Demand-side Management

2014-2015 Business Plan - Washington

Revision 3 - November 1, 2014





Table of Contents

[Executive Summary 2](#_Toc401648725)

[2014-2015 Budget and Savings by Program 3](#_Toc401648726)

[Residential Program Details 10](#_Toc401648730)

[Refrigerator Recycling (Schedule 107) 10](#_Toc401648731)

[Home Energy Savings (Schedule 118) 13](#_Toc401648732)

[Home Energy Reports 24](#_Toc401648733)

[Low Income Residential Program Details 26](#_Toc401648734)

[Low Income Weatherization (Schedule 114) 26](#_Toc401648735)

[Non-Residential Program Details 32](#_Toc401648736)

[*watt*smart Business (Schedule 140) 32](#_Toc401648737)

[Other Programs & Initiatives 64](#_Toc401648738)

[Energy Education in Schools 64](#_Toc401648739)

[Northwest Energy Efficiency Alliance 66](#_Toc401648740)

[Production Efficiency 68](#_Toc401648741)

[Customer Outreach and Communications 70](#_Toc401648742)

[Cost Effectiveness 72](#_Toc401648743)

[Cost Effectiveness Discussion for Revision 3 of the Business Plan 73](#_Toc401648744)

# Executive Summary

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

In compliance with the Commission’s direction (Order 01 of Docket UE-132047 Condition List Item 5) to include revised program details and program tariffs as part of the Company’s Biennial Conservation Plan, the Company filed the first revision to Demand-side Management 2014-2015 Business Plan (the “Business Plan”) on March 18, 2014 and a second revision on August 20, 2014 to extend and expand the Home Energy Report program.

Pursuant to the Commission’s direction to include revised program details and an annual budget by November 1, 2014, as required by Order 01 of Docket UE-132047 Condition List Item 8, dated December 19, 2013, the Company is providing this third revision to the Business Plan for 2014-2015.

The Company’s Business Plan update for 2014-2015 reflects updated savings projections and budgets by program or initiative for years 2014-2015. The updates reflect the Company’s current projections based on the best available information at the time of filing (October 31, 2014). The Company will add, delete and/or modify programs, measures, initiatives or specific projects described in this Business Plan going forward as appropriate and as circumstances warrant.

In compliance with this requirement the Company makes the following third revision to the 2014-2015 Business Plan. This revision reflects the following:

1. Updated savings projections and budgets by program for 2014 and 2015. Table 1 provides the Company’s current savings and cost projections based on year-to-date activity through September 2014, and forecasts based on the best available information for the remainder of 2014 and for the entirety of 2015.
2. Information (description, savings and costs) for the Company’s recent extension and expansion of the Home Energy Report program. While this information was provided in a letter to the Commission on August 20, 2014, this third revision incorporates the revised information in the overall Business Plan.

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

* Program, initiative and/or project descriptions
* Description of planned program changes
* Program evaluation update[[1]](#footnote-2)
* Program details including specific measures, incentives, and eligibility requirements

# 2014-2015 Budget and Savings by Program

Table 1 below provides the projected savings and expenditures by program, initiative, and sector to achieve the 74,703 MWh (including line losses) biennial conservation target (“BCT”) for 2014 and 2015 described in the Company’s 2014-2015 Biennial Conservation Plan, dated November 1, 2013 and approved by Washington Utilities and Transportation Commission on December 19, 2013. The “Total Pacific Power Conservation” row, which excludes costs and savings associated with Northwest Energy Efficiency Alliance (NEEA) initiatives, is directly comparable to the BCT noted above. As shown, the Company is projecting 93,102, MWh in savings over the biennial period, roughly twenty five percent more than the BCT target.

**Table 1**

**2014 - 2015 Biennial Target Savings and Budget Projections by Program**



**Notes:**

1. Low income forecasts for 2014 and 2015 are based on forecasts from the community action agencies. The per-home savings are from the 2009-2011 program evaluation and are lower than those used in the 2012-2013 biennial period. The Company maintains $1 million annually available for matching commitments.
2. Refrigeration recycling unit energy savings by appliance type (refrigerators and freezers) have been adjusted for the 2014-2015 reporting period based on new information from the program’s 2011-2012 Washington impact evaluation using RTF methodology (as modified in December 2012). Updated unit savings values are lower than those used in the 2013 Conservation Potential Assessment and for savings reporting in the 2012-2013 biennium, both of which came from the 2009-2010 program evaluation. The adjustment is further explained in “Appendix 4, Additional Detail – Forecast Adjustments” to the Company’s Biennial Conservation Plan.
3. The forecast for Home Energy Savings includes the impacts of adjustments for updated cost and savings information for certain appliances, lighting, building shell and HVAC measures. Updated information becomes available as the RTF updates deemed measures, Pacific Power program evaluations are completed and changes to the Washington State Energy Code (WSEC) take effect. Updates are further explained in “Appendix 4, Additional Detail – Forecast Adjustments” to the Company’s Biennial Conservation Plan.

1. Forecasted savings for the extended and expanded Home Energy Reports program are reduced by the amount of savings estimated to be attributable to capital measures counted in other Company programs.
2. Expenditures on production efficiency will be recovered through a general rate case rather than through the System Benefit Charge, as specified in section 11(d) of Order 01 in docket UE-132047.

1. Includes both Pacific Power’s direct funding of NEEA and the Company’s internal management costs. NEEA 2014 and 2015 expenditures are based on Pacific Power’s percent of regional savings applied to NEEA’s 2014 budget (presented at the October 2013 Regional Portfolio Advisory Committee meeting) and NEEA’s 2015 budget (from the draft 2015-2019 Business Plan), respectively. Forecasted savings were provided by NEEA on October 14, 2013 utilizing technical assumptions as of August 27, 2013. See Appendix 9 to the Biennial Conservation Plan for more detail on NEEA’s forecast and savings calculation methodology and Pacific Power’s regional savings share. See the Biennial (2014-2015) Conservation Target section of the Biennial Conservation Plan for Pacific Power treatment of NEEA savings consistent with the order received in docket UE-100170.

1. For detail on the planned evaluations, see the program detail sections in this Business Plan.
2. Potential study update and analysis costs represent an estimate of the costs necessary to prepare for the 2016-2025 ten-year conservation forecast and 2016-2017 biennial 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.
3. Technical Reference Library (TRL) costs are the costs necessary for on-going maintenance and updates to the system. Per Pacific Power’s EM&V framework, these costs are not included in program- or portfolio-level cost-effectiveness analysis.
4. Residual administration related to prior program expense represents the ongoing management of conservation loans associated with legacy programs i.e. Energy FinAnswer, Home Comfort, etc.
5. Excludes costs and savings associated with NEEA initiatives. Savings in this row are directly comparable to the Company’s Biennial Conservation Target.
6. Excludes costs and savings associated with production efficiency, as those costs will be recovered through a general rate case, rather than the SBC, as specified in section 11(d) of Order 01 in docket UE-111880.

**Table 2**

**March 2014 Business Plan Savings Forecast compared to Current Forecast**

# 

## Notable DSM Business Plan Savings Changes

Highlights of notable change from the savings projections included in the Business Plan filed on March 18, 2014 include:

* Low Income Weatherization – the number of treated homes are expected to be lower than the original forecast even though expenditures are not significantly revised. This is driven by the partnering weatherization agencies depleting their matching funds. The Company has provisions to fund 100% (vs. 50%) of approved energy efficiency measures when the agency’s matching funds are exhausted. The Company will incur a greater expenditure per home and this will result in fewer homes completed in 2015 than originally anticipated. Two of the three partnering agencies believe they will reach their annual funding cap in 2015. Match Maker program funds will be allocated to the agencies again in July 2015 which they will then be able to leverage with Company funds.
* Refrigerator Recycling – revised forecast based on 2014 year to date activity, program updates to expand program to business customers, and program implementation contractor re-forecast for 2015.
* Home Energy Savings – savings are higher than originally forecast driven primarily strong customer uptake of lighting measures, ***watt***smart Starter Kits, and the duct sealing offer for manufactured and multi-family homes.
* Home Energy Reports – increased savings reflect the 2014 expansion of the program to a second treatment group of 35,000 households.
* ***watt***smart Business – higher savings from increased customer uptake of the energy management offer added in January 2014 as well as increased mid-market customer project completions driven by targeted outreach. Estimated savings from small business lighting offer is also contributing to higher forecast for the biennial period.
* Production efficiency – small changes in savings reflect a) current estimates for the Hermiston plant HVAC and compressed air projects scheduled for completion in 2014, and b) deferral of the lighting project at the Jim Bridger plant based on joint owner’s intention to defer the project until an upgrade to LED lights passes the plant cost effectiveness test.

**Table 3**

**March 2014 Business Plan Expenditure Forecast compared to Current Forecast**



## Notable DSM Business Plan Budget Changes

Highlights of notable change from the budget projections included in the Business Plan filed on March 18, 2014 include:

* Home Energy Savings – added program delivery costs associated with added savings from starter kits, and customer participation in the duct sealing offers.
* Home Energy Reports – increased third party delivery contractor costs for expanding the treatment group
* wattsmart Business –increased expenditures tied to increased savings from energy management projects, mid-market activities and forecasted customer participation in the small business lighting offer.
* Production Efficiency – updated cost forecasts for projects scheduled for completion in this biennial period.
* Program evaluations- original estimate based on evaluation estimates. The revised forecast is based on contract pricing for low income and business program evaluation currently underway and forecast of expenses expected for evaluations scheduled to be underway between now and the end of 2015.
* Measure data documentation – re-forecast based on actual expenses to maintain Technical Reference Library (TRL) for current programs and to implement data base changes to align with approved program changes including small business lighting offer and refrigerator recycling. Expenditures for implementing the consolidated tracking system, DSM Central, are also included in this category and are primarily responsible for the variance.
* Administration of prior programs – no charges have been incurred in 2014 and indications are none are likely for the balance of the biennial period. The biennial estimate was set to zero and the Company will consider removing this line item from the next (2016-2017) Business Plan.
* During preparation of this update, the Company identified an addition error the 2015 portfolio expenses in the November 1, 2013 business plan. As a result, the Total Portfolio-Level Expenses were understated by $60,000. The 2015 total was listed as $659,700. The total should have been $719,700. The total (2014-2015) portfolio expenses were listed as $1,691,400. They should have been listed as $1,751,400. Variance reporting is from the correct amount.

# Residential Program Details

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

## Refrigerator Recycling (Schedule 107)

Years of Implementation

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

Program Description

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

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

Program Updates

Deemed values for refrigerator, freezer and kit savings have been updated for the 2014 and 2015 period based on the latest Regional Technical Forum (“RTF”) methodology and draft 2011-2012 impact evaluation results. Per unit refrigerator savings changed from 724 kWh to 583 kWh. Freezer savings also were lowered from 542 kWh to 495 kWh. Savings from kits, which include two 13W CFLs, were updated to 28 kWh (per kit) utilizing an EISA compliant wattage for the 60 watt incandescent baseline lamp(s). These values are lower than those reported in the 2012-2013 biennial period.

The program was expanded in April 2014 to include all customer classes, which now allows pick-ups from commercial and industrial customers with qualifying residential refrigerators to participate in the program. Energy efficiency kits will not be provided to the commercial and industrial customers.

Planned Program Changes

The Company is evaluating a program change to pick up qualifying appliances from selected retailers operating in the Pacific Power territory to further increase the reach of the program. In addition, the Company will review evaluations findings and monitor appliance recycling cost-effectiveness to determine if there are revisions that will improve participation or program results.

Evaluation Update

***Last Evaluation Report:***

|  |  |  |
| --- | --- | --- |
| **Program Years** | **Evaluation Report Date** | **Completed by** |
| 2011-2012 | October 23, 2013 | The Cadmus Group |

***Future Evaluation Report(s):***

|  |  |  |
| --- | --- | --- |
| **Program Years** | **Evaluation Report Date** | **To be Completed by** |
| 2013-2014 | By Year-end 2015 | To be determined |

Program Details

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

**PACIFIC POWER & LIGHT COMPANY**

WN U-75

First Revision to Sheet No. 107.1

Canceling Original Sheet No. 107.1

**Schedule 107**

**REFRIGERATOR RECYCLING PROGRAM**

**SERVICE OPTIONAL FOR QUALIFYING CUSTOMERS**

PURPOSE:

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

AVAILABLE:

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

APPLICABLE:

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

CUSTOMER PARTICIPATION:

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

DESCRIPTION:

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

QUALIFYING EQUIPMENT:

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

PROVISIONS OF SERVICE:

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

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

RULES AND REGULATIONS:

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

**Issued:** March 4, 2014 **Effective:** April 1, 2014

**Advice No.** 14-02

**Issued By Pacific Power & Light Company**



By: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ R. Bryce Dalley **Title:** Vice President, Regulation

## Home Energy Savings (Schedule 118)

Years of Implementation

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

Program Description

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

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

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

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

Program Updates

Program changes effective January 1, 2014 were made to improve participation, comply with code and standard changes, align incentives with revised measure costs and savings estimates, add delivery channels such as mail-by request kits and direct install, and improve cost effectiveness. As part of the changes, additional measures were added to the program and measures impacted by changing codes were retired.

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** | **Evaluation Report Date** | **Completed by** |
| 2011-2012 | January 20, 2014 | The Cadmus Group |

***Future Evaluation Report(s):***

|  |  |  |
| --- | --- | --- |
| **Program Years** | **Evaluation Report Date** | **To be Completed by** |
| 2013-2014 | By Year-end 2015 | To be determined |

Program Details

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

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

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

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

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

**Washington Home Energy Savings**

**Definitions**

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

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

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

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

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

**Direct Install:** Installation of an Energy Efficiency Measure directly by the Company, Program, or a Program-approved contractor or other 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 pursuant to an approved Energy Efficiency Incentive Application.

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

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

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

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

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

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

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

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

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

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

**New Home:** A newly constructed residence.

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

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

**RTF:** Regional Technical Forum

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

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

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

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

**U-Factor:** Measures the rate of heat transfer and indicates how well the window insulates. U-factor values generally range from 0.25 to 1.25 and are measured in Btu/h·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.

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

**Incentives**

**Home Energy Savings Incentive Table**

| Measure | Qualifications | Customer Incentive | Mid-Market Incentive |
| --- | --- | --- | --- |
| Clothes Washers | MEF ≥ 3.2 | $50 | $0 |
| Clothes Washer Recycling | Decommission and recycle an existing clothes washer. The recycled unit must be operable. | $0 | Up to $25 |
| Refrigerators | CEE Tier 2 and above | $35 | $0 |
| Electric Water Heaters | 25-44.9 gal units: EF > 0.94  45-54.9 gal units: EF > 0.95  55-74.9 gal units: EF > 0.93  75-99.9 gal units: EF > 0.92  100-120 gal units: EF > 0.85  Due to April 16, 2015 federal standard incentives will be provided only for units purchased or installed on or before April 15, 2015. | $50 | $0 |
| Evaporative Coolers (Tier 1) | 2,000-3,499 CFM | $50 | $0 |
| Evaporative Coolers (Tier 2) | Minimum 3,500 CFM  (must be the primary cooling source) | $250 | $0 |
| Room Air Conditioner | ENERGY STAR qualified | $0 | Up to $20 |
| Freezer | ENERGY STAR qualified | $20 | $0 |
| Heat Pump Water Heater | Northern Climate Specification qualified  Due to April 16, 2015 federal standard units that do not meet the new standard will no longer be offered incentives after April 15, 2015. | Up to $600 | $200 |
| CFL Bulbs  (General Purpose) | ENERGY STAR qualified | $0 | Up to $1.50 |
| CFL Bulbs  (Specialty) | ENERGY STAR qualified | $0 | Up to $3.00 |
| LED Bulbs  (General Purpose) | ENERGY STAR qualified | $0 | Up to $10.00 |
| LED Bulbs  (Specialty) | ENERGY STAR qualified | $0 | Up to $10.00 |
| CFL and LED  Fixtures | ENERGY STAR qualified. Torchiere and portable products are not qualified | Up to $10.00 | |
| Central Air Conditioner | > 15 SEER | $50 | $50 |
| Central Air Conditioner Best Practice Installation and Sizing | > 13 SEER  Meet airflow/refrigerant requirements 350 CFM/ton of airflow  Refrigerant charge within +/- 3 degrees of target subcooling.  Equipment properly sized per program requirements | $50 | $75 |
| Heat Pump  Performance Tested Comfort Systems, Commissioning Controls Sizing | Complete RTF prescriptive checklist | $200 | $200 |
| Duct Sealing and Insulation | Rexisting < 2 or replace all existing insulation with at least R-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 | Must have ducted electric heating or cooling system serving at least 80% of the home’s floor area. Existing insulation should only be removed if it is being replaced. | $100 for electrically cooled homes  $300 for electrically heated homes | $0 |
| Ductless Heat Pump | > 10 HSPF, single-head or multi-head unit | $1,000 | $300 |
| Heat Pump Upgrade | For upgrade of existing heat pump to new high efficiency heat pump. > 9.5 HSPF | $150 | $100 |
| Heat Pump Conversion | For replacement of existing electric resistance heat or electric furnace with new high efficiency heat pump.  > 9.5 HSPF | $1,250 | $500 |
| Insulation - Attic | Rinitial ≤ 19  Rfinal ≥ 49 | $0.10/sf. for electrically cooled home    $0.35/sf. for electrically heated home | $0/sf. |
| Insulation - Floor | Rinitial ≤ 11  Rfinal ≥ 30  Home’s primary heat source must be electric | $0.30/sf. | $0/sf. |
| Insulation - Wall | Wall cavity lack effective insulation  Must add R-11 or fill cavity  Home’s primary heat source must be electric | $0.40/sf. | $0/sf. |
| Air Sealing | Air seal entire home per program requirements | $0.15/sf | $0/sf |
| Windows | Tier 1: U-factor of 0.30 or lower. Electrically heated home only.  Tier 2: U-factor of 0.22 or lower. | Tier 1:  • $0.25/sf. for electrically heated homes only  Tier 2:  • $0.50/sf. for electrically cooled home  •$1.50/sf. for electrically heated home | $0/sf. |
| Whole-Home Upgrade Package | Install all of the following per Program requirements:  • Heat Pump or Ductless Heat Pump  • Whole-Home Attic Insulation  • Whole-Home Wall Insulation  • Duct Sealing & Insulation if main heat or cooling source is ducted   • Air Sealing | $1,000 bonus | $0 |
| New Homes Whole Home Performance Path | To align with regional New Homes offerings, the Program will offer incentives to builders based on the new homes’ percentage improvement beyond code, beginning at 15% better than code and increasing. The home’s performance will be modeled and verified by independent third-parties and the models will be delivered to the program for final savings and incentives calculations. See program website details. | Up to $5,000 | $0 |
| New Homes Refrigerators | CEE Tier 2 and above | $35 | $0 |
| New Homes Heat Pump Water Heater | Northern Climate Specification Qualified  Due to April 16, 2015 federal standard units that do not meet the new standard will no longer be offered incentives after April 15, 2015. | Up to $800 | $0 |
| New Homes Central Air Conditioner | > 18 SEER | $100 | $0 |
| New Homes Heat Pump | > 9.5 HSPF | $250 | $0 |
| New Homes Windows | Install windows with a  U-Factor < 0.22  Home must have electric heat pump. | $1.00/sf. | $0 |
| New Homes Ductless Heat Pump | > 10 HSPF, single-head or multi-head unit | $1,300 | $0 |
| Low-Flow  Showerheads | Flow rate < 2.00 GPM | $0 | Up to $15.00 |
| Low-Flow  Aerators | Flow rate < 1.50 GPM | $0 | Up to $5.00 |
| Manufactured Homes, Duct Sealing | Must have ducted electric heating system serving at least 80% of the home’s floor area. Existing insulation should only be removed if it is being replaced. | $0 | Up to $500 |
| Manufactured Homes, Air Sealing | Air seal entire home per program requirements | $0.30/sf | $0/sf |
| New Manufactured Homes, High Performance | Home must receive High Performance certification. | $0 | $2,000 |
| New Manufactured Homes, ENERGY STAR | Home must receive ENERGY STAR certification. | $0 | $1,000 |
| New Manufactured Homes, Eco-rated Homes | Home must receive Eco-rated certification. | $0 | $1,250 |

**Notes for lighting incentives:**

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

**Notes for HVAC incentives:**

* See additional installation requirements on program website.

**Notes for weatherization incentives:**

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

**Notes for new homes incentives:**

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

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

* Mid-market incentives for low-flow showerheads and low-flow aerators apply to upstream, mail by request and direct install.
* See additional installation requirements on program website.
* Manufactured Homes, Duct Sealing - Contractor will be reimbursed for actual job costs, at no cost to the customer. Costs may include surcharge for mileage, duct testing and other job expenses.
* Acronyms:

GPM: Gallons per minute

**PACIFIC POWER & LIGHT COMPANY**

WN U-75

Original Sheet No. 118.1

**Schedule 118**

**HOME ENERGY SAVINGS INCENTIVE PROGRAM**

PURPOSE:

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

APPLICABLE:

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

CUSTOMER PARTICIPATION:

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

DESCRIPTION:

On-going programto 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)

**Issued:** May 13, 2011 **Effective:** June 13, 2011

**Advice No.** 11-01

**Issued By Pacific Power & Light Company**



By: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Andrea L. Kelly **Title:** Vice President, Regulation

**PACIFIC POWER & LIGHT COMPANY**

WN U-75

Original Sheet No. 118.2

**Schedule 118**

**HOME ENERGY SAVINGS INCENTIVE PROGRAM**

PROVISIONS OF SERVICE**:** (continued)

1. 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.

**Issued:** May 13, 2011 **Effective:** June 13, 2011

**Advice No.** 11-01

**Issued By Pacific Power & Light Company**



By: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Andrea L. Kelly **Title:** Vice President, Regulation

## Home Energy Reports

Years of Implementation

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

Program Description

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

Evaluation Results

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

Evaluation Update

***Last Evaluation Report:***

|  |  |  |
| --- | --- | --- |
| **Program Years** | **Evaluation Report Date** | **Completed by** |
| 8/1/2012 – 1/31/2014 | June 18, 2014 | Navigant Consulting |

***Future Evaluation Report(s):***

|  |  |  |
| --- | --- | --- |
| **Program Years** | **Evaluation Report Date** | **To be Completed by** |
| 2/1/2014 – 7/31/2015 | By Year-end 2015 | Navigant Consulting |

Program Details

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

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

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

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

Planned Program Changes

With the October 2014 expansion to an additional 35,000 customers, no further program changes are planned at this time. The content of the bi-monthly home energy reports is refreshed with updated energy efficiency tips and ideas to maintain customer interest and participation.

# Low Income Residential Program Details

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

## Low Income Weatherization (Schedule 114)

Years of Implementation

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

Program Description

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

Planned Program Changes

No program changes are planned at this time, but the Company will review evaluation findings with the partnering agencies to determine if there are revisions that will improve the services provided and program results. In addition, agency staff is reporting that their MatchMaker funding is depleting and they will be billing the Company 100 percent (instead of the typical 50 percent) for a portion of 2014 and the first six months of 2015.

Evaluation Update

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

***Last Evaluation Report:***

|  |  |  |
| --- | --- | --- |
| **Program Years** | **Evaluation Report Date** | **Completed by** |
| March 2009 – February 2011 | September 7, 2012 | The Cadmus Group |

***Future Evaluation Report(s):***

|  |  |  |
| --- | --- | --- |
| **Program Years** | **Evaluation Report Date** | **To be Completed by** |
| 2011 - 2012 | By year end 2014 | Smith & Lehmann Consulting |

Program Details

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

**PACIFIC POWER & LIGHT COMPANY**

WN U-75

Original Sheet No. 114.1

**Schedule 114**

**RESIDENTIAL ENERGY EFFICIENCY RIDER – OPTIONAL FOR QUALIFYING**

**LOW INCOME CUSTOMERS**

PURPOSE:

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

APPLICABLE:

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

DESCRIPTION:

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

DEFINITIONS:

(1) "Dwelling" means real or personal property within the state inhabited as the principal residence of a dwelling owner or a tenant. "Dwelling" includes a manufactured home, a single-family home, duplex or multi-unit residential housing. "Dwelling" does not include a recreational vehicle.

(a) Duplexes and four-plexes are eligible if at least one half of the dwelling is occupied by low income tenants.

(b) Triplexes and multi-family dwellings are eligible if at least 66% of the units are occupied by low income tenants.

(2) "Agency" means a non-profit group, Municipality or County authorized to receive funds for installation of weatherization materials in low income properties.

(3) "Energy Audit" means a service provided by the Agency that includes the measurement and analysis of the energy efficiency of a dwelling including energy savings potential that would result from installing energy efficient measures that are determined to be cost effective.

(4) “Low Income” means households qualifying under the federal low income guidelines and certified for eligibility according to agency procedure.

(5) “Major Measures” means ceiling insulation, wall insulation and floor insulation applicable in dwellings with permanently installed electric space heating systems. If physical barriers exist that prohibit the installation of a measure, then the measure is not required as a condition for financial assistance under this schedule.

(continued)

**Issued:** May 13, 2011 **Effective:** June 13, 2011

**Advice No.** 11-01

**Issued By Pacific Power & Light Company**



By: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Andrea L. Kelly **Title:** Vice President, Regulation

**PACIFIC POWER & LIGHT COMPANY**

WN U-75

First Revision to Sheet No. 114.2

Canceling Original Sheet No. 114.2

**Schedule 114**

**RESIDENTIAL ENERGY EFFICIENCY RIDER – OPTIONAL FOR QUALIFYING**

**LOW INCOME CUSTOMERS**

DEFINITIONS: (Continued)

(6) “Supplemental Measures” are not required measures under this schedule, but may qualify for a Company reimbursement based on audit results or a U.S. Department of Energy approved priority list.

(7) The “Energy Matchmaker Program” in the State of Washington is designed to increase resources for low-income weatherization by leveraging local matching dollars. A community based agency can access the Energy Matchmaker funds by providing a dollar-for-dollar match. Anticipated match providers include utilities, local governments, service organizations and rental housing owners. All measures installed under the Pacific Power Program must also be eligible under the Energy Matchmaker Program.

FINANCIAL ASSISTANCE:

(1) The Company will reimburse the "Agency" 50% of the installed cost of all eligible Energy Efficient Measures listed in this tariff. If Matchmaker Program participating Agencies exhaust Matchmaker Funds, Company will fund “Agency” 100% of costs associated with the installation of eligible Energy Efficient Measures. Measures will be determined to be cost effective (Savings to Investment Ratio of 1.0 or greater) through the results of an U.S. Department of Energy (DOE) approved audit or priority list. Financial assistance will be provided one time only on any individual major or supplemental measure, and up to two times per dwelling.

(2) The Company will reimburse the "Agency" for administrative costs when all major measures determined to be cost effective have been installed. The administrative reimbursement will be calculated as: 15% of the Pacific Power rebate.

(3) The Company will reimburse the “Agency” 50% of the installed cost of repairs necessary to make the installation of the energy efficient measures included in this effective tariff. When matching funds are exhausted funding will be at 100%. The total reimbursement on repairs available to the “Agency” is limited to 15% of the annual reimbursement on energy efficient measures received.

(4) Agencies must notify Company when matching funds are depleted, no less than 30 days prior to billing at 100% funding levels.

1. Total funding for all program components will not exceed $1,000,000 per calendar year.
2. Agencies must invoice the Company within ninety days of job completion.

(continued)

**Issued:** May 3, 2013 **Effective:** July 1, 2013

**Docket No.** 13-05

**Issued By Pacific Power & Light Company**

****



By: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ William R. Griffith **Title:** Vice President, Regulation

**PACIFIC POWER & LIGHT COMPANY**

WN U-75

First Revision to Sheet No. 114.3

Canceling Original Sheet No. 114.3

**Schedule 114**

**RESIDENTIAL ENERGY EFFICIENCY RIDER – OPTIONAL FOR QUALIFYING**

**LOW INCOME CUSTOMERS**

ENERGY EFFICIENT MEASURES:

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

Major Measures:

(1) Ceiling insulation up to R-49 for ceilings with less than R-30 in place. R-30 or better attics will not be further insulated: 30 years.

1. Floor insulation over unheated spaces up to R-30: 30 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): 30 years.

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

Supplemental Measures:

1. Attic ventilation, excluding power ventilators when installed with ceiling insulation (required if needed at the time ceiling insulation is installed). Whole house mechanical ventilation, and spot ventilation for kitchen and baths at time ceiling insulation is installed: Always considered cost effective.

(2) Ground cover and water pipe wrap when installed with floor insulation; other vapor barrier materials as required when installed with floor or ceiling insulation: Always considered cost effective.

(3) Forced air electric space heating duct insulation and sealing in unheated spaces: 30 years.

1. Weather stripping and/or caulking, including blower door assisted air sealing and duct sealing: Always considered cost effective.

(5) Thermal doors: 30 years.

(continued)

**Issued:** May 3, 2013 **Effective:** July 1, 2013

**Docket No.** 13-05

**Issued By Pacific Power & Light Company**



By:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_William R. Griffith **Title:** Vice President, Regulation

**PACIFIC POWER & LIGHT COMPANY**

WN U-75

First Revision to Sheet No. 114.4

Canceling Original Sheet No. 114.4

**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.

1. 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.
2. Water heaters: Tank replacement of existing electric water heaters when audit indicates a Savings to Investment Ratio of 1.0 or greater. Replacement will be an Energy Star certified model with an EF rating as follows: 40-49 gallon capacity = 0.94 or greater, 50-65 gallon   
   capacity = 0.95 or greater, 66+ gallon capacity = 0.93 or greater. 13 years.
3. Fluorescent light fixtures applicable in all homes: 15 years.
4. Compact fluorescent light bulbs applicable in all homes - limit 10 Energy Star certified bulbs per home placed in fixtures that are on 2 or more hours per day: Always considered cost effective, 7 years.

(12) Refrigerators applicable in all homes: Refrigerators with monitored results or listed in the Weatherization Assistance Program Technical Assistance Center database showing annual usage of 1,500 kWh or greater may be replaced with an Energy Star model with an estimated annual consumption of 600 kWh or less. Replaced refrigerators must be removed and recycled in accordance with EPA guidelines: Always considered cost effective, 15 years.

(13) Class 40 Replacement windows: 25 years.

(continued)

**Issued:** May 3, 2013 **Effective:** July 1, 2013

**Docket No.** 13-05

**Issued By Pacific Power & Light Company**



By: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ William R. Griffith **Title:** Vice President, Regulation

**PACIFIC POWER & LIGHT COMPANY**

WN U-75

First Revision of Sheet No. 114.5

Canceling Original Sheet No. 114.5

**Schedule 114**

**RESIDENTIAL ENERGY EFFICIENCY RIDER – OPTIONAL FOR QUALIFYING**

**LOW INCOME CUSTOMERS**

PROVISIONS OF SERVICE:

(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.

**Issued:** May 14, 2013 **Effective:** July 1, 2013

**Docket No.** 13-05

**Issued By Pacific Power & Light Company**



By: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ William R. Griffith **Title:** Vice President, Regulation

# Non-Residential Program Details

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

## *watt*smart Business (Schedule 140)

Years of Implementation

The ***watt***smart Business program (Schedule 140) was created in 2014 by the consolidation of two existing programs: Energy FinAnswer and FinAnswer Express. The Energy FinAnswer program was originally implemented in the 1990s as an energy efficiency improvement financing program. Customer loan payments were calculated to equal expected monthly savings from the energy efficiency improvements made until the loan was satisfied. The program was modified to an incentive based program under Schedule 125 in October 2000.[[2]](#footnote-3) The Small Retrofit Incentive and Retrofit Incentive (Schedules 115 and 116) were created in November 2000 and were improved and renamed FinAnswer Express (Schedule 115) in May 2004.

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

Program Description

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

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

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

Custom incentives and analysis are offered for commercial, industrial, and agricultural customer retrofits and new construction measures that meet minimum efficiency qualifications of the prescriptive incentives, but do not have a prescriptive incentive available. The program includes a vendor neutral investment grade energy analysis and cash incentives equal to $0.15 per kWh of annual energy savings (up to 70 percent of project costs).[[3]](#footnote-4) 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 customer’s commitment to an energy savings goal over a prescribed timeframe; typically 12 months. Participating customers set a verifiable energy savings goal and receive co-funding proportionate to that goal at $0.025/kWh (subject to a minimum co-funding level and salary cap). If the customer meets these verified energy savings goals on schedule, co-funding continues. If however, milestones are missed, co-funding would be suspended and/or ultimately ended and repayment of unearned co-funding would be required.

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

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

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

Planned Program Changes

Research is underway to inform the next program changes. A possible offer involving LED lighting distributors is under consideration. Future changes will be based on cost-effectiveness, participation and updated market information.

Evaluation Update

***FinAnswer Express***

***Last Evaluation Report:***

|  |  |  |
| --- | --- | --- |
| **Program Years** | **Evaluation Report Date** | **Completed by** |
| 2009-2011 | December 31, 2012 | Navigant Consulting, Inc. |

***Future Evaluation Report(s):***

|  |  |  |
| --- | --- | --- |
| **Program Years** | **Evaluation Report Date** | **To be Completed by** |
| 2012-2013 | By Year-end 2014 | Navigant Consulting, Inc. |

**Energy FinAnswer**

***Last Evaluation Report:***

|  |  |  |
| --- | --- | --- |
| **Program Years** | **Evaluation Report Date** | **Completed by** |
| 2009- 2011 | December 28, 2012 | Navigant Consulting, Inc. |

***Future Evaluation Report(s):***

|  |  |  |
| --- | --- | --- |
| **Program Years** | **Evaluation Report Date** | **To be Completed by** |
| 2012-2013 | By Year-end 2014 | Navigant Consulting Inc. |

***watt*smart Business**

***Future Evaluation Report(s):***

**Program Years Evaluation Report Date To be Completed by**

2014-2015 By year-end 2016 TBD

Program Details

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

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

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

The current information for the program can be found on the Company’s website at [www.be***watt***smart.com](http://www.bewattsmart.com).

**Washington *watt*smart Business**

**Definitions**

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

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

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

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

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

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

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

**Energy Efficiency Project:** One or more EEM(s) at a Non-residential Facility[[4]](#footnote-5) 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.

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

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

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

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

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

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

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

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

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

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

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

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

**Incentives – General Information**

**Incentives for measures listed in the incentive tables**

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

**Custom incentives**

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

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

**Energy management incentives**

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

**Energy project manager co-funding**

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

**Baseline adjustments**

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

1. Wattage of existing equipment, or
2. 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]](#footnote-6),[[6]](#footnote-7)**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Category** | | **Incentive** | **Percent Project Cost Cap[[7]](#footnote-8)** | **1-Year Simple Payback Cap for Projects[[8]](#footnote-9)** | **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 | 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 | | 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. |
| Custom Non-Lighting Incentives for qualifying measures not on the prescriptive list.[[9]](#footnote-10) | | $0.15 per annual kWh savings | 70% | Yes | N/A |
| Energy Management | | $0.02 per kWh annual savings | N/A | No | N/A |
| Energy Project Manager Co-Funding | | $0.025 per kWh annual savings | 100% of salary and eligible overhead | No | Minimum savings goal posted on Pacific Power website |

**Energy Project Manager Co-funding Incentives**

| **Payment No.** | **Payment Amount** | **Milestone** |
| --- | --- | --- |
| 1 - Initial payment | 1/3 of funding amount\* (not to exceed $25,000) | 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 | 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 Incentive Table**

|  |  |  |  |
| --- | --- | --- | --- |
| Measure | Category | Eligibility Requirements | Incentive |
| T8 Fluorescent | CEE T8 | 4’ CEE Qualified High Performance Lamp and CEE Qualified Ballast included on qualified list | $3/Lamp |
| 4’ CEE Qualified Reduced Wattage Lamp and CEE Qualified Ballast included on qualified list | $5/Lamp |
| Premium  Delamp | 4’ CEE Qualified Reduced Wattage or High Performance Lamp and CEE Qualified Ballast. Must remove one or more lamps. To delamp an existing fixture, the lamp and all corresponding sockets must be permanently disabled. | $21/Lamp Removed |
| Relamp | Lamp wattage reduction ≥ 3 Watts, No ballast retrofit | $1/Lamp |
| High Bay | Fixture with less than six (6) lamps:  4’ CEE Qualified High Performance Lamp.  Must replace T12HO/VHO, Incandescent or HID | $18/Lamp |
| Fixture with six (6) or more lamps:  4’ CEE Qualified High Performance Lamp.  Must replace T12HO/VHO, Incandescent or HID. | $12/Lamp |
| Continuous Operation | 4’ CEE Qualified Reduced Wattage or High Performance Lamp and CEE Qualified Ballast included on qualified list installed in a continuous operation application. | $20/Lamp |
| T5 Fluorescent | Standard | 4’ Nominal Lamp ≤ 28 Watts, Ballast Factor ≤ 1.0 | $5/Lamp |
| Relamp | Lamp wattage reduction ≥ 3 Watts, No ballast retrofit | $1/Lamp |
| High Bay | Fixture with less than six (6) lamps: 4’ T5HO Lamp.  Must replace T12HO/VHO, Incandescent or HID | $18/Lamp |
| Fixture with six (6) or more lamps: 4’ T5HO Lamp.  Must replace T12HO/VHO, Incandescent or HID. | $12/Lamp |
| Continuous Operation | 4’ Nominal High Output Lamp installed in a continuous operation application | $20/Lamp |
| Cold Cathode | Screw-in Lamp | All wattages | $5/Lamp |
| Compact Fluorescent Lamp (CFL) | Hardwired Fixture | All wattages | $5/Fixture |
| Ceramic Metal Halide (CMH) | CMH Fixture | All wattages | $35/Fixture |
| Pulse Start Metal Halide (PSMH) | PSMH Fixture | Wattages > 500W | $60/Fixture |
| Electronic Ballast | Must be used in place of or replace a magnetic ballast | $20/Ballast |
| Induction | Induction Fixture | All wattages, New fixtures only | $75/Fixture |
| LED | Integral Screw-in Lamp | LED must be listed on qualified equipment list | $10/Lamp |
| Recessed Downlight | LED must be listed on qualified equipment list | $10/Fixture |
| Other LED | LED must be listed on qualified equipment list | $0.15/kWh annual energy savings |
| Lighting | Custom | Not listed above | $0.15/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 T8 Premium Delamps may not be combined with other linear fluorescent lamp or fixture incentives. Complete fixture removals are not eligible.
4. Incentives for T8 and T5 Relamps may not be combined with other linear fluorescent lamp or fixture incentives and will only be paid once per facility.
5. Qualified equipment lists referenced in the table are posted on the Washington energy efficiency program section of Pacific Power’s website.

**BF** = Ballast Factor

**CEE** = Consortium for Energy Efficiency

**CFL** = Compact Fluorescent Lamp

**CMH** = Ceramic Metal Halide

**HID** = High Intensity Discharge (e.g. Mercury Vapor, High Pressure Sodium, Metal Halide)

**HO** = High Output

**LED** = Light-Emitting Diode

**PSMH** = Pulse-Start Metal Halide

**VHO** = Very High Output

**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% or more of the fixture in response to daylight. | $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 |
| Custom | Custom | Not listed above | $0.15/kWh annual energy savings |

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

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

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

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

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

**PIR** = Passive Infrared

**Dual Tech** = Sensors combining ultrasonic and passive infrared

**LED** - Light-emitting Diode

**New Construction/Major Renovation Lighting Incentive Table**

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

**Motor Incentives Table**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **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 ≤ 5,000 hp | -- | 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/hp is paid by the service center to the Customer as a credit on the motor rewind invoice. The balance is retained by the service center.  **GMPG** = Green Motors Practices Group  **HVAC** = Heating, Ventilating and Air Conditioning  **VFD** = Variable Frequency Drive | | | | |

**HVAC Equipment Incentive Table**

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | | | | | | **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 1 | | CEE Tier 2 | |
| All equipment sizes (three phase) | | Split system and single package | | -- |
| Unitary Commercial Air Conditioners, Water and 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 & 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 & 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 | | -- | |
| Heat Pumps, Ground-Source or Groundwater-Source (Heating & Cooling Mode) | | All sizes | | (See note 3) | | -- | ENERGY STAR Qualified | | -- | |
| VRF Air-Cooled Heat Pumps  (Cooling Mode) | | All Equipment Sizes | | Multisplit System or Multisplit System with Heat Recovery | |  |  | | CEE Tier 1 | |
| VRF Air-Cooled Heat Pumps  (Heating Mode) | | All Equipment Sizes | | Multisplit System or Multisplit System with Heat Recovery  (See note 3) | |  |  | | CEE Tier 1 | |
| VRF Water-Cooled Heat Pumps  (Cooling Mode) | | < 135,000 Btu/hr | | Multisplit System or Multisplit System with Heat Recovery | |  |  | | CEE Tier 1 | |
| VRF Water-Cooled Heat Pumps  (Heating Mode) | | < 135,000 Btu/hr | | Multisplit System or Multisplit System with Heat Recovery  (See note 3) | |  |  | | CEE Tier 1 | |
| Ground Source or Groundwater-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% of process cooling loads) | | Must exceed minimum efficiencies required by energy code | | | $0.15/kWh annual energy Savings (See Note 3) | |
| Room Air Conditioner | Residential (used in a business) | |  | | See Home Energy Savings program | | | See Note 4 | |
| 365/366 day Programmable or Occupancy-based Thermostat | All sizes in portable classrooms with mechanical cooling | | Must be installed in portable classroom unoccupied during summer months | | 365/366 day thermostatic or occupancy based setback capability | | | $150/thermostat | |
| Occupancy Based PTHP/PTAC control  (Retrofit only) | All sizes with no prior occupancy based control | | -- | | See Note 5 | | | $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 | |
| **Notes for other HVAC equipment and controls incentive table:**  1. Equipment that meets or exceeds the efficiency requirements listed for the equipment category in the above table may qualify for the listed incentive.  2. Incentives are paid at $0.15/kWh annual energy savings. IDEC energy savings subject to approval by Pacific Power.  3. Incentives are paid at $0.15/kWh annual energy savings. Chiller energy savings subject to approval by Pacific Power.  4. Refer to Pacific Power's Home Energy Savings Program for efficiency requirements and incentives for listed residential appliances used in a business.  5. Controller units must include an occupancy based control and include the capability to set back the zone temperature during extended unoccupied periods and set up the temperature once the zone is occupied.  **CFM** = Cubic Feet per Minute **IDEC** = Indirect Direct Evaporative Cooling **PTHP** = Packaged Terminal Heat Pump **PTAC** = Packaged Terminal Air Conditioner | | | | | | | | | |

|  |  |  |  |
| --- | --- | --- | --- |
| **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 |
| Roof/Attic Insulation | -- | Minimum increment of R-5 insulation above code (See Note 5) | $0.04/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.  5. Compliance with the minimum efficiency requirements of Roof/Attic Insulation measure may be demonstrated with equivalent U-factors and is subject to Pacific Power approval.  **NFRC** = National Fenestration Rating Council  **SHGC** = Solar Heat Gain Coefficient | | | |

|  |  |  |  |
| --- | --- | --- | --- |
| **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 ≥ 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 ≥ 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 |
| Residential Refrigerator | Used in a business | See Home Energy Savings program | See Note 2 |
| Residential Refrigerator/ Freezer Recycling | Used in a business | See residential refrigerator/ freezer recycling program | See Note 3 |
| Commercial Transparent Door Refrigerator | 0 < V < 15 | ENERGY STAR Qualified | $25 |
| 15 ≤ V < 30 | $50 |
| 30 ≤ V < 50 | $75 |
| 50 ≤ V | $125 |
| Chest Configuration | $50 |
| Commercial Transparent Door Freezer | 0 < V < 15 | ENERGY STAR Qualified | $25 |
| 15 ≤ V < 30 | $50 |
| 30 ≤ V < 50 | $75 |
| 50 ≤ V | $100 |
| Chest Configuration | $100 |
| LED Case Lighting  (Retrofit Only) |  | LED replacing fluorescent lamp in refrigerated cases. | $10/linear foot |
| Refrigerated Case Occupancy Sensor (Retrofit Only) |  | Installed in existing refrigerated case with LED lighting | $1/linear foot |
| Demand Controlled Kitchen Ventilation Exhaust Hood (Retrofit Only) | Must be installed on commercial kitchen exhaust system. | Variable speed motors must be controlled to vary fan speed depending upon kitchen demand, as indicated by connected sensors. | $0.15/kWh annual energy savings  (See note 4) |
| Anti-Sweat Heater Controls (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. Refer to Pacific Power's Home Energy Savings Program for efficiency requirements and incentives for listed residential appliances used in a business.  3. Refer to Pacific Power's residential refrigerator and freezer recycling program (See ya later, refrigerator®) for requirements and incentives for listed appliance recycling measures for residential appliances used in a business.  4. Incentives are paid at $0.15/kWh annual energy savings. Demand controlled kitchen ventilation exhaust hood energy savings subject to approval by Pacific Power.  **CEE** = Consortium for Energy Efficiency **ASTM** = American Society for Testing and Materials  **MDEC** = Maximum Daily Energy Consumption  **V** = Association of Home Appliance Manufacturers (AHAM) Volume in cubic feet | | | |

|  |  |  |  |
| --- | --- | --- | --- |
| **Appliances Incentive Table** | | | |
| **Equipment Type** | **Equipment Category** | **Minimum Efficiency Requirement** | **Customer Incentive** |
| High-Efficiency Clothes Washer | Residential  (used in a business) | See Home Energy Savings program | |
| Commercial (must have electric water heating) | ENERGY STAR® Qualified | $100 |
|  |  |
| Electric Water Heater | 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** | | Network PC Power Management Software | -- | 1. Installed software must automatically control the power settings of networked personal computers (PC) at the server level 2. The software must manage power consumption for each individual PC 3. The software must include the capability to report energy savings results  4. Incentives are for desktop computers only. Controlled laptop computers are not eligible for incentives. | $5 per controlled PC | | Smart Plug Strip | -- | 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 | | 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, multy-trajectory spray) replacing impact sprinkler | Impact sprinkler | New low pressure sprinkler (on-board nozzle is considered part of sprinkler, not a separate item with additional incentive) | New sprinkler is of same design flow or less | $3 each | | Low pressure sprinkler (e.g. rotating, wobbling, multi-trajectory spray) replacing worn low pressure sprinkler | Worn low pressure sprinkler (e.g. rotating, wobbling, multi-trajectory spray) | New low pressure sprinkler (on-board nozzle is considered part of sprinkler, not a separate item with additional incentive) | 1. New sprinkler is of same design flow or less. | $1.50 each | | Pressure regulator | Worn pressure regulator. May also add regulator where there had been none before. | New pressure regulator of same design pressure or less. | 1. New regulator must be of same design pressure or less | $3 each | | Gooseneck as part of conversion to low pressure system |  | New gooseneck as part of conversion to low pressure system | Gooseneck shall be used to convert existing center pivot with sprinkler equipment mounted on top of the pivot to low pressure sprinklers with regulators on new drop tubes. | $0.50 per outlet | | Drop tube (3 ft minimum length) | Leaking drop tube | New drop tube (3 ft minimum length) OR add new drop tube as part of conversion to low pressure system | Drop tube or hose extension shall extend below the pivot lower brace or shall be a minimum of 3 feet in length, whichever is greater. | $2 per drop tube | | New center pivot base boot gasket replacing leaking base boot gasket | Leaking center pivot base boot gasket | New center pivot base boot gasket | 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 | -- | The equipment must cool milk with well-water before it reaches the bulk cooling tank. | $0.15/kWh annual energy savings |
| Programmable Ventilation Controllers | -- | Controller must control ventilation fans based on temperature or other applicable factors such as humidity, odor concentration, etc... | $20/fan controlled |
| Variable Frequency Drives for Dairy Vacuum Pumps (Retrofit Only) | -- | VFD must vary motor speed based on target vacuum level. incentive available for retrofit only (i.e. new construction and replacement of existing VFD not eligible.). | $165/hp |
| Potato or Onion Storage Fan VFD |  | Add variable frequency drive to existing or new fan in potato or onion storage | $0.15/kWh annual energy savings |
| **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 ≤ 1psi when new and ≤ 3psi at element change 2. Particulate filtration is 100% at ≥ 3.0 microns and 99.98% at 0.1 to 3.0 microns, with ≤ 5 ppm liquid carryover 3. Filter is of deep-bed "mist eliminator" style, with element life ≥ 5 years  4. Rated capacity of filter is ≤ 500 scfm | 1. Compressor must be ≥ 25 hp and ≤ 75 hp  2. Compressor discharge pressure setpoint must be reduced by 2 psi or more after installation of low pressure drop filter. | $2/scfm |
| Receiver Capacity Addition | Limited or no receiver capacity (≤ 2 gallons per scfm of trim compressor capacity) | Total receiver capacity after addition must be > 2 gallons per scfm of trim compressor capacity | 1. Compressor system size ≤ 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 ≤ 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 | ≤ 75 hp VFD controlled oil-injected screw compressor operating in system with total compressor capacity ≤ 75 hp, not counting backup compressor capacity | 1. Total compressor capacity in upgraded system is ≤ 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 | ≤ 75 hp compressor where permanent ductwork between compressor air intake and outdoors | Ductwork must meet manufacturer's specifications, which may include: (a) ≤ 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 (Retrofit only)[[10]](#footnote-11)**   |  |  |  |  | | --- | --- | --- | --- | | **Measure** | **Category** | **Eligibility Requirements** | **Maximum**  **Incentive[[11]](#footnote-12)** | | T8 Fluorescent | Retrofit  (Lamp/Ballast) | 4’ CEE Qualified Reduced Wattage Lamp and CEE Qualified Ballast included on qualified ballast list | $140/Fixture | | Delamp | 4’ CEE Qualified Reduced Wattage or High Performance Lamp and CEE Qualified Ballast. Must remove one or more lamps. To delamp an existing fixture, the lamp and all corresponding sockets must be permanently disabled. | $120/Fixture | | T12 Conversion (Kit/Lamp/Ballast) | 8’ T12 to (2) 4’ CEE Qualified Reduced Wattage or High Performance T8 Lamps and CEE Qualified Ballast. | $150/Fixture | | Relamp | Lamp wattage reduction ≥ 3 Watts, No ballast retrofit | $15/Lamp Installed | | Replacement –  High Bay (Fixture/Lamp/Ballast) | Fixture with less than six (6) lamps: 4’ CEE Qualified High Performance Lamp. Must replace T12HO/VHO, Incandescent or HID | $300/Fixture | | Fixture with six (6) or more lamps: 4’ CEE Qualified High Performance Lamp. Must replace T12HO/VHO, Incandescent or HID | $350/Fixture | | T5 Fluorescent | Replacement – T5 Standard  (Fixture/Lamp/Ballast) | 4’ Nominal Lamp ≤ 28 Watts, Ballast Factor ≤ 1.0 | $250/Fixture | | 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 T12HO/VHO, Incandescent or HID | $375/Fixture | | Fixture with six (6) or more lamps: Must replace T12HO/VHO, Incandescent or HID | $450/Fixture | | LED | Replacement/Retrofit - Recessed Downlight  (Fixture or Kit) | Must replace existing incandescent or fluorescent,  LED must be listed on qualified equipment list | $150/Fixture | | Replacement - Exit Signs | Must replace incandescent or fluorescent | $100/Sign | | Lighting Control | Wall Occupancy Sensor Retrofit | PIR, Dual Tech | $100/Sensor | | Ceiling Occupancy Sensor Retrofit | PIR, Dual Tech | $220/Sensor |   **Notes for enhanced incentives for small business customers:**   1. To be eligible for the incentives listed, the new lighting system must use less energy than the existing lighting system replaced or the baseline lighting system as determined by the Company. 2. Incentives are capped at 80 percent of Energy Efficiency Project Costs. Energy Efficiency Project Costs are subject to Pacific Power approval. 3. Incentives for T8 Fluorescent Premium Delamps may not be combined with other linear fluorescent lamp or fixture incentives. Complete fixture removals are not eligible. 4. Incentives for T8 and T5 Fluorescent Relamps may not be combined with other linear fluorescent lamp or fixture incentives and will only be paid once per facility. 5. Qualified equipment lists referenced in the above table are posted on the Washington energy efficiency program section of Pacific Power’s website.   **BF** = Ballast Factor  **CEE** = Consortium for Energy Efficiency  **CFL** = Compact Fluorescent Lamp  **CMH** = Ceramic Metal Halide  **HID** = High Intensity Discharge (e.g. Mercury Vapor, High Pressure Sodium, Metal Halide)  **HO** = High Output  **LED** = Light-Emitting Diode  **PSMH** = Pulse-Start Metal Halide  **VHO** = Very High Output | | | |

PURPOSE:

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

APPLICABLE:

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

CUSTOMER PARTICIPATION:

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

DESCRIPTION:

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

QUALIFYING MEASURE:

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

QUALIFYING ENERGY MANAGEMENT:

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

PROVISIONS OF SERVICE:

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

PROVISIONS OF SERVICE: (continued)

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

# Other Programs & Initiatives

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

## Energy Education in Schools

Years of Implementation

This is a new “education only” program that replaced the previous “education and savings” program which ran from April 2003 through June 2012. The new education program, Be ***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 2012-13, 2013-14, and 2014-15 school years.

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

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

Planned Program Changes

The Company’s contract with National Energy Foundation concludes with the Fall 2014 school assembly presentations and the delivery of final reports in early 2015. In order to continue the education program for the 2015/2016 school year, the Company will issue a competitive RFP for a partner to administer the program and award a contract in time to prepare the program for Fall 2015. There are no plans to change the fundamentals of the education program, but the vendor partner may or may not change depending on the outcome of the RFP.

Evaluation Information

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

Program Details

The centerpiece of the program is a series of 45 to 60 minute grade-level presentations focusing on energy literacy and energy efficiency. The targeted grade levels are 4th or 5th 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 for their school. Those returning 50-79% of the household audit cards receive a $25 mini-grant for their school. The data is summarized and reported to determine energy efficiency behavioral data and other program participation information.

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

## Northwest Energy Efficiency Alliance

Years of Implementation

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

Program Description

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

Program Details

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

Costs include both Pacific Power’s direct funding of NEEA and the Company’s internal management costs. NEEA 2014 expenditures are based on Pacific Power’s percent of regional savings applied to NEEA’s 2014 budget presented at the October 2013 Regional Portfolio Advisory Committee meeting. Expenditures for 2015 were updated by applying Pacific Power’s share of regional savings to the 2015 budget in NEEA’s recently approved 2015-2019 Business Plan[[12]](#footnote-13). Forecasted savings were provided by NEEA on October 14, 2013 utilizing technical assumptions as of August 27, 2013.

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

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

* Building and leveraging relationships to influence the market.
* Designing and executing strategic market interventions to expand the availability and demand for energy efficient products, services and practices.
* Identifying, developing and advancing emerging opportunities to fill the pipeline for energy efficiency.
* Delivering education and training to expand market capacity to deliver and maintain 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 has more than a dozen initiatives under way as outlined in their 2010-2014 and 2015-2019 Business and Strategic Plans. More information on NEEA’s initiatives and business and strategic plans can be found at the following on the NEEA website:

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

## Production Efficiency

Years of Implementation

The Company began a detailed study of the potential energy savings from production efficiency in 2011; with the initial implementation of identified projects beginning in 2012. The Company currently anticipates the complete acquisition of cost effective production efficiency energy savings in its Washington service territory by 2017. This is due to the necessity of obtaining approvals from joint owners.

Program Description

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

Program Details

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

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

|  |  |  |  |
| --- | --- | --- | --- |
| **Description** | **2014 MWh/yr** | **Net Present Benefit ($)** | **Total Resource Cost Test** |
| HVAC Upgrades | 3 | $1,998 | 2.08 |
| Compressed Air Dryer Controls | 13 | $5,649 | 1.9 |

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

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

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

# Customer Outreach and Communications

Years of Implementation

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

Program Description

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

Program Details

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

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

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

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

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

# Cost Effectiveness

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

Cost effectiveness is provided at the following levels:

* Individual program[[13]](#footnote-14) or initiative[[14]](#footnote-15) level
* Residential energy efficiency portfolio (Company programs)
* Non-residential energy efficiency portfolio( Company programs) [[15]](#footnote-16)
* Total Company portfolio with portfolio costs added
* Total Company portfolio with portfolio costs and non-energy benefits added
* Total Company portfolio with portfolio costs and NEEA added
* Total Company portfolio with portfolio costs, NEEA and non-energy benefits added

Forecasted energy savings utilized in this analysis are gross savings and the impact of line losses is indicated with an “at site” or “at generation” designation. Line losses for retail customer programs are based on the Company’s 2012 line loss study. The line loss impact for the distribution efficiency effort is specific to the affected portion of the distribution system and was calculated by the Pacific Power engineering group. All cost effectiveness calculations utilize a Net-to-gross ratio of 1.0 consistent with the Council’s methodology. The energy savings attributed to each program are shaped according to specific 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 2013 Integrated Resource Plan (“IRP”) calculated decrement values for demand-side resource savings and avoided capacity investments. The energy efficiency resource decrement values are fully shaped to represent the 8,760 hourly values that exist within a calendar year. By matching the hourly savings with the hourly avoided costs, both energy and capacity impacts of energy efficiency savings are recognized.

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

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

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

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

# Cost Effectiveness Discussion for Revision 3 of the Business Plan

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

Final cost-effectiveness at program and portfolio levels for 2014 will be available in the Company’s 2014 Annual Report on Conservation Acquisition in March 2015.

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

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

Cost-effectiveness of the Home Energy Reports program expansion was provided as a filed revision to the Business Plan on August 20, 2014.

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

Overall, the Conservation portfolio level costs are up $150,707 from the November 2013 forecasted expenses.[[16]](#footnote-17) However, the Company’s conservation savings are up by 18% with only a ten percent increase in costs when compared to the last business plan. Since the benefits (energy savings) have increased by a higher percentage than the costs. Impacts on portfolio economics should be slightly positive and the Company does not believe revised portfolio economics are needed at this time.

**Conservation Portfolio Level 2-Year Costs**

**(current forecast compared to prior forecast)**



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

|  |  |
| --- | --- |
| **Program/Initiative** | **Last Analysis Date** |
| Low Income Weatherization | October 25, 2013 |
| See ya later, refrigerator® | October 25, 2013 |
| Home Energy Savings | October 25, 2013 |
| Home Energy Reports – extension | June 18, 2014 |
| Home Energy Reports – expansion | July 15, 2014 |
| ***watt***smart Business | October 29, 2013 |
| ***watt***smart Business – small business lighting offer | June 26, 2014 |
| NEEA | October 28, 2013 |
| Production Efficiency Initiative | November 1, 2013[[17]](#footnote-18) |
| Portfolio | October 29, 2013 |

Appendix 1

Program and Portfolio-Level Cost-Effectiveness

Appendix 2

Production Efficiency Economic Evaluation Methodology

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

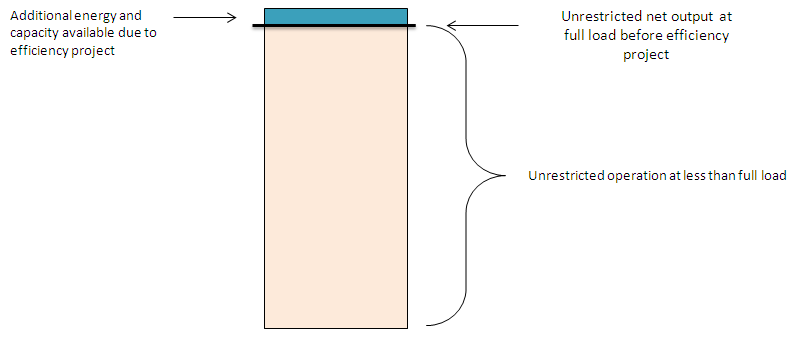
In an attempt to reduce the recovery risk to the Company and to help justify production efficiency projects to joint owners, the cost-effective methodology was examined for relevance to the production perspective. The Company has concluded that the previous production efficiency project analyses employed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

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

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

Explanation of the above differences:

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



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

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

1. Final evaluation reports are available on the Company’s website at: <http://www.pacificorp.com/es/dsm/washington.html>. [↑](#footnote-ref-2)
2. Prior to October 2000, the program offered energy efficiency funding repaid with interest on the customer’s electric bill. [↑](#footnote-ref-3)
3. Note there are no incentive caps for new construction projects where energy code applies. [↑](#footnote-ref-4)
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. [↑](#footnote-ref-5)
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. [↑](#footnote-ref-6)
6. Incentives for prescriptive measures are restricted to the amounts shown on the website. [↑](#footnote-ref-7)
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. [↑](#footnote-ref-8)
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. [↑](#footnote-ref-9)
9. 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. [↑](#footnote-ref-10)
10. Incentives for measures in this table are available only to Small Business customers as defined in the incentives table on page 2. [↑](#footnote-ref-11)
11. 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. [↑](#footnote-ref-12)
12. Approved June 20, 2014, Appendix 3 – Budget Detail. [↑](#footnote-ref-13)
13. Low Income Weatherization, Refrigerator Recycling, Home Energy Savings, Home Energy Reports [↑](#footnote-ref-14)
14. NEEA [↑](#footnote-ref-15)
15. FinAnswer Express and Energy FinAnswer are combined for analytical purposes in anticipation of consolidation [↑](#footnote-ref-16)
16. The variance is from the correct total portfolio expense as noted on page 8 of this Revision 3. [↑](#footnote-ref-17)
17. Provided as Appendix 2 of the business plan [↑](#footnote-ref-18)