500,000	\$ 500,000	\$ -
Program Evaluations (& savings verification)				\$ 921,363	\$ 946,743	\$ 25,380
Potential study update/analysis				\$ 125,000	\$ 125,102	\$ 102
Technical Reference Library				\$ 89,452	\$ 89,452	\$ -
Total Portfolio-Level Expenses				\$ 1,757,709	\$ 1,783,191	\$ 25,482
Total PacifiCorp Conservation	91,630	94,126	2,496	\$ 22,739,078	\$ 23,623,883	\$ 884,805
Total System Benefit Charge Conservation	96,876	99,371	2,496	\$ 24,560,530	\$ 25,445,334	\$ 884,804
Total Conservation	96,876	99,371	2,496	\$ 24,560,530	\$ 25,445,334	\$ 884,804

Key Changes in the Savings Forecast

- Home Energy Savings: In 2016, the market moved away from general purpose compact fluorescent bulbs (CFLs) faster than expected, and the effect was doubled by a more limited availability of LED products meeting the new Energy Star 2.0 specification than was originally forecast. These combined changes in equipment availability led to a decrease in lighting savings in 2016. In addition, the smart thermostat measure, new in 2016, has experienced slower than forecasted participation. The 2017 forecast was revised downward after a review of the 2016 performance and a review of market information.
- Home Energy Reports: Savings are about 15 percent behind the original forecast, but may rebound heading into the high use season.
- *wattsmart* Business: Savings are higher than originally forecast driven primarily by increased lighting savings as business customers increasingly opt for LEDs as costs decline. The changes to lighting incentives effective July 11, 2016, motivated some customers to complete projects sooner than anticipated to utilize the higher incentives, thus increasing savings.

Key Changes in the Expenditure Forecast

- Home Energy Savings: Incentive costs declined in 2016 due to lower than expected savings. 2017 costs were adjusted to align with the revised savings forecast and the new delivery contract. The combination of delivery and incentive costs has decreased for the period, but with general purpose CFLs being removed from the program, costs are not forecast to decline by the same percentage as the savings.
- *wattsmart* Business: Savings are higher than originally forecast, which has increased incentive costs. There were no added delivery costs for the additional 2016 savings. For 2017, the additional savings are being delivered at approximately the same per unit cost as the 2016 savings.

Pilots

Within the programs described in detail below, the Company plans to pursue the following pilot initiatives in 2017:

- **Heat pump dryers:** In partnership with NEEA, the Company offers an incentive under its Home Energy Savings program (available since January 2016), which aligns with NEEA's Qualified Products List (QPL) and attempts to address the lack of eligible machines on the showroom floor at retailers within the Pacific Power service area. The initiative focuses on smaller retailers with faster decision processes (Sears Hometown, Bemis Appliance & TV Center, and possibly Best Buy). Initially three tactics will be deployed.
 - Pay for up to six pairs (dryer paired with an efficient washer) to be floored at local retailers. The retailer would be obligated to pay for the machines once they are sold.
 - Provide a no-cost in-home pair for the top volume sales person identified by local retailers. In-home equipment will provide firsthand experience on performance and ideally a personal testimonial in the sales process with customers. Limited to two pairs. There would be no reimbursement for this equipment.
 - Pay for expedited shipping to a) encourage sales of qualifying equipment not in stock and, b) provide a transition from the flooring offer.

This offer would run through the end of 2017. Each pair (a washer and a dryer) costs about \$2,500. NEEA will work with manufacturers and distributors for preferred pricing and expedited shipping. CLEAResult, the Home Energy Savings program implementer, will work with retailers on equipment availability and additional sales training as part of existing outreach to local retailers. Units sold, sales person experience, and changes in retailer willingness to stock will be tracked and provided in the 2017 annual report. Energy savings for equipment sold to eligible customers will be reported through the Home Energy Savings program.

- **New manufactured homes:** Build upon the Home Energy Savings incentives available since January 2016 for the three versions of efficient manufactured homes, including: High Performance Certification through Northwest Energy Efficient Manufactured Homes (NEEM), Eco-rated (also through NEEM), and ENERGY STAR. Increase engagement with NW Energy Works (a design consultant working with manufacturers) and two established dealers selling into Pacific Power's service area (Palm Harbor Homes and Kit Home Builders West) on a personal sell basis to improve sales training and qualifying equipment availability. Explore a "sales contingent" promotional offer, such as a discount on site setup or an upgraded air handler that could be tied to eligible equipment and customers. Promotional offer expenditures would be capped at \$10,000 and run through 2017. Efficient units sold, engagement schedules and uptake on added promotional offers will be tracked and provided in the annual report. Energy savings for homes sold to eligible customers will be reported through the Home Energy Savings program.
- **Waste heat to power:** Build upon the addition of incentives for waste heat to power and regenerative technologies to *wattsmart* Business program in January 2016. Qualify and contract with at least one energy engineering firm demonstrating this capability (in addition to others) through the larger request for proposal process. Continue to include specific waste

heat to power content on the website. Continue to screen for opportunities at customer sites as part of broader energy efficiency technical and financial assessments. Track waste heat to power projects identified and/or completed.

- **Targeted Delivery:** Target businesses through customer outreach efforts to increase participation in a specific area where additional value such as possible infrastructure investments has been identified. The 2017 customer outreach effort will utilize Retroficiency analytical services to analyze utility, customer, and third party data to help focus outreach activities. The 2017 effort will focus on the geographic area of Yakima and installed projects will be tracked.
- **Tier the *wattsmart* Business trade ally network:** Develop a premium tier for the existing *wattsmart* Business trade ally network to increase technical expertise and performance of the program's trade allies. Provide a source of motivation (increased local utility recognition) to encourage local trade allies to engage in NEEA's advanced lighting trade ally training (NXT Level). Tracking for 2017 would include measuring results (i.e., customer cost per kWh saved, percent savings achieved, and measures installed) for projects completed by premium designated network vendors, as compared to the universe of trade ally projects for same period. Comparing these project results will provide insights into the comprehensiveness of the projects (i.e., did the customer achieve the most savings for their available budget) completed by the premium tier trade allies compared to the standard trade allies. A summary of project performance by network tier and further recommendations for optimizing the tiered vendor network will be provided in the 2017 annual report.

Manufactured Homes Planned Activities

Residential programs for Washington customers have been available since the early 1990's, including Home Comfort, which financed weatherization in all home types, including manufactured homes. In addition, the Company provided funding and support for the regional Manufactured Homes Acquisition Project (MAP) and Super Good Cents (SGC) programs designed to get better manufactured homes built and sited across the northwest. Income qualified customers have been offered services through the Company's low income weatherization program since the mid-1980's.

Currently the Company offers incentives for existing and new manufactured homes through the Home Energy Savings program. The offers include incentives and a duct sealing service at no cost to the customer. Customers in manufactured homes are also receiving Home Energy Reports. Income qualified customers continue to receive services with no out of pocket costs through the low income weatherization program.

Chapter Four (Action Plan item MCS-1) of the Seventh Northwest Conservation and Electric Power Plan adopted in February 2016 outlines steps that Bonneville Power Administration and the region's utilities should take with respect to underserved markets or hard-to-reach segments of markets, including manufactured homes. In 2017, the Council will oversee an initial round of data collection and as part of supporting this regional effort the Company plans to perform the following activities in 2017.

- Complete data analysis on historical manufactured home program participation. Overlay participation data with available census data for household income and include analysis in the 2016 annual report.
- Provide information on 2016 program participants who reside in manufactured homes in the 2016 annual report.
- Participate in the Northwest Power and Conservation Council's work group convened for the purpose of fulfilling the requirements of 7th Power Plan Action Plan, item MCS-1.
- Qualify and contract with at least one additional duct sealing services provider to deliver manufactured home direct install services.
- Conduct one manufactured home specific breakout session as part of HVAC contractor training which provides technical instruction on equipment selection, sizing and installation.
- Continue sales training and outreach to new manufactured homes dealers as described in Pilot section.
- Continue funding and partnership agreements so non-profit agencies can continue screening and completing income qualified manufactured home weatherization projects.
- Deliver the pilot described above.

Residential Program Details

Home Energy Savings (Schedule 118)

Years of Implementation

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

Program Description

The program, administered by a third-party implementer, provides a broad set of incentives for more efficient products and services for Washington residential customers with a new or existing home, multi-family unit, or manufactured home. 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 are included in the tables below. Incentives are provided in three ways: post-purchase delivery to the customer for the majority of measures, retailer and/or manufacturer buy-down for lighting and light fixtures, and direct installation 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.

Program Updates

The Home Energy Savings program was updated in the fourth quarter of 2015 and changes took effect on January 1, 2016. During 2016, the Company used the program change process (including Advisory Group review and comment) described below to implement changes effective on November 7, 2016. The information provided in this annual conservation plan reflects the program offers/qualification as of November 7, 2016.

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
2013-2014

Evaluation Report Date
By year-end 2016

Completed by
The Cadmus Group

Future Evaluation Report(s):

Program Years
2015-2016

Evaluation Report Date
By year-end 2017

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 proposed changes to the details included in the program tariff must be filed and approved by the Commission before 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 06-004 (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 also available on the program section of the Company's website referenced above.

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 3rd 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 in accordance with 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.

Integrated Modified Energy Factor (IMEF): 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·ft²·°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.

Home Energy Savings – Appliance Incentives

Measure	Qualifications	Customer Incentive	Mid-Market Incentive
Clothes Washers	IMEF \geq 2.75	\$50	\$0
Hybrid Heat Pump Clothes Dryer	Northwest Energy Efficiency Alliance (NEEA)	\$150	\$0
Heat Pump Clothes Dryer	Northwest Energy Efficiency Alliance (NEEA)	\$300	\$0

Notes for appliance incentives table:

- Homes must have electric water heating and/or electric dryer heat for clothes washers to be eligible for incentives.
- See qualifying models on program website.
- Acronyms:
IMEF: Integrated Modified Energy Factor

Home Energy savings - Lighting Incentives

Measure	Qualifications	Customer Incentive	Mid-Market Incentive
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 \$5.00
LED Bulbs (Specialty)	ENERGY STAR qualified	\$0	Up to \$5.00
CFL and LED Fixtures	ENERGY STAR qualified Torchiere and portable products are not qualified.	\$0	Up to \$10.00

Notes for lighting incentive table:

- Mid-market incentives for CFL and LED bulbs apply to upstream, mail by request and direct install.
- Mail by request and direct install are offered on an initiative basis and may not be available for the entire year. See program website for availability information
- See product list on program website.
- Reduced price CFL, LED, or fixture offer may end early if entire allocation is sold.
- Acronyms:
CFL: Compact Fluorescent Light
LED: Light Emitting Diode

Home Energy savings - Electronics Incentives

Measure	Qualifications	Incentive
Advanced Power Strips	Power strip must have infrared sensor, occupancy sensor, or load sensor and automatically shut off the plug loads when no motion or reduced load is detected for a period of time.	Up to \$60

Notes for electronics table:

- Incentives for advanced power strips apply to upstream, mail by request, direct install, and downstream. Only one incentive will be provided per advanced power strip.
- Mail by request and direct install are offered on an initiative basis and may not be available for the entire year. See program website for availability information.
- See product list on program website.
- Incentives for advance power strips vary by specification qualifications. See website for incentive details.

Home Energy Savings - HVAC Incentives

Measure	Qualifications	Customer Incentive	Mid-Market Incentive
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
Central Air Conditioner with Best Practice Installation and Sizing	> 15 SEER	\$50	\$75
Heat Pump Performance Tested Comfort Systems, Commissioning Controls Sizing	Complete prescriptive checklist on the PTCS Air Source Heat Pump form found on the program website. Equipment must be installed by a program qualified contractor.	\$200	\$200
Duct Sealing and Insulation	$R_{\text{initial}} < 2$ $R_{\text{final}} \geq 8$ Must add at least R-8 to ducts 80% of home served by electric heat or cooling	\$100 for electrically cooled homes \$600 for electrically heated homes	\$50 for electrically cooled homes \$200 for electrically heated homes
Duct Sealing (excludes manufactured homes)	Must have ducted electric heating system serving at least 80% of the home's floor area. Installation must be completed by a participating or qualified contractor.	\$300 for electrically heated homes	\$0
Ductless Heat Pump	> 9.0 HSPF, single-head or multi-head unit	\$1,000	\$300
Heat Pump Upgrade with Best Practice Installation and Sizing	For upgrade of existing heat pump to new high efficiency heat pump. > 9.0 HSPF must include Best Practices Installation & Proper Sizing.	\$150	\$100
Heat Pump Conversion with Best Practice Installation and Sizing	For replacement of existing electric resistance heat or electric furnace with new high efficiency heat pump. > 9.0 HSPF must include Best Practices Installation & Proper Sizing.	\$1,250	\$500
Smart Thermostat	Wi-Fi enabled, programmable, online dashboard and/or mobile device app, occupancy sensor	\$50	\$0

Notes for HVAC incentive table:

- See additional installation requirements on program website.
- Multifamily properties may be eligible for the duct sealing and duct insulation, duct sealing, and the ductless heat pump incentives.
- Occupancy sensing feature must be enabled for smart thermostat incentives.

- Homes must have a ducted electric heating system to be eligible of smart thermostat incentives.
- Customers may self-install smart thermostats. Contractor not required.
- Acronyms:
PTCS: Performance Tested Comfort Systems
CCS: Commissioning, Controls, & Sizing
SEER: Seasonal Energy Efficiency Ratio
HSPF: Heating Seasonal Performance Factor
CFM: Cubic Feet per Minute

Home Energy Savings - Weatherization Incentives

Measure	Qualifications	Customer Incentive	Mid-Market Incentive
Insulation - Attic	$R_{\text{initial}} \leq 19$ $R_{\text{final}} \geq 49$	\$0.10/sf. for electrically cooled home \$0.35/sf. for electrically heated home	\$0/sf.
Insulation – Floor (to R-21)	$R_{\text{initial}} \leq 11$ $R_{\text{final}} \geq 21$ Home’s primary heat source must be electric	\$0.20/sf.	\$0/sf
Insulation – Floor (to R-30)	$R_{\text{initial}} \leq 11$ $R_{\text{final}} \geq 30$ Home’s primary heat source must be electric	\$0.30/sf.	\$0/sf.
Insulation - Wall	$R_{\text{initial}} \leq 4$ $R_{\text{final}} \geq 11$ 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	U-factor of 0.22 or lower.	\$1.50/sf. for electrically heated home	\$0/sf.
Whole-Home Upgrade Package	Install all of the following per Program requirements: <ul style="list-style-type: none"> • Heat Pump or Ductless Heat Pump • Whole-Home Attic Insulation • Duct Sealing & Insulation if main heat or cooling source is ducted • Air Sealing 	\$1,000 bonus	\$0

Notes for weatherization incentive table:

- See additional installation requirements on program website.

- Windows and Attic Insulation - homes must have electric heating, ducted unitary air conditioning, and/or a heat pump serving at least 80 percent of conditioned floor area in order to qualify.
- Multifamily properties may be eligible for attic insulation, wall insulation, or windows incentives.
- Acronyms:
R-Value: Thermal resistance of a material
U-Factor: Inverse of R-value used to measure the amount of heat transmitting through a square foot of material.

Home Energy Savings - New Homes Incentives

Measure	Qualifications	Customer/ Builder Incentive	Mid-Market Incentive
Whole Home Performance Path	Incentives available for new electrically heated homes that exceed the prevailing code by a minimum of 15%. The home's performance must be modeled and verified by independent third-parties and the models must be provided to the program for final savings and incentive calculations. See program website for additional details.	\$1,500	\$0
Heat Pump Water Heater	Northern Climate Specification Qualified	Up to \$800	\$0
Central Air Conditioner with Best Practices Install and Sizing	> 15 SEER	\$100	\$0
Heat Pump	> 9.0 HSPF	\$250	\$0
Windows	Install windows with a U-Factor < 0.22 Home must have electric heat pump.	\$1.00/sf.	\$0
Ductless Heat Pump	> 9.0 HSPF, single-head or multi-head unit	\$1,300	\$0

Notes for New Homes incentive table:

- See additional installation requirements on program website.
- For heat pump water heaters, incentives vary by tier qualification, see website for incentive tiers.
- For heat pump water heaters, see program website for qualified products list.
- Customers with both electric heat and electric cooling are eligible for the incentives for electrically heated homes only.
- New homes receiving whole home performance path incentives are not eligible for any other incentives in the new homes table.
- Acronyms:
SEER: Seasonal Energy Efficiency Ratio
HSPF: Heating Seasonal Performance Factor
U-Factor: Inverse of R-value used to measure the amount of heat transmitting through a square foot of material

Home Energy Savings – Water Heating Incentives

Measure	Qualifications	Customer Incentive	Mid-Market Incentive
Heat Pump Water Heater	Northern Climate Specification qualified	Up to \$600	\$200
Low-Flow Showerheads	Flow rate < 2.00 GPM	Direct Install/Mail by Request: Up to \$15 Retail: Up to \$4	
Low-Flow Aerators	Flow rate < 1.50 GPM	Direct Install/Mail by Request: Up to \$5 Retail: Up to \$1	

Notes for water heating table:

- For heat pump water heaters, see program website for qualified products list
- For heat pump water heaters, incentives vary by tier qualification. See website for incentive tiers
- Mail by request and direct install are offered on an initiative basis and may not be available for the entire year. See program website for availability information.
- Mid-market incentives for low-flow showerheads and low-flow aerators apply to mail by request and direct install.
- Acronyms:
GPM: Gallons per minute

Home Energy Savings - Manufactured Homes Incentives

Measure	Qualifications	Customer Incentive	Mid-Market Incentive
Duct Sealing (customer)	Must have ducted electric heating system serving at least 80 percent of the home’s floor area. Installation must be completed by a participating or qualified contractor.	\$300 for electrically heated homes	\$0
Duct Sealing (direct install)	Must have ducted electric heating system serving at least 80 percent of the home’s floor area. Service is provided by one or more contractors who will perform the work at no cost to the customer on a firm fixed price basis not exceeding the incentive and meet additional program requirements including completing additional trainings.	\$0	Up to \$500
Ductless Heat Pumps	≥ 9.0 HSPF	\$1000	\$300
Heat Pump Upgrade	≥ 9.0 HSPF/14 SEER	\$150	\$100

Measure	Qualifications	Customer Incentive	Mid-Market Incentive
Heat Pump Conversion	≥ 9.0 HSPF/14 SEER	\$1,250	\$500
Air Sealing	Air seal entire home per program requirements	\$0.30/sf	\$0/sf
New High Performance	Home must receive High Performance certification through NEEM.	\$2,000	
New ENERGY STAR	Home must receive ENERGY STAR certification.	\$1,000	
New Homes, Eco-rated Homes	Home must receive Eco-rated certification through NEEM.	\$1,250	

Notes for manufactured homes table:

- Manufactured homes are eligible for only one duct sealing incentive. The direct install offer may not be combined with the customer offer.
- Duct sealing direct install will be offered on an initiative basis and may not be available for the entire year. See program website for availability information.
- Mid-market incentives for manufactured homes apply to customer, contractor, or builder,
- See additional installation requirements on program website.
- Contractors providing the direct install duct sealing services will be reimbursed for actual job costs which may include surcharge for mileage, duct testing, and other job expenses, the total of which may not exceed the incentive. No additional costs will be billed to the customer.
- Acronyms:
NEEM: Northwest Energy Efficient Manufactured Homes
IECC: International Energy Conservation Code

Home Energy Reports

Years of Implementation

The Home Energy Reports program was implemented in August 2012 with a treatment group of 13,500 customers and was scheduled to run through December 2015 (41 months). This treatment group is referred to as the legacy group. 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. This treatment group is referred to as the expansion group.

Program Description

The Home Energy Reports 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 customers with information on how to modify their behavior to save energy. 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 Update

Last Evaluation Report:

Program Years
1/1/2014 – 12/31/2015

Evaluation Report Date
By May 2016

Completed by
Navigant Consulting

Future Evaluation Report(s):

Program Years
1/1/2016 – 12/31/2017

Evaluation Report Date
By May 2018

To be Completed by
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 41 month pilot period due to normal attrition for customer opt-outs and move-outs. The legacy pilot program consisted of a group of customers with an average annual 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 bi-monthly home energy reports through December 31, 2017. In addition, the vendor is adding households from the general population to help maintain the size of the treatment group and mitigate attrition impacts. Households added through this process as known the refill group. The 35,000 households in the expansion group now also receive reports on a bi-monthly schedule. The randomization of the treatment and control group was performed by Navigant Consulting Inc. Customers may also request an electronic version of the report delivered via email.

For this biennial period, the Company utilized a two-year measure life (in place of a one-year measure life utilized in the prior biennial period) for assessing cost effectiveness. The two year life aligns more closely with assumptions utilized by other Washington investor-owned utilities responsible for complying with I-937.

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

Planned Program Changes

The Company is tracking the performance of all groups to ensure the overall Home Energy Report efforts remains cost effective.

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 7,400 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

The Low Income Weatherization was updated in the fourth quarter of 2015 by submitting tariff changes for Commission approval which were effective on January 1, 2016. The information provided in this business plan reflects the program offers/qualification on January 1, 2016.

Consistent with WAC 480-109-100 (10) (b), cost-effectiveness for the low-income weatherization program is excluded from portfolio level cost effectiveness analysis. Reporting for the program will include the number of residences weatherized, the number of measures installed, associated energy savings, and total expenditures.

Evaluation Update

The next program evaluation will be completed by the end of 2016.

Last Evaluation Report:

Program Years
2011 – 2012

Evaluation Report Date
August 17, 2015

Completed by
Smith & Lehmann Consulting

Future Evaluation Report(s):

Program Years
2013 - 2015

Evaluation Report Date
By December 2016

To be Completed by
Cadmus

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 before becoming effective.

Non-Residential Program Details

wattsmart Business (Schedule 140)

The Company offers *wattsmart* 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.

Years of Implementation

Energy efficiency programs have been offered for business customers since the 1990's. The *wattsmart* Business program (Schedule 140) was created in 2014 by the consolidation of two existing programs: Energy FinAnswer and FinAnswer Express. The consolidation of the programs to *wattsmart* Business was approved with Docket UE-132083, effective January 1, 2014. Below is a brief history of the prior program names.

1990's	Energy FinAnswer program began as an energy efficiency improvement financing program.
October 2000	Energy FinAnswer program modified to an incentive-based program under Schedule 125. Introduced Small Retrofit Incentive (Schedule 115) and Large Retrofit Incentive (Schedule 116).
May 2004	Consolidation of Small Retrofit Incentive and Retrofit Incentive (Schedules 115 and 116 into one enhanced program, renamed FinAnswer Express (Schedule 115) with improvements.
January 2014	Consolidation of Energy FinAnswer and FinAnswer Express into one program, renamed <i>wattsmart</i> Business (Schedule 140) with improvements.

Program Description

The *wattsmart* 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 energy efficiency measures. Typical Upgrades include an expedited energy analysis and incentives based on the equipment installed (\$/fixture, \$/motor, \$/ton, etc.). 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 up to 80 percent of the project cost. There is also a midstream point-of-purchase delivery channel for LED lamps, referred to as LED Instant Incentives.

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).³ There is a cap to prevent incentives from 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 the customer's commitment to an energy savings goal over a prescribed timeframe; typically 12 months. Co-funding is proportionate to the energy savings 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 is suspended and/or ultimately ended and repayment of unearned co-funding would be required.

Energy Management was added to the *wattsmart* Business program in January 2014. Energy management incentives allow the Company to 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. Savings are site-specific and monitoring of building systems and industrial process controls is used to identify and quantify energy savings.

The program is marketed primarily via Pacific Power account managers, *wattsmart* Business vendors, *wattsmart* 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.

The *wattsmart* Business program was updated in the fourth quarter of 2015 and changes took effect on January 1, 2016. During 2016, the Company used the program change process (including Advisory Group review and comment) described below and proposed changes that were effective on July 11, 2016. The Company used the program change process again in the fourth quarter of 2016 and the changes take effect January 1, 2017. The information provided in this conservation plan reflects the program offers/qualification as of January 1, 2017.

Planned Program Changes

Future changes will be based on cost-effectiveness, participation and updated market information.

³ Note there are no incentive caps for new construction/major renovation projects where energy code applies.

Evaluation Update

FinAnswer Express

Last Evaluation Report:

Program Years
2012-2013

Evaluation Report Date
March 19, 2015

Completed by
Navigant Consulting, Inc.

Energy FinAnswer

Last Evaluation Report:

Program Years
2012- 2013

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 before 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 www.bewattsmart.com.

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. Qualifying measures include Waste Heat to Power.

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 Facility⁴ 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.

⁴ 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.

Waste Heat to Power: Waste heat to power is the process of capturing heat discarded by a process (with no increase in fuel input for the process) and using that heat to generate electricity for use by the Non-residential Facility in place of electricity provided by Pacific Power.

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 *wattsmart* 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:^{5,6}

Category		Incentive	Percent Project Cost Cap ⁷	1-Year Simple Payback Cap for Projects ⁸	Other Limitations
Prescriptive Incentives (Typical Upgrades)	Lighting - Retrofit	See incentive lists	70%	Yes	See incentive lists
	Lighting - New Construction/ Major Renovation		None	No	
	Motors		None	No	
	HVAC ⁹		None	No	
	Building Envelope		None	No	
	Food Service		None	No	
	Appliances		None	No	
	Office		None	No	
	Irrigation		70%	Yes	
	Farm and Dairy		70%	Yes	
	Compressed Air		70%	Yes	
	Wastewater and other Refrigeration				
			70%	Yes	
Enhanced Incentives for Small Businesses	Lighting - Retrofit	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.
	Non-lighting		None	No	

⁵ 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.

⁶ Incentives for prescriptive measures are restricted to the amounts shown on the website.

⁷ 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.

⁸ 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.

⁹ Evaporative pre-cooler incentives are subject to the project cost cap and the one-year payback cap.

Category	Incentive	Percent Project Cost Cap¹⁰	1-Year Simple Payback Cap for Projects¹¹	Other Limitations
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. ^{12 13}	\$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

¹⁰ 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.

¹¹ 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.

¹² 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.

¹³ Refer to the Pacific Power website for Waste Heat to Power incentive eligibility requirements.

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 style="list-style-type: none"> 1. You select an Energy Project Manager 2. We work together on Comprehensive Plan for electric energy savings 3. You sign the Energy Project Manager Offer Letter
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 style="list-style-type: none"> 1. At the end of performance period as defined in the Energy Project Manager Offer Letter

**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 Incentives

Measure	Category	Eligibility Requirements	Incentive
Interior Lighting	Lighting Retrofit (not listed below)	See program website for additional eligibility requirements, qualified equipment lists, and list of lighting equipment that is not eligible for incentives	\$0.12/kWh annual energy savings
	TLED Relamp	Lamp wattage reduction of ≥ 10 Watts, no ballast or driver retrofit	\$4/lamp
	T8 or T5 Fluorescent Relamp	Lamp wattage reduction of ≥ 3 Watts, no ballast retrofit	\$1/lamp
Exterior Lighting	Lighting Retrofits (except street/pole)	See program website for additional eligibility requirements, qualified equipment lists, and list of lighting equipment that is not eligible for incentives	\$0.09/kWh annual energy savings
	Street/Pole	See program website for additional eligibility requirements, qualified equipment lists, and list of lighting equipment that is not eligible for incentives	\$0.06/kWh annual 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 TLED and T8/T5 Fluorescent Relamps may not be combined with other lamp or fixture incentives and will only be paid once per facility.
4. Qualified equipment lists referenced in the table are posted on the Washington energy efficiency program section of Pacific Power's website.
5. Incentives for Ceramic Metal Halide fixtures, Pulse Start Metal Halide fixtures, and Pulse Start Metal Halide Electronic ballasts will no longer be available effective February 10, 2017. A complete list of lighting equipment not eligible for retrofit incentives is available on the Washington energy efficiency program section of Pacific Power's website.

TLED = Tubular Light-Emitting Diode

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

Measure	Category	Eligibility Requirements	Incentive
Lighting Control	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 percent or more of the fixture in response to daylight.	\$0.34/Watt controlled
	Exterior Dimming Control	Must control LED technology in an exterior lighting application. Control must be integral to LED fixture or fixture-mounted and reduce fixture power by 75 percent or more for a minimum of 6 hrs per night or when the space has been unoccupied for 15 minutes or less.	\$0.34/Watt controlled
	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
Non-General Illuminance	Exit Sign	LED or photoluminescent replacing incandescent or fluorescent	\$15/Sign
	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
	LED Case Lighting – Reach-in Case	LED replacing fluorescent lamp in existing refrigerated cases. LED must be listed on qualified equipment list.	\$10/linear foot
	LED Case Lighting – Open Case		\$10/linear foot
	Refrigerated Case Occupancy Sensor	Installed in existing refrigerated case with LED lighting	\$1/linear foot
Custom	Custom	Not listed above	\$0.12/kWh annual energy savings

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

- 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 or Exterior Dimming 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.
5. Qualified equipment lists referenced in the table are posted on the Washington energy efficiency program section of Pacific Power's website.

PIR = Passive Infrared

Dual Tech = Sensors combining ultrasonic and passive infrared

LED = Light-emitting Diode

New Construction/Major Renovation Lighting Incentives

Measure	Category	Eligibility Requirements	Incentive
Interior Lighting	Lighting and Lighting Control	<p>1. The total connected interior lighting power for New Construction/Major Renovation projects must be at least 10 percent 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 percent lower than common practice as determined by Pacific Power.</p> <p>2. Energy savings is subject to approval by Pacific Power</p>	\$0.08/kWh annual energy savings
Exterior Lighting	Induction Fixture	All Wattages, New Fixtures Only	\$25/Fixture
	LED Outdoor Pole/Roadway, decorative	<75W; LED must be listed on qualified equipment list	\$25/Fixture
	LED Outdoor Pole/Roadway	≤200W; LED must be listed on qualified equipment list	\$50/fixture
		>200W; LED must be listed on qualified equipment list	\$175/fixture
	LED Canopy/Soffit	LED must be listed on qualified equipment list	\$50/fixture
	LED Wall packs	<50 Watts; LED must be listed on qualified equipment list	\$50/fixture
		≥50 Watts; LED must be listed on qualified equipment list	\$50/fixture
	LED Flood Lights	<100 Watts; LED must be listed on qualified equipment list	\$50/fixture
		≥100 Watts; LED must be listed on qualified equipment list	\$100/fixture
	CFL Wall Pack	All Wattages, Hardwire Fixtures Only	\$10/Fixture
Custom	Not listed above	\$0.08/kWh annual energy savings	

Notes for New Construction/Major Renovation Lighting Incentive Table

- 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.
- Lighting controls required by or used to comply with the applicable version of the state energy code are not eligible for incentives.

Motor Incentives

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

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/horsepower 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 Incentives

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

			Minimum Efficiency Requirement & Customer Incentive		
Equipment Type	Size Category	Sub-Category	\$25/ton	\$50/ton	\$75/ton
VRF Air-Cooled Heat Pumps (Cooling Mode)	<65,000 Btu/hr	Multisplit System or Multisplit System with Heat Recovery	--	--	15 SEER and 12.5 EER
	≥65,000 Btu/hr and <135,000 Btu/hr		--	--	11.5 EER and 16 IEER
	≥135,000 Btu/hr and <240,000 Btu/hr		--	--	10.9 EER and 15.4 IEER
	>240,000 Btu/hr		--	--	9.6 EER and 14.3 IEER
VRF Air-Cooled Heat Pumps (Heating Mode) (See note 3)	<65,000 Btu/hr	--	--	--	8.5 HSPF
	≥65,000 Btu/hr and <135,000 Btu/hr	47°Fdb/43° wb outdoor air	--	--	3.4 COP
		17°Fdb/15° wb outdoor air	--	--	2.4 COP
	>135,000 Btu/hr	47°Fdb/43° wb outdoor air	--	--	3.2 COP
		17°Fdb/15° wb outdoor air	--	--	2.5 COP
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) (See note 3)	< 135,000 Btu/hr	Multisplit System or Multisplit System with Heat Recovery	--	--	CEE Tier 1
Heat Pumps, Ground-Source or Groundwater-Source (Heating & Cooling Mode)	All sizes	(See note 3)	--	ENERGY STAR Qualified	--
Ground Source or Groundwater-Source Heat Pump Loop	All sizes	Open Loop	\$25/ton	--	--
		Closed Loop			

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	Size Category	Sub-Category	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 percent of process cooling loads)	Must exceed minimum efficiencies required by energy code	\$0.15/kWh annual energy Savings (See Note 3)
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 (Retrofit only)	All sizes with no prior occupancy based control	--	See Note 4	\$50/controller
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 (See Note 5)
Advanced Rooftop Unit Control	≥ 5 tons and ≤ 10 tons	Must be installed on existing unitary packaged rooftop units (no split-systems), ≥ 5 tons nominal cooling capacity with constant speed supply fans.	Controls must include: - Either a supply fan VFD or multi-speed supply fan motor with controller that meets ventilation and space conditioning needs - Digital, integrated economizer control	\$2,000
	> 10 tons and ≤ 15 tons			\$2,800
	> 15 tons and ≤ 20 tons			\$4,000
	> 20 tons			\$4,500
Smart Thermostat	Residential (used in a business)		See Home Energy Savings program	

Notes for other HVAC equipment and controls incentive table

- Equipment that meets or exceeds the efficiency requirements listed for the equipment category in the above table may qualify for the listed incentive.
- Incentives are paid at \$0.15/kWh annual energy savings. IDEC energy savings subject to approval by Pacific Power.
- Incentives are paid at \$0.15/kWh annual energy savings. Chiller energy savings subject to approval by Pacific Power.
- 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.
- Incentives for Evaporative Pre-coolers 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.

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

Building Envelope (Retrofit) 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 (See Note 3, 4)	Site-Built	U-Factor ≤ 0.30 and SHGC ≤ 0.33 (Glazing Only Rating)	\$0.34/square foot
	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)

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

Building Envelope (New Construction/Major Renovation) Incentives

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

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.

NFRC = National Fenestration Rating Council

SHGC = Solar Heat Gain Coefficient

Food Service Equipment Incentives

Equipment Type	Equipment Category	Minimum Efficiency Requirement	Customer Incentive
Commercial Dishwasher (High Temperature models w/ electric boosters Only)	Undercounter	ENERGY STAR Qualified	\$100
	Stationary Rack, Single Tank, Door Type		\$400
	Single Tank Conveyor		\$1,000
	Multiple Tank Conveyor		\$500
Electric Insulated Holding Cabinet	Full Size	ENERGY STAR Qualified	\$400
	3/4 Size		\$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 $\geq 68\%$	\$300
Electric Convection Oven	--	ENERGY STAR Qualified	\$350
Electric Griddle		ENERGY STAR Tier 2 Qualified	\$150
Electric Combination Oven	6-15 pans	ENERGY STAR Qualified	\$1,000
	16-20 pans	ENERGY STAR Qualified	\$275
Electric Commercial Fryer	Tier 1	ENERGY STAR Qualified	\$200
	Tier 2	ENERGY STAR Qualified w/Cooking Efficiency $\geq 85\%$, Idle Energy Rate ≤ 860 Watts	\$300
Ice Machines (Air-Cooled Only)	Tier 1: Harvest Rate < 500 lbs/day	ENERGY STAR Qualified	\$125
	Tier 1: Harvest Rate ≥ 500 lbs/day	ENERGY STAR Qualified	\$150
	Tier 2: Harvest Rate < 500 lbs/day	CEE Tier 2 Qualified	\$250
	Tier 2: Harvest Rate ≥ 500 lbs/day	CEE Tier 2 Qualified	\$400
Commercial Transparent Door Refrigerator (See Note 3)	$0 < V < 15$	ENERGY STAR Qualified	\$25
	$15 \leq V < 30$		\$50
	$30 \leq V < 50$		\$75
	$50 \leq V$		\$125
	Chest Configuration		\$50
Commercial Transparent Door Freezer (See Note 3)	$0 < V < 15$	ENERGY STAR Qualified	\$25
	$15 \leq V < 30$		\$50
	$30 \leq V < 50$		\$75
	$50 \leq V$		\$100
	Chest Configuration		\$100
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 2)

Equipment Type	Equipment Category	Minimum Efficiency Requirement	Customer Incentive
Anti-Sweat Heater Controls (Retrofit Only)	Low-Temp (Freezing) Cases	Technologies that reduce energy consumption of anti-sweat heaters based on sensing humidity.	\$20/linear foot (case length)
	Med-Temp (Refrigerated) Cases		\$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. Incentives are paid at \$0.15/kWh annual energy savings. Demand controlled kitchen ventilation exhaust hood energy savings subject to approval by Pacific Power.

3. Incentives for commercial refrigerators and freezers will no longer be available effective March 27, 2017.

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
High-Efficiency Clothes Washer	Residential (used in a business)	See Home Energy Savings program	
	Commercial (must have electric water heating)	ENERGY STAR® Qualified	\$100
Heat Pump Water Heater	Residential (used in a business)	See Home Energy Savings program	
Heat Pump Clothes Dryer	Residential (used in a business)	See Home Energy Savings program	
Hybrid Heat Pump Clothes Dryer	Residential (used in a business)	See Home Energy Savings program	

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 Efficiency Measures

Equipment Type	Replace	Minimum Efficiency Requirements	Customer Incentive
Smart Plug Strip	--	<ol style="list-style-type: none"> 1. 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. 2. Applies only to electric plug-load applications (e.g. computer monitors, desk lamps, etc.) 	\$15/qualifying unit

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	1. Fixed-in-place (solid set) systems not eligible. 2. Incentive limited to two sprinklers per irrigated acre.	\$2.50 each
New or rebuilt impact Sprinkler replacing worn or leaking impact sprinkler	Leaking or malfunctioning impact sprinkler	New or rebuilt impact sprinkler	1. New nozzle shall be included in new or rebuilt sprinkler. 2. Rebuilt sprinkler shall meet or exceed manufacturer's specifications. 3. Fixed-in-place (solid set) systems not eligible. 4. Incentive limited to two sprinklers per irrigated acre.	\$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	1. Flow rate shall not be increased. 2. All nozzles on the wheel line or hand line shall be replaced. 3. Fixed-in-place (solid set) systems not eligible. 4. Incentive limited to two nozzles per irrigated acre.	\$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	1. Nozzle to be replaced may be fixed orifice or flow control type. 2. New flow control nozzle shall have a flow rating equal to or less than the flow rating of the existing nozzle at 40 psi. 3. All nozzles on the wheel line or hand line shall be replaced. 4. Fixed-in-place (solid set) systems not eligible. 5. Incentive limited to two nozzles per irrigated acre.	\$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)	1. New gasket must replace leaking gasket. 2. Fixed-in-place (solid set) systems not eligible. 3. Incentive limited to two gaskets per irrigated acre.	\$2 each
New drain replacing leaking drain	Leaking drain	New drain, including drains on pivots and linears	1. New drain must replace leaking drain. 2. Fixed-in-place (solid set) systems not eligible. 3. Incentive limited to two drains per irrigated acre.	\$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	1. Applies to leaking or malfunctioning levelers only. 2. For rebuilds, invoice must show number of rebuild kits purchased and installed.	\$3 each

Irrigation Measure	Replace	With	Limitations	Customer Incentive
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	1. Applies to leaking wheel line feed hose only. 2. For rebuilds, invoice must show number of rebuild kits purchased and installed.	\$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, multi-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	1. Gasket shall replace leaking gasket at the pivot point of the center pivot. 2. No more than one gasket shall be claimed per pivot.	\$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		Add variable frequency drive to existing or new irrigation pump	1. Pumps serving any type of irrigation water transport or distribution system are eligible – wheel lines, hand lines, pivots, linears, fixed-in-place (solid set). 2. Both retrofit and new construction projects are eligible.	\$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
High Efficiency Circulating Fans (See Note 2)	12-23" Diameter	Fan must achieve an efficiency level of 11 cfm/W	\$25/fan
	24-35" Diameter	Fan must achieve an efficiency level of 18 cfm/W	\$35/fan
	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
High-efficiency Ventilation Fans (See Note 2)	12-23" Diameter	Fan must achieve an efficiency level of 11 cfm/W	\$45/fan
	24-35" Diameter	Fan must achieve an efficiency level of 13 cfm/W	\$75/fan
	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 (Retrofit Only)	--	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	\$175/hp

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 (\leq 2 gallons per scfm of trim compressor capacity)	Total receiver capacity after addition must be $>$ 2 gallons per scfm of trim compressor capacity	1. Compressor system size \leq 75 horsepower, not counting backup compressor(s). 2. Trim compressor must use load/unload control, not inlet modulation or on/off control. 3. Systems with VFD compressor or using variable displacement compressor are not eligible.	\$3/gallon above 2 gallons per scfm
Cycling Refrigerated Dryers	Non-cycling refrigerated dryer	Cycling refrigerated dryer	1. Rated dryer capacity must be \leq 500 scfm 2. Dryer must operate exclusively in cycling mode and cannot be equipped with the ability to select between cycling and non-cycling mode. 3. Refrigeration compressor must cycle off during periods of reduced demand	\$2/scfm
VFD Controlled Compressor	Fixed speed compressor	\leq 75 hp VFD controlled oil-injected screw compressor operating in system with total compressor capacity \leq 75 hp, not counting backup compressor capacity	1. Total compressor capacity in upgraded system is \leq 75 hp, not counting backup compressor capacity. 2. Compressor must adjust speed as primary means of capacity control	\$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	\leq 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

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

Incentives for Wastewater and other Refrigeration Energy Efficiency Measures

Equipment Type	Replace	With	Customer Incentive
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

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.

Enhanced Incentives for Small Businesses – Lighting (Retrofit only)¹⁴

Measure	Category	Eligibility Requirements	Maximum Incentive¹⁵
T8 Fluorescent	Retrofit (Lamp/Ballast)	4' CEE Qualified ≤ 28 Watt T8 Replacement Lamps and electronic ballast.	\$140/Fixture
	Delamp	4' CEE Qualified T8 Replacement Lamps and electronic ballast. - Must remove one or more lamps and permanently disable corresponding sockets - 8' T12 Slimline lamps must be replaced by ≤ 28 Watt CEE Qualified T8 Replacement Lamp(s) - 8' T12HO/VHO and 4' T12/T8 lamps may be replaced by ≤ 32 Watt CEE Qualified T8 Replacement Lamp(s)	\$120/Fixture
	T12 Conversion (Kit/Lamp/Ballast)	(1) 8' T12 to (2) 4' CEE Qualified T8 Replacement Lamps and electronic ballast. - T12 Slimline lamps must be replaced by ≤ 28 Watt CEE Qualified T8 Replacement Lamp(s) - T12HO/VHO lamps may be replaced by ≤ 32 Watt CEE Qualified T8 Replacement Lamp(s)	\$150/Fixture
	Relamp	Lamp wattage reduction ≥ 3 Watts, No ballast retrofit	\$15/Lamp Installed
	Replacement – High Bay (Fixture/Lamp/Ballast)	Fixture with less than six (6) lamps: 4' CEE Qualified T8 Replacement Lamp and electronic ballast. - Must replace Incandescent or HID	\$300/Fixture
		Fixture with six (6) or more lamps: 4' CEE Qualified T8 Replacement Lamp and electronic ballast. - Must replace Incandescent or HID	\$350/Fixture

¹⁴ Incentives for measures in this table are available only to Small Business customers as defined in the incentives table on page 2.

¹⁵ 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.

Measure	Category	Eligibility Requirements	Maximum Incentive ¹⁶
T5 Fluorescent	Relamp	Lamp wattage reduction ≥ 3 Watts, No ballast retrofit	\$22/Lamp Installed
	Replacement – High Bay (Fixture/Lamp/Ballast)	Fixture with less than six (6) lamps: - Must replace Incandescent or HID	\$375/Fixture
		Fixture with six (6) or more lamps: - Must replace Incandescent or HID	\$450/Fixture
LED	Recessed Downlight	Must replace existing incandescent or fluorescent, Retrofit kits only (new/replacement fixtures not eligible), LED must be listed on qualified equipment list	\$150/Fixture
	Relamp	4' Tubular LED lamps and electronic ballast replacement or driver. LED must be listed on qualified equipment list	\$140/Fixture
	8' T12 Conversion	(1) 8' T12 to (2) 4' Tubular LED lamps and electronic ballast replacement or driver and retrofit kit. LED must be listed on qualified equipment list	\$170/Fixture
	HID Replacement	LED HID replacement lamp must replace 250–400 watt HID lamp in interior low bay or high bay fixture. LED must be listed on qualified equipment list	\$75/Lamp
	Incandescent Replacement	LED lamp must replace incandescent lamps. LED must be listed on qualified equipment list	\$15/Lamp
	Volumetric Kit	LED volumetric kit, 2x4 or 2x2 troffer retrofit. LED must be listed on qualified equipment list	\$160/Fixture
	Replacement - Exit Signs	Must replace incandescent or fluorescent	\$100/Sign
	Channel Letter Sign	LED replacing existing neon or fluorescent signage	\$10/Linear Foot
	Marquee/Cabinet Sign	LED replacing existing fluorescent signage	\$10/Linear Foot
Lighting Control	Occupancy Sensor Retrofit	PIR, Dual Tech, or Integral Sensor	\$0.30/Watt controlled

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.

¹⁶ 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.

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

Enhanced Incentives for Small Businesses – Non-Lighting (Retrofit only)

Measure	Category	Eligibility Requirements	Customer Incentive	Maximum Contractor Incentive
Thermostat Reprogramming	--	For existing programmable thermostats with daily setback control capability	\$0	Up to \$40/thermostat
Smart Plug Strips	--	1. 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. 2. Applies only to electric plug-load applications with at least 1 device controlled by power strip.	\$0	Up to \$50/qualifying unit

Notes for enhanced incentives for small businesses – Non-Lighting table:

1. Incentives for measures in this table are available only to Small Business customers as defined in the incentives table on page 2.
2. The incentives listed in this table are “up to” incentives. Actual incentives will be determined by Pacific Power on a component level basis, will not exceed the values in this table, will be posted on the Pacific Power website, and are subject to change with 45 days notice.
3. To be eligible for the incentives listed above, thermostat reprogramming and smart plug strip installation must be performed by an approved contractor.

Mid-Market Incentives¹⁷

Measure	Category	Eligibility Requirements	Maximum Incentive ¹⁸
LED	A-Lamp, Medium Base	LED must be listed on qualified equipment list	Up to \$7/Lamp
	PAR Reflector Lamp	LED must be listed on qualified equipment list	Up to \$15/Lamp
	BR Reflector Lamp	LED must be listed on qualified equipment list	Up to \$13/Lamp
	MR16 Reflector Lamp	LED must be listed on qualified equipment list	Up to \$10/Lamp
	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
	Type A, TLED Lamp	LED must be listed on qualified equipment list	Up to \$6/Lamp
	HID Replacement Lamp <50 W	LED must be listed on qualified equipment list	Up to \$60/Lamp
	HID Replacement Lamp ≥50 and < 150 W	LED must be listed on qualified equipment list	Up to \$65/Lamp
	Wall Pack Fixture	LED must be listed on qualified equipment list	Up to \$30/Fixture
	Wall Pack Fixture with Occupancy Sensor	LED must be listed on qualified equipment list	Up to \$75/Fixture
Fluorescent	Reduced Wattage T8 Lamp	≤28 W CEE Replacement Lamp	Up to \$0.75/Lamp
	Reduced Wattage T5 HO Lamp	≤51 W T5HO Lamp	Up to \$1/Lamp

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.

A = Arbitrary (standard lamp shape)
 PAR = Parabolic Aluminized Reflector
 BR = Bulged Reflector
 HO = High Output
 MR = Mirrored Reflector
 TLED = Tubular Light Emitting Diode
 W = Watt

¹⁷ Incentives for measures in this table are available through Company-approved retailers/distributors or a customer application process.

¹⁸ 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 retailers/distributors and Trade Allies.

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 service area.

Energy Education in Schools

Years of Implementation

This "education only" program replaced the previous "education and savings" program which ran from April 2003 through June 2012. The program, Be *watt*smart, 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 2015-16, 2016-17, and 2017-18 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 nearly 40 years providing energy education and awareness. The mission of NEF is to "cultivate and promote an energy literate society".

Program Changes

The Company issued a competitive RFP in March, 2015 to procure services for the next three years. NEF was the successful bidder retaining program implementation responsibilities for the 2015-16, 2016-17, 2017-18 school 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 5th grade appropriate presentations to educate students on core electricity components and efficient use, including the importance of energy efficiency and how students can become more energy efficient. The targeted grade levels are 5th or 6th 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. Each teacher returning at least 80 percent of their students’ completed household audit cards receive a \$50 mini-grant. Those returning 50-79 percent of the household audit cards receive a \$25 mini-grant. The data is summarized and reported to determine energy efficiency behavioral data and other program participation information.

Program Metrics per Year

Total number of schools:	approximately 50
Total number of students:	approximately 4,000
Percent of eligible schools reached:	approximately 80 percent
Total teachers	approximately 160
Target return rate - Home Energy Checklists	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 to become responsible energy stewards for the future of their community and state.
- Teachers, students, and families make a commitment to use energy more wisely at home, at school, at work, and in the community.
- Teachers, students and families will have a greater awareness of what it means to be *wattsmart*, and the resources available to them.
- A culture of energy efficiency will be developed among teachers, students, and families.
- Families will become more aware and motivated to take advantage of energy efficiency programs provided by the Company.
- Data will be gathered, analyzed, summarized, and reported regarding student sharing of energy efficiency messages with their family, home energy use, energy efficiency practices, and how the program is achieving its anticipated outcomes.

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.

The 2016-2017 biennial electric savings forecast was provided by NEEA and includes savings above the Council's draft 7th power plan baseline and excludes the estimate from savings from local programs including those operated by Pacific Power and the rest of the region's utilities/program administrators. Appendix A of NEEA's 2015 Annual Savings Report explains how NEEA's savings are calculated (and not double-counted with utility program savings). See pp 133-134. Appendix A can be found on NEEA's Cost Effectiveness Advisory Committee's Conduit page at <https://conduitnw.org/Pages/File.aspx?rid=3712>.

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 (2016-2017) 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 energy-efficient 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.
- Advancing the adoption and implementation of increasingly efficient energy codes and standards to lock in long-term savings.

NEEA's initiatives are outlined in its 2015-2019 Business and Strategic Plans and annual reports. More information on NEEA's initiatives and business and strategic plans can be found at the following on the NEEA website:

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

NEEA's 2017 Planned Activities Report

Information specific to the NEEA's 2017 plans for Washington is provided in the following report.



2017 Planned Activities Report

Prepared for Pacific Power

OVERVIEW

NOTE: NEEA is currently undergoing operations planning for its 2017 activities. All activities outlined in this report are pending NEEA Board approval at the end of 2016. If there are any material changes to NEEA's current draft Operations Plan, NEEA will update the following information accordingly.

The Northwest Energy Efficiency Alliance (NEEA) is an alliance of more than 140 Northwest utilities and energy efficiency organizations working on behalf of Northwest energy consumers. NEEA aggregates and leverages the power of the region to identify and vet emerging technologies and create the market conditions necessary for them to take hold. NEEA also helps the region capture energy savings through more efficient codes and standards. Pacific Power funds NEEA directly on behalf of its Washington customers and indirectly, through Energy Trust of Oregon, for its Oregon customers.

NEEA's 2015-2019 Business Plan outlines two strategic goals: 1) Fill the energy efficiency pipeline with new products, services and practices; and 2) Create market conditions that will accelerate and sustain the market adoption of efficient product, service and practices. This report summarizes NEEA's 2017 planned activities to support these business plan goals. It is based on the draft version of NEEA's 2017 Operations Plan, which will be approved by the NEEA Board in December, 2016.

FILLING THE ENERGY EFFICIENCY PIPELINE

On behalf of the region, NEEA scans the market for emerging energy efficiency opportunities and conducts lab and field testing to verify product performance and energy savings. The following is a list of promising emerging technologies, service or practices, which NEEA identified through its scanning process and will continue to investigate in 2017:

- **Ductless heat pump integrated with a domestic hot water tank (residential):** Combines a ductless heat pump and heat pump water heater into one appliance. Looking at technologies applicable to both zonal and whole house applications.
- **Split system heat pump water heater (residential):** Inverter-driven heat pump-based domestic hot water with an outdoor compressor unit, and indoor storage tank.
- **Highly-efficient heat pump water heater (residential):** NEEA will continue to scan for highly-efficient heat pump water heaters that meet the highest efficiency tiers of the Advanced Water Heater Specification. As new products are tested in the lab and field they will be added to the qualified products list.
- **Window attachments (residential):** Interior or exterior window attachments with a low-e coating to improve U-value and heat gain in homes.

- **V/ HAC – Ventilation separated from heating and cooling (commercial/ industrial):** Systems approach to HVAC where ventilation control and delivery is separated from building heating and cooling.
- **Extended motor products (commercial/ industrial):** Advancing integrated motor systems with optimized performance leveraging a test method and labeling system.
- **Compressed air nozzle – Air saver unit (commercial/ industrial):** Add-on product to compressed air systems that reduces air consumption by interrupting air flow through engineered air nozzles.

Opportunities that demonstrate energy savings, are commercially available, and have market transformation potential will be selected for further investigation.

CREATING MARKET CONDITIONS FOR ENERGY EFFICIENCY (ELECTRIC)

NEEA works across all four Northwest states to influence entire markets by identifying barriers (or opportunities) to efficiency and removing those barriers through strategic market interventions. This market influence is enabled by the region having a united voice “upstream” in the market with national and international organizations.

Regional Market Strategies

To maximize long-term regional efficiency efforts, NEEA is facilitating the development of regional strategic market plans in four high-priority strategic markets: Residential New Construction, Residential Consumer Products, Commercial New Construction, and Commercial and Industrial Lighting.

In the first two years of the Business Plan, NEEA facilitated the development of long-term regional strategic market plans for the commercial lighting and consumer products market. In 2017, NEEA’s focus will be on achieving even greater efficiency and regional collaboration as a result of continued plan implementation and increased shared ownership of the regional strategic market plans. It will also focus on expanded regional platforms to support multiple programs, increase volume of efficiency products and to expand regional data collection and analytics.

Residential Sector

In 2017, NEEA’s activities in the residential sector will be focused on two strategic markets: consumer products and new construction. Both of these markets represent long-term, leveraged opportunities for market transformation with significant energy savings and strong links to building codes and appliance standards.

Consumer Products Strategic Market

NEEA’s work within the Consumer Products Market leverages national manufacturer, retailer and distributor relationships to influence manufacturing practices, increase market share of efficient products, and increase voluntary specification and federal efficiency standards. Focus areas in 2017 include:

- Leveraging the retail platform to support NEEA and utility programs and pilots and strengthening relationships with key market partners; and

- Identifying barriers and opportunities for online retail and developing a strategy to influence the sale of energy efficient products online.

NEEA's portfolio currently includes four market transformation programs in the consumer products market.

- **Heat Pump Water Heaters:** In 2017, NEEA will focus on growing supply chain and unit sales, partnering with new manufacturers to support quality replacements and capturing the emergency replacement market. Program goals for 2017 include sales of more than 14,000 units and supporting the development of over 100 regional utility programs.
- **Ductless Heat Pumps:** In 2017, NEEA's Ductless Heat Pump program will have four focus areas: lowering installed costs; supporting utility programs through increased unit energy saving and cost-effectiveness; creating consumer education tools; and, and exploring new market segment opportunities. 2017 program goals include a 20% increase in sales for zonal and 15% increase for electric forced-air homes over 2016.
- **Super-Efficient Dryers:** In 2017, NEEA's Super-Efficient Dryers program will focus on making heat pump products available through regional big box retailers and supporting utility programs and the ENERGY STAR Most Efficiency dryer category. Program goals for 2017 include two multi-family pilot projects, two in-store promotion events, and supporting the development of at least five regional utility programs.
- **Retail Product Portfolio:** NEEA's Retail Products Portfolio (RPP) program uses mid-stream incentives to influence retail product purchasing practices – and ultimately drive manufacturing and standards – for a portfolio of energy-efficient products sold through the retail channel. In 2017, NEEA will focus on expanding retailer participation, streamlining the product selection process and solidifying the measurement and evaluation process.

Residential New Construction Strategic Market

This market includes the supply chain that plans, builds, sells and inspects new residential single-family, manufactured, and low-rise multi-family structures. NEEA's portfolio currently includes two market transformation programs in this strategic market.

- **Efficient New Homes:** In 2017, NEEA will continue to develop and support performance-based utility programs, support builder participation in Home Certification programs, and develop training and support for code changes. Program goals include achieving RTF approval for the Standard Modelling Protocol NEEA is developing, supporting five or more utility programs and establishing data-sharing agreements for Home Certifications.
- **Manufactured Homes:** One of NEEA's newest programs, Manufactured Homes was launched in May, 2016. The goal of this program is to leverage the Northwest Energy Efficient Manufactured Housing Program (NEEM) to ensure a voluntary above-code manufacturing specification exists after the upcoming HUD code change, allowing for future energy savings to be captured by the region. In 2017, NEEA's goals include establishing a new NEEM 2.0 specification, and supporting utility programs to shift incentives to the new specification.

Commercial Sector

In 2017, NEEA's activities in the commercial sector will be focused in its two strategic markets: Lighting and New Construction.

Commercial/ Industrial Lighting Strategic Market

NEEA's work within the Commercial/Industrial Lighting Strategic Market includes leveraging relationships with manufacturers, distributors and other industry groups to accelerate the adoption of highly-efficient commercial lighting products and operating practices. Focus areas in 2017 include:

- **Lighting Platform:** To support regional commercial lighting efficiency efforts, NEEA will develop and provide utilities with a platform of resources in 2017. These resources will include a sales database made available to the region for business decision-making, a pool of participating distributors built through the Reduced Wattage Replacement Lamp program, and support for regional coordination and collaboration.
- **Retail and Office Strategy:** NEEA staff will identify market transformation interventions that lend themselves best to accelerating LED and controls adoption in office and retail spaces.

NEEA's portfolio currently includes four market transformation programs in the commercial lighting market:

- **Reduced Wattage Replacement Lamps:** The goal of the Reduced Wattage Replacement Lamps program is to influence the stocking and promotion of reduced-wattage (28W and 25W) T8 lamps in the lighting maintenance market. In 2017, NEEA will focus on enrolling non-traditional channels, bundling program offerings with funder programs in a mid-stream regional platform and continuing to provide outreach and incentives to drive sales. Program goals include capturing 50% of regional distributor market share for T8 lamps.
- **Luminaire Level Lighting Controls:** NEEA and its partners will develop best practices for luminaire level lighting controls, with the goal of having the technology installed as a standard industry practice in commercial office lighting. In 2017, the program will focus on conducting market research and launching demonstration projects with at least two utilities.
- **Top Tier Trade Ally Advanced Training (optional):** This is an optional program per NEEA's business plan, which Pacific Power has opted to fund. The Top Tier Trade Ally Advanced Training program accelerates the market adoption of advanced lighting retrofit practices by connecting contractors with training resources and utility programs. In 2017, NEEA will continue to work with utility partners to offer NXT Level 1 training, with a goal of at least 60 people trained. Contingent upon the success of NXT level 1, NEEA will also develop and pilot the second module in the training series, NXT Level 2.
- **Commercial Lighting Infrastructure:** To influence the market to adopt more efficient lighting technology, NEEA provides and maintains a set of tools and resources to support utility lighting programs, including the NW Lighting Network and Online Basics Lighting Training. NEEA will also continue to represent the region in the Design Lights Consortium.

Commercial New Construction Strategic Market

This market includes the community of businesses that develop, plan, design, build and commission new commercial buildings.

- **Commercial Code Enhancement (formerly Commercial New Construction):** In 2016, NEEA launched a new initiative in the commercial new construction market. The goal of the Commercial Code Enhancement program is to increase the region's ability to propose, adopt, and implement more efficient commercial building energy codes. In 2017, NEEA will develop an action plan to advance code in Washington State, and complete a technology assessment as a first step to building support for advanced technologies.

- **Integrated Design Labs:** In 2017, NEEA-supported Integrated Design Lab Network will continue innovating and supporting new projects and major building renewal projects. NEEA will also support development of tools needed to advance integrated design, construction and operation of low-energy consumption buildings.

Commercial Buildings (other strategic market)

- **Commercial Real Estate/Existing Building Renewal (*optional*):** This is an optional program per NEEA's business plan, which Pacific Power has opted to fund. In 2017, the program will focus on enabling engagement with decision makers (e.g. building owners and executives), and launching an online Navigator tool.
- **Commercial Window Attachments (formerly Secondary Window Glazing):** In 2016, NEEA launched a program to accelerate the market adoption of interior secondary window glazing for commercial buildings. Commercial window attachments are super-insulating interior windows that can be installed without replacing the existing windows at 50% the cost of new windows. In 2017, the program will focus on supporting AERC (Attachment Efficiency Rating Council) certifications, launching two utility pilots, and establishing a market baseline and energy savings rate for this product.

Industrial Sector

In the 2015-2019 Business Plan, NEEA's industrial sector activities focus on supporting local utility efforts by providing regional resources (e.g. tools and training, etc.) and delivering a few market transformation initiatives in areas where NEEA's regional leverage is advantageous.

- **Certified Refrigeration Energy Specialist (CRES):** NEEA has partnered with RETA (the national Refrigerating Engineers & Technicians Association) to develop, launch and promote an energy efficiency certification. The CRES certification increases industrial facility energy efficiency and provides a competitive advantage to refrigeration engineers across the region. In 2017, the program will focus on increasing the number of certificants and supporting ANSI accreditation for the certification.
- **Commercial and Industrial Strategic Energy Management (SEM):** NEEA's commercial and industrial Strategic Energy Management infrastructure program provides a holistic and integrated set of tools that support utilities and the market in building market capability, awareness and demand for SEM. In 2017, the program will continue to facilitate regional collaboration on SEM challenges and opportunities and provide standardized tools and resources through the online SEM hub (launching in 2016).
- **Industrial Technical Training (*optional*):** This is an optional program, which Pacific Power has opted to fund during NEEA's 2015-2019 business cycle. In 2017, NEEA will continue its Industrial Technical Training program, which provides coordinated training on key industrial energy efficiency concepts to support industrial energy efficiency programs and build market capacity to facilitate implementation of Strategic Energy Management.

Codes and Standards

In 2017, NEEA will continue to support Northwest states in adopting and implementing increasingly efficiency energy codes and work to positively influence the federal standards-setting process.

- **Codes:** In 2017, NEEA will develop a new code change communication process to support improved communication between utilities and code developers. Program staff will begin working on Washington State 2019 code change development and continue the commercial code evaluation already underway in Oregon and Washington. The program will also provide support for market transformation programs (i.e. Commercial Code Enhancement, Next Step Homes), product testing (e.g. variable speed heat pumps), and field trials (dedicated outside air supply/ heat recovery ventilation).
- **Standards:** In 2017, NEEA staff will continue to provide input into the development and rollout of regional standards, and ensure the collective voice of the Northwest is represented in national standards rulemakings. Likely standards processes in which NEEA staff will be involved include: room air conditioners, clothes dryers, refrigerators, dish washers, air compressors, fans, fluorescent lamp ballasts, and small motors.

NATURAL GAS MARKET TRANSFORMATION

In 2015, NEEA's Board of Directors approved its first Natural Gas Market Transformation Business Plan for 2015-2019. The goal of the plan, which was developed collaboratively with NEEA's gas utility funders and others, is to accelerate the development and market adoption of efficient natural gas products, services, and practices, resulting in improved consumer choice and increased efficiency of natural gas use in the Northwest.

The plan includes funding for scanning activities, codes and standards, research and evaluation and five market transformation programs:

- Gas-fired heat pump water heaters
- Combination space and water heating systems
- Hearth products
- Super-efficient gas clothes dryers
- Rooftop HVAC

Natural Gas Portfolio

- **Gas-fired heat pump water heaters:** NEEA is working to accelerate product development of gas-fired heat pump water heater technology and to create market conditions that accelerate market adoption in order to influence a federal manufacturing standard. In 2016, NEEA completed a successful field trial of a gas-fired heat pump water heater and made refinements to the product based on the results. Program priorities for 2017 include broadened manufacturer engagement, creating a product specification, and scanning for additional technologies.
- **Combination space and water heating systems:** NEEA is creating and leveraging its relationships with key market partners to develop a combination space and water heating system at an efficiency exceeding current high-efficiency furnaces and stand-alone gas water heater technology. In 2016, NEEA launched a controlled field test and prototype testing of a combination system. In 2017, NEEA will complete the field study, evaluate the technology value proposition, and scan for new combination system technologies including a residential internal combustion engine heat pump.

- **Hearth Products:** The goal of this program is to increase the adoption of high-efficiency hearth products by influencing product assortment and manufacturing practices. In 2016, NEEA identified two potential market transformation opportunities for Hearth product and launched research to increase understanding of energy savings opportunities. 2017 program priorities include completing pilot light retrofit work, finalizing the market characterization study, and completing low-capacity product testing.
- **Super-efficient clothes dryers:** The goal of this program is to increase the market adoption of super-efficient, natural gas-powered clothes dryers to influence the enactment of more stringent ENERGY STAR specification and ultimately federal efficiency standards. In 2016, NEEA staff conducting lab testing of efficient dryers and worked with regional stakeholders to identify a market transformation strategy. NEEA's 2017 priority for efficient clothes dryers is to participate in the federal rulemaking process for gas dryers by influencing the test procedure.
- **Rooftop HVAC:** The goal of this program is to increase market adoption of rooftop HVAC units containing gas-fired heating units in both new and retrofit markets. In 2016, NEEA launched a field study of a rooftop HVAC unit and conducted research to better understand the market opportunity for this product. In 2017, the program will focus on completing the field demonstration project, developing a product specification and engaging the supply chain.

DELIVERING REGIONAL SERVICES

On behalf of the alliance, and to support local utility programs and NEEA's market transformation programs, NEEA provides regional services such as data collection and analysis, program evaluation, regional coordination and more.

Regional Services

- **Regional Market Intelligence:** In 2017, NEEA will continue to provide funders and regional stakeholders with timely analysis for better data-based decision making. A core objective for 2017 will be creating a 'Data Hub' for staff and funders to create operational efficiencies and share regional insights that will impact market understanding and strategy.
- **Market Research and Evaluation:** NEEA's Market Research & Evaluation team will continue to work with third-party evaluators to assess its market transformation programs and deliver market characterization and market assessment reports. In addition, NEEA will continue work on two large building stock assessments that began in 2016: the Residential Building Stock Assessment and the Commercial Building Stock Assessment.
- **Market Planning:** NEEA's Market Planning team manages the forecasting and reporting of savings for both current- and previously-funded initiatives and other value metrics. In 2017, staff will implement a new Annual Reporting approach to standardize the process and expedite funder reports.

Stakeholder Engagement Opportunities and Advisory Committees

- **Efficiency Exchange conference:** Co-hosted by NEEA and BPA, Efficiency Exchange is a networking and learning conference for energy efficiency professionals from across the

Northwest. The 2017 Efficiency Exchange Conference will be held at the Oregon Convention Center in Portland, Oregon on May 9-10.

- **Conduit (conduitnw.org):** A partnership between NEEA and BPA, Conduit is an online community that provides information sharing, coordination and collaboration among energy efficiency professionals in the Northwest.
- **Advisory Committees:** In 2017, NEEA will continue to facilitate regional collaboration and solicit regional input through its advisory committees and work groups. Pacific Power is represented of each of NEEA's advisory committees and most of its work groups.

Additional Information

More information on NEEA's market transformation programs, as well as NEEA's quarterly and annual reports, can be found at neea.org.

Questions or comments about this report? Please contact Virginia Mersereau, Communications Manager, 503-688-5491, vmersereau@neea.org.

Customer Outreach and Communications

Years of Implementation

In 2011, the Company implemented *wattsmart*, the demand-side management communication and outreach campaign. The *wattsmart* 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 *wattsmart* 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 *wattsmart* campaign in 2016.

Communication Channel	Value to Communication Portfolio
Television	Advertisements were rotated, both 30-second and 15-second TV spots, with an average of 75 television placements each week from January through February, April through June, and November through December 2016. Stations on which campaign spots aired include: KAPP (ABC), KCYU (FOX), KIMA (CBS), KNDO (NBC), KUNW (UNIV) and Charter (Cable).
Radio	An average of 86 radio spots ran per week from January through February, April through June, and November through December 2016. Radio stations on which campaign spots aired include: KARY-FM (Oldies), KATS-FM (Adult Oriented Rock), KDBL-FM (Country), KFFM-FM (CHR), KHHK-FM (CHR), KMMG-FM (Mexican Regional), KRSE-FM (Classic Rock), KUTI-AM (Sports), KZTA-FM (Mexican Regional) Tri Cities Stations: KEGX-FM (Classic Rock), KEYW-FM (Hot AC), KFLD-AM (News/Talk), KIOK-FM (New Country), KKSJ-FM (Classic Hits), KOLW-FM (CHR), KONA-FM (AC), KORD-FM (Country), KUJ-FM (CHR), KXXR-FM (AOR), and KZTB-FM (Mexican Regional)
Newspaper	Newspaper placements included: Dayton Chronicle, La Voz Hispanic News, The Waitsburg Times, Walla Walla Union-Bulletin and Yakima Herald-Republic.

Communication Channel	Value to Communication Portfolio
Website: Pacificpower.net/ <i>wattsmart</i> Bewattsmart.com	Pacific Power’s <i>wattsmart</i> website, pacificpower.net/ <i>wattsmart</i> , and promotional URL bewattsmart.com link directly to the energy efficiency 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 programs and other energy efficiency opportunities.
Twitter	Other interactive campaign elements such as online media and social media work with traditional media to enhance the campaign by driving traffic to the program websites. Energy efficiency tweets are scheduled on a weekly basis.
Facebook	Facebook is used to build awareness for early adopters regarding energy efficiency tips and provides a forum to share information. Information and tips are posted three times a week. We also use promoted posts and mobile posts to help expand the reach. In addition, paid Facebook ads encourage clicks to drive traffic to the website.
Other Online	Digital advertising supports the broadcast and print media in increasing awareness to a segment of customers who are likely to be receptive to energy-saving messaging. Some of these uses include banner ads on sites such as Pandora and WeatherBug, behavioral ad targeting, demographic targeting, geographic targeting and pay-per-click ad placements.

The 2016-2017 Communications and Outreach plan was reviewed with the Demand-side Management Advisory Group on December 18, 2015. The 2016-2017 plan contained all the same components of the 2015 plan with the additional focus on Facebook advertising, an increased digital presence, the addition of television to target business customers, and a decrease in newspaper and magazine advertising.

The Company’s 2016 research showed that among Washington respondents, 57 percent residential and 68 percent non-residential are familiar with wattsmart energy efficiency programs from their utility. More than 69 percent of residential and 52 percent of non-residential respondents report taking action to reduce their energy use in the past year. Of those persuaded to take action, the most common actions are switching to energy efficient appliances/lights and shutting off lights/appliances when not in use. Residential customers also reduced their thermostat settings. More than half of residential (53 percent) and non-residential (58 percent) respondents in Washington are making these changes to both save money and help the environment.

The Company will continue to highlight existing *wattsmart* Business program participants and encourage other businesses to pursue energy efficiency upgrades in order to boost their bottom lines, enhance their workplaces and realize other benefits. The enhanced communications targeted to businesses will be rotated in with the existing *wattsmart* campaign.

The objectives of the communications and outreach campaign in the 2016-17 biennium are to continue 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. In 2016-2017, the Company will develop new creative for the residential campaign and continue building on the success of the existing wattsmart integrated communications campaign including the use of television advertising to target business customers. The Company will continue to highlight existing wattsmart Business program participants and encourage other businesses to pursue energy efficiency upgrades in order to boost their bottom lines, enhance their workplaces and realize other benefits.

Proposed adjustments for 2017

Communication Tactic	2017
Television: A selection of ads will be rotated, both 30-second and 15-second TV spots, with an average of 100 TV placements each week that the campaign is on the air. KAPP (ABC), KIMA (CBS), KNDO (NBC), KUNV (UNIV) and Charter (Cable).	Develop new residential creative and continue to refine messaging based on customer research. Update Spanish language creative. Utilize and build upon wattsmart Business creative developed in 2016 to promote business efficiency.
Radio: Radio stations on which campaign spots will air include KARY-FM (Oldies), KATS-FM (Classic Rock), KDBL-FM (Country), KFFM-FM (Contemporary Hits), KHHK-FM (Rhythmic CHR) KRSE-FM (Modern), KXDD-FM (Country), KZTA-FW (Mexican Regional).	Develop new residential creative and continue to refine messaging based on customer research. Update Spanish language creative. Utilize and build upon <i>wattsmart</i> Business creative developed in 2016 to promote business efficiency.
Newspaper Dayton Chronicle, The East Washingtonian, La Voz Hispanic News, The Waitsburg Times, Walla Walla Union Bulletin and Yakima Herald-Republic.	Develop new residential creative and continue to refine messaging based on customer research. Update Spanish language creative. Utilize and build upon wattsmart Business creative developed in 2016 to promote business efficiency.
Web: pacificpower.net/wattsmart , and promotional URL bewattsmart.com link directly to the energy efficiency landing page.	Messages rotate each month based on the season. Continue to simplify the web pages and get the customers to the information they are looking for more easily.
Twitter	Tweets posted on a weekly basis.

Communication Tactic	2017
Facebook	Information and tips posted three - five times a week. Promoted posts and mobile ads are also recommended where appropriate. Promote business case studies and “ <i>watt</i> smart Business to watch” to get additional leverage from these tools.
Digital	Include banner ads on local sites, blogs, behavioral ad targeting, and pay-per-click ad placements and digital search for business customers. Explore digital pre-roll for business customers.
PR: Capitalize on existing assets and tools to deploy news media outreach and consumer engagement efforts that are aligned with marketing (corporate) objectives.	Information will be focused on promoting business case studies and seasonal messaging.

The Company will review the 2017 plan with the demand-side advisory group during the 2016 fourth quarter meeting, request comments and prepare final plan for 2017. Given the dynamic nature of communications, the Company will develop a plan for the 2018-2019 biennium and review with the Demand-side Management Advisory Group in the fourth quarter of 2017 and seek their comments to shape the final 2018-2019 plan.

Cost Effectiveness

The cost-effectiveness of individual programs and the portfolio for 2017 described below was assessed based on forecasted expenditures and energy savings.

Cost-effectiveness is provided at the following levels:

- Individual program¹⁹ or initiative²⁰ level
- Residential energy efficiency portfolio (Company programs)
- Non-residential energy efficiency portfolio(Company programs) ²¹
- 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

Consistent with the new rules and staff direction, cost-effectiveness for the low-income weatherization program will not be assessed at a program or portfolio level. Reporting for the program will include number of residences weatherized, number of measures installed, energy savings and total expenditures.

The Home Energy Report offer will continue through 2017 and utilize a two year measure life assumption for the 2016-2017 period. No additional savings (beyond the first year savings reported in 2016) are forecast for 2017. Report costs are expected for 2017 and are necessary to maintain the savings. Costs for 2017 reports will be included as a specific line item in the residential portfolio, but no additional benefits will be included.

Cost-effectiveness calculations are consistent with the Evaluation, Measurement & Verification Framework for Washington (v 9-28-15). The energy savings attributed to each program are shaped according to specific end-use 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 2015 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, and Program Evaluations (and savings verification).

¹⁹ Home Energy Savings, Home Energy Reports

²⁰ NEEA

²¹ *wattsmart* Business

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.

The five California Standard Practice Manual cost effectiveness tests as modified in the Northwest were utilized in the cost benefit analysis. Additional information on cost effectiveness in WAC and the test utilized by the council is provided below.

As specified in WAC 480-109-100, “A utility’s conservation portfolio must pass a cost effectiveness test consistent with that used in the Northwest Conservation and Electric Power Plan. A utility must evaluate conservation using the cost effectiveness test consistent with those used by the council and as required by the commission except as provided by WAC 480-109-100 (10).”

The Northwest Power and Conservation Council’s Seventh Power Plan provides information on cost effectiveness on page G-11 of Appendix G. *“The Council uses the total resource net levelized cost (TRC net levelized cost) for its analysis of the cost of the conservation measures, which is similar to the Societal Cost Test outlined in the National Action Plan for Energy Efficiency and the California Standard Practice Manual.”*

The *National Action Plan for Energy Efficiency* provides information on cost effectiveness and specifics of each test in *Understanding the Cost Effectiveness of Energy Efficiency Programs* available at the following link.

<https://www.epa.gov/sites/production/files/2015-08/documents/cost-effectiveness.pdf>

The benefits and costs for each test are outlined in Tables 3-1 and 3-2 of the “*Understanding*” document

The PacifiCorp Total Resource Cost (PTRC) test results in the Navigant Consulting analysis include the 10 percent Conservation Adder and quantifiable non-energy benefits and is analogous to the Societal Cost Test (SCT) referenced by the Council. The results for the other four standard tests are also provided in the analysis.

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

Appendix One

Program and Portfolio-Level Cost-Effectiveness



Memorandum

To: Angela Long, Pacific Power
From: David Basak, Navigant
Date: October 19, 2016
Re: Cost-Effectiveness Results for the Portfolio and Sector Level - Washington

Navigant estimated the cost-effectiveness for the overall energy efficiency portfolio and component sectors, based on PY2017 costs and savings estimates provided by PacifiCorp. This memo provides the cost-effectiveness results for the overall energy efficiency portfolio and the two sector components. PacifiCorp evaluates program cost-effectiveness based on the PacifiCorp Total Resource Cost Test (PTRC) plus a 10% Conversation Adder and Non-energy Benefits (NEB). The memo consists of the following tables.

Table 1 - Utility Inputs
Table 2 – Portfolio Level Costs
Table 3 – Costs by Program
Table 4 – Savings by Program
Table 5 – Home Energy Savings Non-Energy Benefits
Table 6 - Benefit/Cost Ratios by Portfolio Type
Table 8 - Home Energy Savings (HES) Cost-Effectiveness Results
Table 9 - Home Energy Reporting (HER) Cost-Effectiveness Results
Table 10 – Wattsmart Business Cost-Effectiveness Results
Table 11 - NEEA Cost-Effectiveness Results
Table 12 - Benefit/Cost Ratios by Portfolio and Sector Type
Table 13 – Residential Energy Efficiency Portfolio Cost-Effectiveness Results
Table 14 - Residential Energy Efficiency Portfolio Cost-Effectiveness Results (Including NEBs)
Table 15 - Residential Energy Efficiency Portfolio Cost-Effectiveness Results (Including NEEA)
Table 16 - Residential Energy Efficiency Portfolio Cost-Effectiveness Results (Including NEBs and NEEA)
Table 17 – Non-Residential Energy Efficiency Portfolio Cost-Effectiveness Results
Table 18 – Non-Residential Energy Efficiency Portfolio Cost-Effectiveness Results (Including NEEA)
Table 19 – Total Portfolio Cost-Effectiveness Results
Table 20 - Total Portfolio Cost-Effectiveness Results (Including NEBs)
Table 21 - Total Portfolio Cost-Effectiveness Results (Including NEEA)
Table 22 - Total Portfolio Cost-Effectiveness Results (Including NEBs and NEEA)

Table 1 - Utility Inputs

Parameter	Value
Discount Rate	6.66%
Residential Line Loss	9.67%
Commercial Line Loss	9.53%
Industrial Line Loss	8.16%
Residential Energy Rate (\$/kWh)(base year 2015)	\$0.0919
Commercial Energy Rate (\$/kWh)(base year 2015)	\$0.0851
Industrial Energy Rate (\$/kWh)(base year 2015)	\$0.0692
Inflation Rate	1.9%

¹ Future rates determined using a 1.9% annual escalator.

Table 2 – Portfolio Level Costs

Description	Cost
Be wattsmart, Begin at Home	\$60,947
Customer outreach/communication	\$250,000
Program Evaluations (& savings verification)	\$333,666
Total Costs	\$644,613

Table 3 – Costs by Program

	Program Delivery	Utility Admin	Incentives	Total Utility Costs	Gross Customer Costs
Home Energy Savings (HES)	\$997,032	\$75,000	\$2,325,371	\$3,397,403	\$4,564,815
Home Energy Reporting (HER)	\$376,907	\$0	\$0	\$376,907	\$0
Wattsmart Business	\$3,018,248	\$173,000	\$3,340,478	\$6,531,726	\$9,770,001
NEEA (Northwest Energy Efficiency Alliance)	\$911,483	\$0	\$0	\$911,483	\$0
Total	\$5,303,670	\$248,000	\$5,665,849	\$11,217,519	\$14,334,817

Table 4 – Savings by Program

	Gross kWh Savings	Realization Rate	Adjusted Gross kWh Savings	Net to Gross Ratio	Net kWh Savings	Measure Life
Home Energy Savings (HES)	10,835,081	100%	10,835,081	100%	10,835,081	13
Home Energy Reporting (HER)	0	0%	0	0%	0	N/A
Wattsmart Business	26,994,515	93%	25,068,590	100%	25,068,590	14

	Gross kWh Savings	Realization Rate	Adjusted Gross kWh Savings	Net to Gross Ratio	Net kWh Savings	Measure Life
NEEA	2,799,506	100%	2,799,506	100%	2,799,506	10
Total	40,629,102	95%	38,703,177	100%	38,703,177	14

Table 5 – Home Energy Savings Non-Energy Benefits

Measure Category	Quantity	Non-Energy Benefits Water (\$/yr)	Non-Energy Benefits Other (\$/yr)	Measure Life	Total NEB (\$/yr)	Total Present Value Benefits
Clothes Washers - 2.75 IMEF or Higher - Electric DHW & Electric Dryer	141	\$23.28	\$0.00	14	\$221.65	\$31,253
Clothes Washers - 2.75 IMEF or Higher - Electric DHW & Gas Dryer	40	\$23.28	\$0.00	14	\$221.65	\$8,866
Clothes Washers - 2.75 IMEF or Higher - Gas DHW & Electric Dryer	15	\$23.28	\$0.00	14	\$221.65	\$3,325
Heat Pump Clothes Dryer - Ventless	10	\$0.00	\$54.11	12	\$466.82	\$4,668
Ductless Heat Pump - Zonal to DHP HSPF 9.0 and above	57	\$45.76	\$0.00	15	\$454.24	\$25,892
Manufactured Homes Ductless Heat Pump - Zonal to DHP HSPF 9.0 and above	5	\$45.76	\$0.00	15	\$454.24	\$2,271
New Homes Ductless Heat Pump	1	\$0.00	\$51.48	15	\$511.02	\$511
CFLs - General Purpose - Retail	30,000	\$0.00	\$0.93	6	\$4.78	\$143,345
CFLs - Specialty - Retail	6,000	\$0.00	\$3.18	5	\$14.03	\$84,207
LEDs - General Purpose (Omnidirectional) - Retail	235,150	\$0.00	\$0.75	12	\$6.47	\$1,521,537
LEDs - Specialty (Decorative and Directional) - Retail	106,992	\$0.00	\$0.88	12	\$7.59	\$812,289
Energy Savings Kit - Basic - 1 Bathroom	745	\$20.53	\$3.08	7	\$139.55	\$103,962
Energy Savings Kit - Basic - 2 Bathrooms	1,315	\$41.06	\$3.08	9	\$307.56	\$404,442
Energy Savings Kit - Best - 1 Bathroom	41	\$20.53	\$2.60	11	\$189.84	\$7,783
Energy Savings Kit - Best - 2 Bathrooms	161	\$41.06	\$2.60	11	\$358.34	\$57,693
Energy Savings Kit - Better - 1 Bathroom	16	\$20.53	\$3.08	9	\$164.51	\$2,632
Energy Savings Kit - Better - 2 Bathrooms	39	\$41.06	\$3.08	9	\$307.56	\$11,995
Energy Savings Kit - CFL	395	\$0.00	\$3.08	5	\$13.59	\$5,369
Energy Savings Kit - LED	38	\$0.00	\$2.60	12	\$22.43	\$852

Table 6 - Benefit/Cost Ratios by Portfolio Type

	PTRC	TRC	UCT	RIM	PCT
Home Energy Savings (HES)	1.56	1.42	2.35	0.59	2.71
Home Energy Savings (HES) with NEBs	2.14	2.00	2.35	0.59	3.43
Home Energy Reporting (HER)	n/a	n/a	n/a	n/a	n/a
Wattsmart Business	1.60	1.45	2.97	0.68	2.46
NEEA	1.55	1.41	1.41	0.42	n/a

Table 7 – Home Energy Savings (HES) Cost-Effectiveness Results

Cost-Effectiveness Test	Levelized \$/kWh	Costs	Benefits	Net Benefits	Benefit/Cost Ratio
Total Resource Cost Test (PTRC) + Conversation Adder	\$0.0552	\$5,636,847	\$8,789,606	\$3,152,758	1.56
Total Resource Cost Test (TRC) No Adder	\$0.0552	\$5,636,847	\$7,990,551	\$2,353,703	1.42
Utility Cost Test (UCT)	\$0.0333	\$3,397,403	\$7,990,551	\$4,593,147	2.35
Rate Impact Test (RIM)		\$13,460,598	\$7,990,551	-\$5,470,048	0.59
Participant Cost Test (PCT)		\$4,564,815	\$12,388,566	\$7,823,751	2.71
Lifecycle Revenue Impacts (\$/kWh)					\$0.0001055971
Discounted Participant Payback (years)					2.08

Table 8 - Home Energy Savings (HES) Cost-Effectiveness Results (Including NEBs)

Cost-Effectiveness Test	Levelized \$/kWh	Costs	Benefits	Net Benefits	Benefit/Cost Ratio
Total Resource Cost Test (PTRC) + Conversation Adder	\$0.0552	\$5,636,847	\$12,076,831	\$6,439,983	2.14
Total Resource Cost Test (TRC) No Adder	\$0.0552	\$5,636,847	\$11,277,776	\$5,640,928	2.00
Utility Cost Test (UCT)	\$0.0333	\$3,397,403	\$7,990,551	\$4,593,147	2.35
Rate Impact Test (RIM)		\$13,460,598	\$7,990,551	-\$5,470,048	0.59
Participant Cost Test (PCT)		\$4,564,815	\$15,675,791	\$11,110,976	3.43
Lifecycle Revenue Impacts (\$/kWh)					\$0.0001055971
Discounted Participant Payback (years)					2.08

Table 9 - Home Energy Reporting (HER) Cost-Effectiveness Results

Cost-Effectiveness Test	Levelized \$/kWh*	Costs	Benefits	Net Benefits	Benefit/Cost Ratio
Total Resource Cost Test (PTRC) + Conversation Adder	n/a	\$376,907	\$0	-\$376,907	n/a

Cost-Effectiveness Test	Levelized \$/kWh*	Costs	Benefits	Net Benefits	Benefit/Cost Ratio
Total Resource Cost Test (TRC) No Adder	n/a	\$376,907	\$0	-\$376,907	n/a
Utility Cost Test (UCT)	n/a	\$376,907	\$0	-\$376,907	n/a
Rate Impact Test (RIM)		\$376,907	\$0	-\$376,907	n/a
Participant Cost Test (PCT)		\$0	\$0	\$0	n/a
Lifecycle Revenue Impacts (\$/kWh)					\$0.0000934194
Discounted Participant Payback (years)					n/a

*All first year savings will have been reported in 2016

Table 10 – Wattsmart Business Cost-Effectiveness Results

Cost-Effectiveness Test	Levelized \$/kWh	Costs	Benefits	Net Benefits	Benefit/Cost Ratio
Total Resource Cost Test (PTRC) + Conversation Adder	\$0.0508	\$12,597,075	\$20,115,742	\$7,518,667	1.60
Total Resource Cost Test (TRC) No Adder	\$0.0508	\$12,597,075	\$18,287,038	\$5,689,963	1.45
Utility Cost Test (UCT)	\$0.0249	\$6,167,551	\$18,287,038	\$12,119,487	2.97
Rate Impact Test (RIM)		\$26,878,040	\$18,287,038	-\$8,591,001	0.68
Participant Cost Test (PCT)		\$9,770,001	\$24,050,966	\$14,280,965	2.46
Lifecycle Revenue Impacts (\$/kWh)					\$0.0001520121
Discounted Participant Payback (years)					3.43

Table 11 - NEEA Cost-Effectiveness Results

Cost-Effectiveness Test	Levelized \$/kWh	Costs	Benefits	Net Benefits	Benefit/Cost Ratio
Total Resource Cost Test (PTRC) + Conversation Adder	\$0.0417	\$911,483	\$1,411,969	\$500,486	1.55
Total Resource Cost Test (TRC) No Adder	\$0.0417	\$911,483	\$1,283,608	\$372,125	1.41
Utility Cost Test (UCT)	\$0.0417	\$911,483	\$1,283,608	\$372,125	1.41
Rate Impact Test (RIM)		\$3,024,986	\$1,283,608	-\$1,741,378	0.42
Participant Cost Test (PCT)		\$0	\$2,113,503	\$2,113,503	n/a
Lifecycle Revenue Impacts (\$/kWh)					\$0.0000165953
Discounted Participant Payback (years)					n/a

Table 12 - Benefit/Cost Ratios by Portfolio and Sector Type

	PTRC	TRC	UCT	RIM	PCT
Residential Programs	1.46	1.33	2.12	0.58	2.71
Residential Programs (Including NEBs)	2.01	1.88	2.12	0.58	3.43
Residential Programs (Including NEEA)	1.46	1.33	2.00	0.55	3.07
Residential Programs (Including NEBs & NEEA)	1.95	1.82	2.00	0.55	3.79
Non-Residential Programs	1.60	1.45	2.97	0.68	2.46
Non-Residential Programs (Including NEEA)	1.60	1.45	2.92	0.68	2.51
Total Portfolio	1.50	1.36	2.48	0.64	2.54
Total Portfolio (Including NEBs)	1.67	1.54	2.48	0.64	2.77
Total Portfolio (Including NEEA)	1.50	1.37	2.40	0.62	2.69
Total Portfolio (Including NEBs & NEEA)	1.67	1.53	2.40	0.62	2.92

Table 13 – Residential Energy Efficiency Portfolio Cost-Effectiveness Results

Cost-Effectiveness Test	Levelized \$/kWh	Costs	Benefits	Net Benefits	Benefit/Cost Ratio
Total Resource Cost Test (PTRC) + Conversation Adder	\$0.0589	\$6,013,754	\$8,789,606	\$2,775,851	1.46
Total Resource Cost Test (TRC) No Adder	\$0.0589	\$6,013,754	\$7,990,551	\$1,976,796	1.33
Utility Cost Test (UCT)	\$0.0370	\$3,774,310	\$7,990,551	\$4,216,240	2.12
Rate Impact Test (RIM)		\$13,837,505	\$7,990,551	-\$5,846,955	0.58
Participant Cost Test (PCT)		\$4,564,815	\$12,388,566	\$7,823,751	2.71
Lifecycle Revenue Impacts (\$/kWh)					\$0.000120752

Table 14 - Residential Energy Efficiency Portfolio Cost-Effectiveness Results (Including NEBs)

Cost-Effectiveness Test	Levelized \$/kWh	Costs	Benefits	Net Benefits	Benefit/Cost Ratio
Total Resource Cost Test (PTRC) + Conversation Adder	\$0.0589	\$6,013,754	\$12,076,831	\$6,063,076	2.01
Total Resource Cost Test (TRC) No Adder	\$0.0589	\$6,013,754	\$11,277,776	\$5,264,021	1.88
Utility Cost Test (UCT)	\$0.0370	\$3,774,310	\$7,990,551	\$4,216,240	2.12
Rate Impact Test (RIM)		\$13,837,505	\$7,990,551	-\$5,846,955	0.58
Participant Cost Test (PCT)		\$4,564,815	\$15,675,791	\$11,110,976	3.43
Lifecycle Revenue Impacts (\$/kWh)					\$0.000120752

Table 15 - Residential Energy Efficiency Portfolio Cost-Effectiveness Results (Including NEEA)

Cost-Effectiveness Test	Levelized \$/kWh	Costs	Benefits	Net Benefits	Benefit/Cost Ratio
Total Resource Cost Test (PTRC) + Conversation Adder	\$0.0565	\$6,697,367	\$9,800,151	\$3,102,784	1.46
Total Resource Cost Test (TRC) No Adder	\$0.0565	\$6,697,367	\$8,909,228	\$2,211,862	1.33
Utility Cost Test (UCT)	\$0.0376	\$4,457,923	\$8,909,228	\$4,451,306	2.00
Rate Impact Test (RIM)		\$16,135,895	\$8,909,228	-\$7,226,667	0.55
Participant Cost Test (PCT)		\$4,564,815	\$14,003,343	\$9,438,528	3.07
Lifecycle Revenue Impacts (\$/kWh)					\$0.000149246

Table 16 - Residential Energy Efficiency Portfolio Cost-Effectiveness Results (Including NEBs and NEEA)

Cost-Effectiveness Test	Levelized \$/kWh	Costs	Benefits	Net Benefits	Benefit/Cost Ratio
Total Resource Cost Test (PTRC) + Conversation Adder	\$0.0565	\$6,697,367	\$13,087,376	\$6,390,009	1.95
Total Resource Cost Test (TRC) No Adder	\$0.0565	\$6,697,367	\$12,196,453	\$5,499,087	1.82
Utility Cost Test (UCT)	\$0.0376	\$4,457,923	\$8,909,228	\$4,451,306	2.00
Rate Impact Test (RIM)		\$16,135,895	\$8,909,228	-\$7,226,667	0.55
Participant Cost Test (PCT)		\$4,564,815	\$17,290,568	\$12,725,753	3.79
Lifecycle Revenue Impacts (\$/kWh)					\$0.000149246

Table 17 – Non-Residential Energy Efficiency Portfolio Cost-Effectiveness Results

Cost-Effectiveness Test	Levelized \$/kWh	Costs	Benefits	Net Benefits	Benefit/Cost Ratio
Total Resource Cost Test (PTRC) + Conversation Adder	\$0.0508	\$12,597,075	\$20,115,742	\$7,518,667	1.60
Total Resource Cost Test (TRC) No Adder	\$0.0508	\$12,597,075	\$18,287,038	\$5,689,963	1.45
Utility Cost Test (UCT)	\$0.0249	\$6,167,551	\$18,287,038	\$12,119,487	2.97
Rate Impact Test (RIM)		\$26,878,040	\$18,287,038	-\$8,591,001	0.68
Participant Cost Test (PCT)		\$9,770,001	\$24,050,966	\$14,280,965	2.46
Lifecycle Revenue Impacts (\$/kWh)					\$0.000163744

Table 18 – Non-Residential Energy Efficiency Portfolio Cost-Effectiveness Results (Including NEEA)

Cost-Effectiveness Test	Levelized \$/kWh	Costs	Benefits	Net Benefits	Benefit/Cost Ratio
Total Resource Cost Test (PTRC) + Conversation Adder	\$0.0506	\$12,824,946	\$20,517,166	\$7,692,220	1.60
Total Resource Cost Test (TRC) No Adder	\$0.0506	\$12,824,946	\$18,651,969	\$5,827,023	1.45
Utility Cost Test (UCT)	\$0.0252	\$6,395,422	\$18,651,969	\$12,256,547	2.92
Rate Impact Test (RIM)		\$27,604,637	\$18,651,969	-\$8,952,668	0.68
Participant Cost Test (PCT)		\$9,770,001	\$24,549,692	\$14,779,691	2.51
Lifecycle Revenue Impacts (\$/kWh)					\$0.000170637

Table 19 – Total Portfolio Cost-Effectiveness Results

Cost-Effectiveness Test	Levelized \$/kWh	Costs	Benefits	Net Benefits	Benefit/Cost Ratio
Total Resource Cost Test (PTRC) + Conversation Adder	\$0.0550	\$19,255,443	\$28,905,348	\$9,649,906	1.50
Total Resource Cost Test (TRC) No Adder	\$0.0550	\$19,255,443	\$26,277,589	\$7,022,147	1.36
Utility Cost Test (UCT)	\$0.0302	\$10,586,475	\$26,277,589	\$15,691,115	2.48
Rate Impact Test (RIM)		\$41,360,158	\$26,277,589	-\$15,082,569	0.64
Participant Cost Test (PCT)		\$14,334,817	\$36,439,532	\$22,104,716	2.54
Lifecycle Revenue Impacts (\$/kWh)					\$0.000287473

Table 20 - Total Portfolio Cost-Effectiveness Results (Including NEBs)

Cost-Effectiveness Test	Levelized \$/kWh	Costs	Benefits	Net Benefits	Benefit/Cost Ratio
Total Resource Cost Test (PTRC) + Conversation Adder	\$0.0550	\$19,255,443	\$32,192,573	\$12,937,131	1.67
Total Resource Cost Test (TRC) No Adder	\$0.0550	\$19,255,443	\$29,564,814	\$10,309,372	1.54
Utility Cost Test (UCT)	\$0.0302	\$10,586,475	\$26,277,589	\$15,691,115	2.48
Rate Impact Test (RIM)		\$41,360,158	\$26,277,589	-\$15,082,569	0.64
Participant Cost Test (PCT)		\$14,334,817	\$39,726,757	\$25,391,941	2.77
Lifecycle Revenue Impacts (\$/kWh)					\$0.000287473

Table 21 - Total Portfolio Cost-Effectiveness Results (Including NEEA)

Cost-Effectiveness Test	Levelized \$/kWh	Costs	Benefits	Net Benefits	Benefit/Cost Ratio
Total Resource Cost Test (PTRC) + Conversation Adder	\$0.0542	\$20,166,926	\$30,317,317	\$10,150,391	1.50
Total Resource Cost Test (TRC) No Adder	\$0.0542	\$20,166,926	\$27,561,197	\$7,394,272	1.37
Utility Cost Test (UCT)	\$0.0309	\$11,497,958	\$27,561,197	\$16,063,240	2.40
Rate Impact Test (RIM)		\$44,385,145	\$27,561,197	-\$16,823,947	0.62
Participant Cost Test (PCT)		\$14,334,817	\$38,553,036	\$24,218,219	2.69
Lifecycle Revenue Impacts (\$/kWh)					\$0.000320663

Table 22 - Total Portfolio Cost-Effectiveness Results (Including NEBs and NEEA)

Cost-Effectiveness Test	Levelized \$/kWh	Costs	Benefits	Net Benefits	Benefit/Cost Ratio
Total Resource Cost Test (PTRC) + Conversation Adder	\$0.0542	\$20,166,926	\$33,604,542	\$13,437,616	1.67
Total Resource Cost Test (TRC) No Adder	\$0.0542	\$20,166,926	\$30,848,422	\$10,681,497	1.53
Utility Cost Test (UCT)	\$0.0309	\$11,497,958	\$27,561,197	\$16,063,240	2.40
Rate Impact Test (RIM)		\$44,385,145	\$27,561,197	-\$16,823,947	0.62
Participant Cost Test (PCT)		\$14,334,817	\$41,840,261	\$27,505,444	2.92
Lifecycle Revenue Impacts (\$/kWh)					\$0.000320663

Program Tariffs

**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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By: Andrea Kelly Andrea L. Kelly

Title: Vice President, Regulation

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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By: Andrea Kelly Andrea L. Kelly

Title: Vice President, Regulation

PACIFIC POWER & LIGHT COMPANY

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First Revision of Sheet No. 114.1
Canceling 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 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 fourplexes 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:  R. Bryce Dalley

Title: Vice President, Regulation

PACIFIC POWER & LIGHT COMPANY

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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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By: William R. Griffith William R. Griffith

Title: Vice President, Regulation

**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: 45 years.
- (2) Floor insulation over unheated spaces up to R-30: 45 years.
- (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): 45 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: 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: 20 years.
- (4) Weather stripping and/or caulking, including blower door assisted air sealing and duct sealing: Always considered cost effective.
- (5) Thermal doors: 30 years.

(continued)

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By:  R. Bryce Dalley

Title: Vice President, Regulation

**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. Replacement will be a model with an EF rating as follows: <= 55 gallon capacity = 0.94 or greater, > 55 gallon capacity = 2.2 EF or greater. Heat pump water heaters meeting Northwest Energy Efficiency Alliance Northern Climate Specifications replacing an existing electric water heater: 15 years.
- (10) Light emitting diode (LED) and/or fluorescent light fixtures applicable in all homes: 15 years.
- (11) Compact fluorescent light and/or light emitting diode (LED) bulbs applicable in all homes. Energy Star certified bulbs 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 may be replaced with a model with an estimated annual consumption of 600 kWh or less when a SIR of 1.0 or greater is indicated. Replaced refrigerators must be removed and recycled in accordance with EPA guidelines: Always considered cost effective: 15 years.
- (13) Ductless heat pumps may be installed to replace permanently installed electric heat: 15 years.
- (14) Replacement windows with a U-value of 0.30 or less: 45 years.

(continued)

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Title: Vice President, Regulation

PACIFIC POWER & LIGHT COMPANY

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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:

- (1) A Department of Energy approved Energy Audit must be completed or an approved priority list used 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.
- (3) Measures installed under this schedule shall not receive financial incentives from other Company 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.
- (6) Company shall pay the Agency the amount established under the terms of their contract when 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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By: William R. Griffith William R. Griffith

Title: Vice President, Regulation

**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:

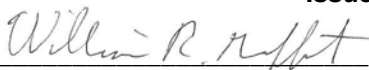
- (1) Qualifying equipment or services, incentive amounts, and other terms and conditions will be listed on the Washington energy efficiency program section of the Company website and may be changed by the Company with at least 45 days notice. Such changes will be prominently displayed on the Washington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

(continued)

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By:  William R. Griffith

Title: Vice President, Regulation

Schedule 140
NON-RESIDENTIAL ENERGY EFFICIENCY

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 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.

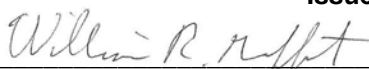
ELECTRIC SERVICE REGULATIONS:

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.

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