PACIFIC POWER
A DIVISION OF PACIFICORP

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November 12, 2013

VIA ELECTRONIC FILING

Washington Utilities and Transportation Commission
1300 S. Evergreen Park Drive SW
P.O. Box 47250
Olympia, WA 98504-7250

Attention: Steven V. King
Executive Director and Secretary

RE: **Advice 13-08 Request to Cancel Schedules 115 and 125, and Approval of Schedule 140 – Non-Residential Energy Efficiency**

PacifiCorp, d/b/a Pacific Power and Light Company (Company) is requesting cancellation of the Energy FinAnswer and FinAnswer Express energy efficiency incentive programs for Washington customers offered through Schedule 115 and 125 and approval to consolidate these two schedules, with modifications, under a proposed Schedule 140. The changes are intended to a) add new incentive offers and measures for prescriptive incentives, b) align existing measures with changes in markets, codes, standards, and third party specifications, c) increase overall participation and energy savings achieved through the program, and d) improve administration of the program by combining the two schedules into a single tariff and standardizing the administration of the new schedule through the flexible and more responsive change process described below.

Schedule 115 follows the same administrative change process the company proposes for the new schedule, which includes advisory group input but does not require formal commission action. However, Schedule 125 utilizes a program change process that requires formal commission approval but also contains offers that are managed in a manner similar to Schedule 115.

To streamline administration, the Company requests to cancel the two existing tariffs and consolidate the programs into a single tariff, Schedule 140 - Non-Residential Energy Efficiency. The new tariff will utilize the modification procedure established with the approval of Advice No. 06-008 by the Washington Utilities and Transportation Commission. In Advice No. 06-008 (Docket No. UE-061710), the Company described the program change process as follows:

> "…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 Web site and emailed to the appropriate Commission staff person with at least 45 days advance notice."

If approved, Schedule 140 will consist of the tariff (Attachment A) that contains general information on the program with more detailed program specifics such as qualifying equipment and incentives posted to the Company Web site. The information proposed to be posted to the website is provided in Attachment B: WA Incentive Tables and Information. Subsequent changes to this information will follow the program change process described above.

The Company proposed program additions and enhancements described more fully below are 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.

Proposed Program Offer Changes

The Company retained third parties through a competitive bidding process to assist in the review of the current prescriptive program[1] and to assist in the validation of company estimates and market applicability for energy management opportunities. The reviews targeted ways to increase the level of energy savings achieved, increase the comprehensiveness of the prescriptive measures, and to provide initial economics for energy management. Several of the program modifications described herein have been informed by these reviews, and the projections were used to inform cost effectiveness. The projections are intended to capture the relative magnitude of impacts resulting from the program changes for a typical year. Actual results in a reporting period will be affected by customer access to capital, customer-specific business outlook, and other factors not controlled by the Company. A summary of key program changes are provided in the Table 1 below.

Table 1 – Program Change Overview

Tariff	Current	Proposed for Schedule 140	Comments
125 - Energy FinAnswer	$0.15/kWh + $50/kW	$0.15/kWh	Focus incentives on energy efficiency and simplify offer.
	Eligible project costs capped at 60%	Increase project cost cap to 70%	Increases incentives to increase participation.
	Customer pays for Commissioning	Program funds Savings Verification	Decreases program complexity for customers and reduces customer project costs.
	New Construction Design Assistance	Discontinue unique incentive	Low participation and offer not moving the market. Custom New Construction projects will be incentivized through the custom tract.

[1] FinAnswer Express.

Tariff	Current	Proposed for Schedule 140	Comments
	Design Honorarium	Discontinue incentive	Low participation and offer not moving the market.
	Design Incentive	Discontinue incentive	Low participation and offer not moving the market.
	Minimum 20,000 SF of existing commercial space to be eligible	Remove minimum space requirement	Remove administrative barrier to increase participation.
	Custom incentives available for listed measures	Listed measures paid at listed amounts.	Simplify customer participation process. The listed incentive is always the incentive paid (subject to caps where applicable). Allow prescriptive and custom measures to be included in single project.
115 - FinAnswer Express			See Attachment D: Explanation of Prescriptive Changes
140 – New options in consolidated tariff	N/A	Energy Management	$0.02/kWh See discussion below.
	N/A	Use modification procedure approved in Docket No. UE-061710 for information contained in Attachment B – WA Incentive Tables and Information CLEAN	Streamline program modification processes.

The current offer for custom energy efficiency projects is a combination of $0.15/kWh and $50/kW, not to exceed a specified percentage of projects costs. The current cost cap is 60% with a proposal to increase the cost cap to 70%. A company review of completed and forecasted projects indicates the energy (kWh) component of the current offer represents the vast majority of the available incentive. A review of a sample of other programs using a “standard offer” incentive indicates that most programs focus on $/kWh. A small minority of energy efficiency programs utilize $/kW, but research did not immediately locate another energy efficiency program that utilized both $/kWh and $/kW. This adjustment should be viewed in combination with the proposal to increase the project cost cap from 60% to 70% and to fund savings verification instead of requiring the customer to pay and contract for commissioning separately.

Alignment with Regional Technical Forum (RTF)

The measure review process for existing and new measures included a requirement to assess whether the RTF is currently maintaining unit energy savings (UES) value(s) that are applicable to the proposed measure(s). The results of this work are included in both Attachment D – Explanation of Prescriptive Changes for irrigation, industrial, farm and dairy measures; and in Attachment E – RTF Alignment for Commercial Measures.

Energy Management

The addition of Energy Management incentives expands the programs beyond the current focus on capital projects and helps 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 current Energy Project Manager co-funding offer.

Energy Management will offer 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 12 - 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. Energy savings potential for the Washington service territory was developed by analyzing customer loads, facility types, and typical end uses in facilities that use at least 500,000 kWh/year[2]. Initial incentive levels and program design utilizing three year measure life assumption were also included in the analysis.

Cost Effectiveness Analysis

The following approach was taken to the cost effectiveness analysis. Step one was to establish a two year business as usual case of the current programs without enhancements. The use of a two-year timeframe is designed to align with 2014-2015 biennial period. Realization rates and measure life utilized in the 2012 Washington annual report were incorporated in the assessment of the business as usual case. This case was then assessed for cost effectiveness using the 71% Load Factor West System Load Shape decrement values from Appendix N, Volume II of the 2013 IRP. Once the performance of the base case was assessed, measure group impacts were assessed at the measure group level using the same load shape and decrement values. The measures assessed are:

- Increase custom incentive cost cap from 60% to 70% of project cost

[2] Research conducted by EnerNoc Utility Solutions.

- Eliminate kW incentive and fund commissioning
- Food Service
- HVAC
- Irrigation
- Compressed Air
- Potato Storage fan VFD
- Adaptive Refrigeration Control
- Fast Acting Door
- End Use compressed air reduction
- Waste water – low power mixing
- Energy Management

Inputs for measure costs, measure life, and realization rates were specific to the measure groups, and in most cases align with 2012 annual report assumptions. Results are displayed at the measure level in Attachment F: wattsmart Cost Effectiveness Analysis Benefit and cost contributions from the measure groups were then added to the business as usual case to assess the overall impacts of the changes. Results of the cost effectiveness analysis for the enhanced program are provided in Table 2 below.

Table 2 – Cost effectiveness analysis for the enhanced program

Cost-Effectiveness Test	Levelized $/kWh	Costs	Benefits	Net Benefits	Benefit/Cost Ratio
Total Resource Cost Test (PTRC) + Conservation Adder	$0.049	$20,625,185	$32,999,523	$12,374,339	1.60
Total Resource Cost Test (TRC) No Adder	$0.049	$20,625,185	$29,999,567	$9,374,382	1.45
Utility Cost Test (UCT)	$0.023	$9,623,150	$29,999,567	$20,376,416	3.12
Rate Impact Test (RIM)		$41,466,116	$29,999,567	($11,466,549)	0.72
Participant Cost Test (PCT)		$16,449,077	$37,290,008	$20,840,931	2.27
Lifecycle Revenue Impact ($/KWh)	0.000196463				
Discounted Participant Payback (years)	4.26				

Inputs utilized in the analysis of the business as usual case and measure groups are provided in Tables 1-3 of Attachment F: wattsmart Cost Effectiveness Analysis. The additions/changes to the Food Service and HVAC measure groups are not forecasted to be cost effective from a total resource perspective though they are from a utility cost perspective. The total resource outcome is driven primarily by the challenges of identifying incremental costs for the upgrades which are based on incremental costs (and efficiency) above baseline equipment. Since these purchases typically occur when existing equipment fails and the opportunity to influence a customer to purchase more efficient replacement equipment is limited (and potentially lost), the company believes it is appropriate to offer these incentives for these measures.

Transition

In the event the Commission approves the Company's request, customers with Incentive Agreements in place prior to this filing will receive incentives consistent with the tariff(s) at the time the agreement was issued. Customers with Incentive Agreements issued between the date of this filing and the effective date approved by the Commission will receive final project incentive(s) under the new tariff unless their project would have received a higher incentive amount under the existing program(s).

Stakeholder Involvement

In accordance with Docket UE-111880 Order 01, Item (3)(a)(iii) concerning Advisory Group guidance on tariff modification, the Company presented an initial overview of the consolidated program offering to the Washington Demand-Side Management Advisory Group on October 14, 2013.

In accordance with Docket UE-111880 Order 01, Item (3)(d), the filing package was provided to the Advisory Group on November 6, 2013, prior to this advice filing being submitted to the Commission. The Company responded to questions from the group on the minor reduction in the cost effectiveness of the program, the reason the Company continues to provide incentives for HVAC measures that are not cost effective and provided additional information on the new Energy Management incentive offer.

Request

The Company respectfully requests that the Washington Utilities and Transportation Commission approve the Company's request to cancel Electric Service Schedules No. 115 – Commercial and Industrial Energy Efficiency Incentives Optional for Qualifying Customers, and 125 – Commercial and Industrial Energy Services Optional for Qualifying Customers, and approve the attached Electric Service Schedule No. 140, Non-Residential Energy Efficiency effective January 1, 2014, including information contained in Attachment B: WA Incentive Tables and Information CLEAN 110513.

Please direct any informal inquiries regarding this filing to Gary Tawwater at 503-813-6805.

Sincerely,

Kathryn Hymas/GWT

Kathryn Hymas
Vice President of Finance and Demand Side Management

Enclosures/Attachments
A: Proposed Electric Service Schedule 140: Non-Residential Energy Efficiency
B: Supporting document for web language and new incentives - clean
C: Supporting document for web language and new incentives - marked changes
D: Explanation of prescriptive changes
E: Alignment with RTF for commercial prescriptive measures
F: Cost Effectiveness Analysis
G: Schedule 115, marked Canceled
H: Schedule 125, marked Canceled
I: Notice
J: List of Proposed Tariff Sheets

ATTACHMENT A

Tariff Index

Schedule 71	Energy Exchange Program	
Schedule 73	Renewable Energy Rider - Optional Bulk Purchase Option	
Schedule 91	Surcharge to Fund Low Income Bill Assistance Program	
Schedule 95	Renewable Energy Revenue Adjustment	
Schedule 98	Adjustment Associated with the Pacific Northwest Electric Power Planning and Conservation Act	
Schedule 101	Tax Adjustment Schedule	
Schedule 102	Franchise Fee Adjustment Schedule	
Schedule 107	Residential Refrigerator Recycling Program Residential Service Option for Qualifying Customers	
Schedule 114	Residential Energy Efficiency Rider Optional for Qualifying Low Income Customers	
Schedule 118	Home Energy Savings Incentive Program	(D)
Schedule 130*	Residential Energy Services - Optional for Qualifying Customers	(D)
Schedule 135	Net Metering Service	
Schedule 136	Interconnection Tariff	
Schedule 140	Non-Residential Energy Efficiency	(N)
Schedule 191	System Benefits Charge Adjustment	
Schedule 300	Charges as Defined by the Rules and Regulations	

NOTE: *No New Service

(continued)

(N)

Schedule 140
NON-RESIDENTIAL ENERGY EFFICIENCY

PURPOSE:

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

APPLICABLE:

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

CUSTOMER PARTICIPATION:

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

DESCRIPTION:

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

QUALIFYING MEASURE:

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

QUALIFYING ENERGY MANAGEMENT:

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

PROVISIONS OF SERVICE:

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

(continued)

(N)

Schedule 140
NON-RESIDENTIAL ENERGY EFFICIENCY

PROVISIONS OF SERVICE: (continued)

(2) Company may elect to offer incentives through different channels and at different points in the sales process other than individual Energy Efficiency Incentive Agreement/Offer Letter(s) prior to equipment purchase. The differences will depend on and will be consistent for all equipment of similar type.

(3) Incentives may be offered year-round or for selected time periods.

(4) Equipment or services receiving an incentive under this program are not eligible for incentives under other Company programs.

(5) Company will employ a variety of quality assurance techniques during the delivery of the program. They will differ by measure and may include pre and post installation inspections, phone surveys, and confirmation of Owner/Customer and equipment eligibility.

(6) Company may verify or evaluate the energy savings of installed/implemented measures. This verification may include a telephone survey, site visit, review of facility operation characteristics, and pre- and post-installation of monitoring equipment and as necessary to quantify actual energy savings.

(7) Energy Project Manager co-funding is available according to the terms posted on the Washington Energy Efficiency program page of the Company website.

(8) Incentives will not be made available for fuel switching by Owner/Customer.

MINIMUM EQUIPMENT EFFICIENCY:

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

ELECTRIC SERVICE REGULATIONS:

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

(N)

ATTACHMENT B

Washington Non-Residential Energy Efficiency

This document includes the following three sections:

- Definitions of terms used in Schedule 140 and other program documents
- Incentives – General Information
- Incentive tables

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): A permanently installed measure which can improve the efficiency of the Customer's electric energy use.

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 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 **Applicable** in 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

Prescriptive incentives

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

Custom incentives

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

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

Energy management incentives

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

Energy project manager co-funding

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

Baseline adjustments

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

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

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

CUSTOM AND ENERGY MANAGEMENT INCENTIVES:[1,2]

Category	Incentive	Percent Project Cost Cap	1-Year Simple Payback Cap for Projects[3]	Other Limitations
Custom Non-Lighting Incentives for qualifying measures not on the prescriptive list.[4]	$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 1,000,000 kWh through qualified measures

[1] The Customer or Owner may receive only one financial incentive from Pacific Power per project. Financial incentives include energy efficiency incentive payments and energy management payments. Energy Project Manager Co-Funding is available in addition to the project incentives.

[2] Incentives for prescriptive measures are restricted to the amounts shown on the website and incentive caps are applied separately for retrofit lighting measures listed in the incentive tables.

[3] 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.

[4] 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.

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).*

Incentive caps for prescriptive measures (listed in incentive tables)

	Percent of Energy Efficiency Project Cost Cap	1 Year Simple Payback Cap for Energy Efficiency Projects
Lighting - Retrofit	70%	Yes
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

1. The 1 year simple payback cap means Energy Efficiency Incentives will not be available to reduce the simple payback of an Energy Efficiency Project below one year. If required, individual EEM Energy Efficiency Incentives will be adjusted downward pro-rata so the Energy Efficiency Project has a simple payback after incentives of one year or more. Incentives for measures listed in the incentive tables are restricted to the amounts in the tables. Incentive caps for retrofit lighting measures are applied separately from caps for custom and non-lighting measures listed in the incentive tables.
2. EEM Costs are subject to Pacific Power review and approval and Pacific Power may require additional documentation from the Customer or Owner.
3. Some Energy Efficiency Measures have a measure cost cap. See the incentive tables for details.

Retrofit Lighting Incentive Table

Measure	Category	Eligibility Requirements	Incentive
T8 Fluorescent			
	Premium	4' CEE Qualified Reduced Wattage or High Performance Lamp and CEE Qualified Ballast included on qualified ballast list	$7/Lamp
	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	$0.25/Lamp
	High Bay	4' CEE Qualified High Performance Lamp. Must replace T12HO/VHO, Incandescent, or HID.	$20/Lamp
	Continuous Operation	4' CEE Qualified Reduced Wattage or High Performance Lamp and CEE Qualified Ballast included on qualified ballast 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	$0.25/Lamp
	High Bay	4' Nominal High Output Lamp	$20/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	$125/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
	Outdoor Area and Roadway	LED must be listed on qualified equipment list	$100/Fixture
	Parking Garage	LED must be listed on qualified equipment list	$100/Fixture

	High and Low Bay	LED must be listed on qualified equipment list	$100/Fixture
Lighting	Custom	Not listed above	$0.10/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.

4. Two-foot U-tube lamps may be substituted for four-foot linear fluorescent lamps.

5. Incentives for T8 Premium Delamps may not be combined with other linear fluorescent lamp or fixture incentives. Complete fixture removals are not eligible.

6. Incentives for T8 Relamps may not be combined with other linear fluorescent lamp or fixture incentives and will only be paid once per facility.

7. 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	$75/Sensor
	Daylighting Control	Must control interior fixtures with driver or qualifying ballast that dims 50% or more of the fixture in response to daylight.	$75/Sensor
	Advanced Daylighting Control	Must incorporate both an occupancy sensor and daylighting sensor operating as part of the same control sequence in the same space.	$150
	Timeclock	Must control on/off schedule of lighting equipment	$20/timeclock
	Dimming Ballast	Continuous, Stepped, or Bi-level ballast or automated control that dims 50% or more of the fixture. Must be controlled by a qualifying occupancy or daylighting control.	$15/Ballast
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	$0.10/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.

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

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	$125/Fixture
	LED Outdoor Area and Roadway	LED must be listed on qualified fixture list	$100/Fixture
	Lighting Control	Integral occupancy sensor which must control a linear fluorescent, induction, or LED fixture. Sensor must be installed on a continuous duty light	$75/sensor

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 (Cooling Mode)	< 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 phase)	Split system and single package	--	CEE Tier 1	CEE Tier 2
	< 65, 000 Btu/hr (three phase)	Split system and single package	--		CEE Tier 2
	≥65,000 Btu/hr (three phase)	Split system and single package	--		--
Heat Pumps, Air-Cooled (Heating Mode) -	< 65, 000 Btu/hr (single phase)	Split system and single package (See note 3)	--	CEE Tier 1	CEE Tier 2
	< 65, 000 Btu/hr (three phase)	Split system and single package (See note 3)	--		CEE Tier 2
	≥65,000 Btu/hr (three phase)	Split system and single package (See note 3)	--		--
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 (Cooling 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
Residential Dishwasher	Used in a business	See Home Energy Savings program	See Note 2
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
	15-20 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 3 Qualified	$250
	Tier 2: Harvest Rate ≥500 lbs/day	CEE Tier 3 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.	$7 per controlled PC (up to 100% of measure costs)
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.
2. Energy Efficiency Measure Costs for Network PC Power Management Software are subject to Pacific Power approval.

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 and regulator (including nozzle)	Worn or leaking low pressure sprinkler and/or regulator	New low pressure sprinkler and regulator (including nozzle)	1. Sprinkler is rotating type, multi-trajectory spray, or multiple configuration nozzles. 2. Nozzle is part of the package, not a separate measure with additional incentive. 3. If replacing existing regulator, new regulator must be of equal or lower design pressure.	$7.50 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.

ATTACHMENT C

Washington ~~FinAnswer Express~~Non-Residential Energy Efficiency

This document includes the following three sections:

- Definitions of terms used in Schedule ~~115~~ 140 and other program documents
- Incentives – General Information
- ~~•~~Incentive tables
-

Definitions

~~**Commercial Building:** A structure that is served by Pacific Power and meets the applicability requirements of Washington Schedule 115, the program tariff, on file with the Washington Utilities & Transportation Commission at the time an Energy Efficiency Incentive Agreement is executed or an Energy Efficiency Incentive Application is submitted and which does not meet the definition of an Industrial Facility.~~

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 ~~executed~~ acknowledged Energy Efficiency Incentive ~~Agreement~~/Offer Letter or approved Energy Efficiency Incentive Application.

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

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

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

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 with similar one year payback limitations (see below) covered by one Energy Efficiency Incentive ~~Agreement~~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 ~~Agreement~~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.

~~**Industrial Facility:** Buildings and process equipment associated with manufacturing.~~

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 **Applicable** in Washington Schedule ~~115~~ 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

Prescriptive incentives

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. ~~The custom Energy Efficiency Incentive is Pacific Power's estimate of annual electric savings multiplied by $0.10/kWh and subject to the incentive caps described below.~~

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

Energy management incentives

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

Energy project manager co-funding

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

Baseline adjustments

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

a) Wattage of existing equipment, or
b) Wattage of deemed baseline ~~ballast and lamp combination~~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.

CUSTOM AND ENERGY MANAGEMENT INCENTIVES:[1],[2]

Category	Incentive	Percent Project Cost Cap	1-Year Simple Payback Cap for Projects[3]	Other Limitations
Custom Non-Lighting Incentives for qualifying measures not on the prescriptive list.[4]	$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 1,000,000 kWh through qualified measures

[1] The Customer or Owner may receive only one financial incentive from Pacific Power per project. Financial incentives include energy efficiency incentive payments and energy management payments. Energy Project Manager Co-Funding is available in addition to the project incentives.

[2] Incentives for prescriptive measures are restricted to the amounts shown on the website and incentive caps are applied separately for retrofit lighting measures listed in the incentive tables.

[3] 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.

[4] 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.

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).*

Incentive caps for prescriptive measures (listed in incentive tables)

	Percent of Energy Efficiency Project Cost Cap	1 Year Simple Payback Cap for Energy Efficiency Projects
~~Measures Listed in Incentive Tables~~		
Lighting - Retrofit	70%	Yes
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 ~~(see note)~~	~~None~~70%	~~No~~Yes
~~Dairy/~~Farm and Dairy ~~Equipment~~	~~None~~70%	~~No~~Yes
Compressed Air ~~(see note)~~	~~None~~70%	~~No~~Yes
~~Other Energy Efficiency Measures~~ Wastewater and other Refrigeration ~~(see note)~~	~~None~~70%	~~No~~Yes
~~Measures Not Listed in Incentive Tables~~		
~~Lighting - New Construction/ Major Renovation Measures Receiving a Custom Incentive~~	~~None~~	~~No~~
~~Other Measures Receiving a Custom Incentive~~	~~70%~~	~~Yes~~

1. The 1 year simple payback cap means Energy Efficiency Incentives will not be available to reduce the simple payback of an Energy Efficiency Project below one year. If required, individual EEM Energy Efficiency Incentives will be adjusted downward pro-rata so the Energy Efficiency Project has a simple payback after incentives of one year or more. Incentives for measures listed in the incentive tables are restricted to the amounts in the tables. ~~and i~~Incentive caps for retrofit lighting measures are applied separately from caps for custom and non-lighting measures listed in the incentive tables.
2. EEM Costs are subject to Pacific Power review and approval and Pacific Power may require additional documentation from the Customer or Owner.
3. ~~Two irrigation~~Some Energy Efficiency Measures have a measure cost cap. See the ~~Irrigation Equipment~~ incentive table~~s~~ for details.
4. ~~A compressed air measure has a measure cost cap. See the compressed air incentive table for details.~~
5. ~~The Network PC Power Management Software measure has a measure cost cap. See the Other Energy Efficiency Measures incentive table for details.~~

Retrofit Lighting Incentive Table

Measure	Category	Eligibility Requirements	Incentive
T8 Fluorescent	~~Standard~~	~~4' Lamp ≤ 32 Watts, Electronic ballast with Ballast Factor ≤ 0.88 (See Note 3)~~	~~$3/Lamp~~
	Premium	4' CEE Qualified Reduced Wattage or High Performance Lamp and CEE Qualified Ballast included on qualified ballast list	$7/Lamp
	Delamp	4' CEE Qualified Reduced Wattage or High Performance Lamp and CEE Qualified Ballast. ~~Must remove one or more lamps and corresponding sockets within the same fixture.~~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	$0.25/Lamp
	High Bay	4' CEE Qualified High Performance Lamp. Must replace T12HO/VHO, Incandescent, or HID ~~in a high ceiling application~~.	$20/Lamp
	Continuous Operation	4' CEE Qualified Reduced Wattage or High Performance Lamp and CEE Qualified Ballast included on qualified ballast 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	$0.25/Lamp
	High Bay	4' Nominal High Output Lamp	$20/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	$125/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
	Outdoor Area and Roadway	LED must be listed on qualified equipment list	$100/Fixture

	Parking Garage	LED must be listed on qualified equipment list	$100/Fixture
	High and Low Bay	LED must be listed on qualified equipment list	$100/Fixture
Lighting	Custom	Not listed above	$0.10/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 yearsubject to the one-year payback cap. Energy Efficiency Project Costs are subject to Pacific Power approval.

3. The incentive for Standard T8 Fluorescent will no longer be available effective July 14, 2012.

4. Two-foot U-tube lamps may be substituted for four-foot linear fluorescent lamps.

5. Incentives for T8 Premium Delamps may not be combined with other linear fluorescent lamp or fixture incentives. Complete fixture removals are not eligible.

6. Incentives for T8 Relamps may not be combined with other linear fluorescent lamp or fixture incentives and will only be paid once per facility.

7. 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	$75/Sensor
	Daylighting Control	Must control interior fixtures ~~with qualifying dimming ballast(s)~~ with driver or qualifying ballast that dims 50% or more of the fixture in response to daylight.	$75/Sensor
	Advanced Daylighting Control	Must incorporate both an occupancy sensor and daylighting sensor operating as part of the same control sequence in the same space.	$150
	Timeclock	Must control on/off schedule of lighting equipment	$20/timeclock
	Dimming Ballast	Continuous, Stepped, or Bi-level ballast or automated control that dims 50% or more of the fixture. Must be controlled by a qualifying occupancy or daylighting control.	$15/Ballast
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	$0.10/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.

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

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	$125/Fixture
	LED Outdoor Area and Roadway	LED must be listed on qualified fixture list	$100/Fixture
	~~LED Parking Garage~~	~~LED must be listed on qualified fixture list~~	~~$100/Fixture~~
	Lighting Control	Integral occupancy sensor which must control a linear fluorescent, induction, or LED fixture. Sensor must be installed on a continuous duty light	$75/sensor

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. ~~42.~~ 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.

~~4. **Incentives are not available for National Electrical Manufacturers Association (NEMA) Premium Efficiency Motors purchased on or after December 19, 2010.**~~

~~5. The following applies to Electronically Commutated Motors (ECMs) less than or equal to 1 horsepower installed in HVAC or refrigeration applications:~~

~~a. For New Construction/Major Renovations - ECMs purchased on or after the effective date of the 2009 Washington State Energy Code will not be eligible for an incentive.~~

~~b. **For Retrofits, ECMs purchased on or after the effective date of these program changes will not be eligible for incentives.**~~

~~**ECM** = Electronically Commutated Motor~~

GMPG = Green Motors Practices Group

HVAC = Heating, Ventilating and Air Conditioning

~~**NEMA** = National Electrical Manufacturer's Association~~

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 (Cooling Mode)	< 65, 000 Btu/hr (single phase)	Split system and single package	--	CEE Tier 1	CEE Tier 2
	~~< 65, 000 Btu/hr~~All equipment sizes (three phase)	Split system and single package	--		
	~~≥ 65,000 Btu/hr (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) ~~(Heating & Cooling Mode)~~	≤ 8,000 Btu/hr	Single package	12.2 EER	--	--
	> 8,000 Btu/hr and < 10,500 Btu/hr	Single package	11.9 EER	--	--
	≥ 10,500 Btu/hr and ≤ 13,500 Btu/hr	Single package	10.7 EER	--	--
	> 13,500 Btu/hr	Single package	9.9 EER	--	--
Packaged Terminal Heat Pumps (PTHP) (Heating & Cooling Mode)	≤ 8,000 Btu/hr	Single package	--	12.2 EER and 3.4 COP	--
	> 8,000 Btu/hr and < 10,500 Btu/hr	Single package	--	11.5 EER and 3.3 COP	--
	≥ 10,500 Btu/hr and ≤ 13,500 Btu/hr	Single package	--	10.7 EER and 3.1 COP	--
	> 13,500 Btu/hr	Single package	--	9.8 EER and 3.0 COP	--
Heat Pumps, Air-Cooled (Cooling Mode)	< 65, 000 Btu/hr (single phase)	Split system and single package	--	CEE Tier 1	CEE Tier 2
	< 65, 000 Btu/hr (three phase)	Split system and single package	--		CEE Tier 2
	≥ 65,000 Btu/hr (three phase)	Split system and single package	--		--
Heat Pumps, Air-Cooled (Heating Mode) - ~~See Note 2~~	< 65, 000 Btu/hr (single phase)	Split system and single package (See note 3)	--	CEE Tier 1	CEE Tier 2
	< 65, 000 Btu/hr (three phase)	Split system and single package (See note 3)	--		CEE Tier 2
	≥ 65,000 Btu/hr (three phase)	Split system and single package (See note 3)~~47°F db/43°F wb outdoor air~~	--		--
		~~17°F db/15°F wb outdoor air~~	~~--~~		~~--~~
Heat Pumps, Water-Source (Cooling Mode)	< 135,000 Btu/hr	~~86°F Entering Water~~(See note 3)	--	CEE Tier 1	--

Heat Pumps, Water-Source (Heating Mode) ~~- See Note 2~~	< 135,000 Btu/hr	(See note 3)~~68°F Entering Water~~	--	CEE Tier 1	--
Heat Pumps, Ground-Source or Groundwater-Source (Heating & Cooling Mode) ~~– See Note 2~~	All sizes	(See note 3)~~77°F Entering Water~~	--	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 (Cooling 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 Closed Loop	**$25/ton**	--	--

Notes for HVAC Equipment incentive table

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

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

~~2~~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.

~~3~~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.

~~4~~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.

~~5~~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.

~~6~~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	~~Industry Standard Rating (ISR)~~	$0.06/~~ISR~~ 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 ~~5~~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 ~~4~~5	$50/controller
Evaporative Pre-cooler (Retrofit Only)		For single air-cooled packaged rooftop or matched split system	Minimum performance efficiency of 75%. Must have enthalpy controls to control	$75/ton of attached cooling capacity

		condensers only.	pre-cooler operation. Water supply must have chemical or mechanical water treatment.	

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.~~12~~15/kWh annual energy savings~~ + $50/kW average monthly demand savings~~. IDEC energy ~~and demand~~ savings subject to approval by Pacific Power.

3. Incentives are paid at $0.~~12~~15/kWh annual energy savings~~ + $50/kW average monthly demand savings~~. Chiller energy ~~and demand~~ savings subject to approval by Pacific Power.

~~4. Controller units must include an occupancy sensor and include the capability to set back the zone temperature during extended unoccupied periods and set up the temperature once the zone is occupied.~~

~~5~~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
~~**ISR** = Industry Standard Rating~~
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.~~12~~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 ~~and Wall Insulation~~ measure~~s~~ 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
Residential Dishwasher	Used in a business	See Home Energy Savings program	See Note 2
Commercial Dishwasher (High Temperature models w/ electric boosters ~~Electric Water Heating~~ Only) ~~(See Note 3)~~	Undercounter	ENERGY STAR Qualified ~~ENERGY STAR Qualified ENERGY STAR Qualified ENERGY STAR Qualified~~	$~~500~~ 100
	Stationary Rack, Single Tank, Door Type		$~~1,000~~400
	Single Tank Conveyor		$1,~~500~~ 000
	Multiple Tank Conveyor		$~~2,000~~500
Electric Insulated Holding Cabinet	Full Size ~~– Tier 1~~	ENERGY STAR Qualified	$~~300~~ 400
	3/4 Size ~~– Tier 1~~		$~~250~~ 300
	1/2 Size ~~– Tier 1~~		$200
	~~Full Size – Tier 2~~	~~Watts/cubic feet ≤ 20 W (See Note 4)~~	~~$600~~
	~~3/4 Size – Tier 2~~		~~$500~~
	~~1/2 Size – Tier 2~~		~~$400~~
Electric Steam Cooker	3-, 4-, 5- and 6-pan or larger sizes – Tier 1	ENERGY STAR Qualified	$~~750~~ 130
	3-, 4-, 5- and 6-pan or larger sizes – Tier 2	ENERGY STAR Qualified w/ Heavy Load Efficiency ≥ ~~65~~68%~~, Idle Energy Rate ≤ 0.23 kW (See Note 4)~~	$~~840~~300
Electric Convection Oven	--	ENERGY STAR Qualified~~≥70% cooking efficiency (See Note 4)~~	$350
Electric Griddle	~~Tier 1~~	ENERGY STAR Tier ~~1~~2 Qualified	$~~250~~ 150
	~~Tier 2~~	~~ENERGY STAR Tier 2 Qualified~~	~~$350~~
Electric Combination Oven	~~–~~6-15 pans	ENERGY STAR Qualified~~Heavy Load Efficiency ≥70%, Idle Energy Rate ≤ 3.5 kW (See Note 4)~~	$1,000
	15-20 pans	ENERGY STAR Qualified	$275
Electric Commercial Fryer	Tier 1	ENERGY STAR Qualified	$200
	Tier 2	ENERGY STAR Qualified w/Cooking Efficiency ≥ ~~86.6~~85%, Idle Energy Rate ≤ ~~772~~ 860 Watts ~~(See Note 4)~~	$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 3 Qualified	$250
	Tier 2: Harvest Rate ≥ 500 lbs/day	CEE Tier 3 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 ~~Glass~~ Transparent Door Refrigerator	0 < V < 15	ENERGY STAR Qualified	$~~100~~25
	15 ≤ V < 30		$~~125~~ 50
	30 ≤ V < 50		$~~150~~ 75
	50 ≤ V		$~~175~~ 125
	Chest Configuration		$~~75~~50
Commercial ~~Glass~~ Transparent Door Freezer	0 < V < 15	ENERGY STAR Qualified	$~~300~~25
	15 ≤ V < 30		$~~325~~50
	30 ≤ V < 50		$~~375~~75
	50 ≤ V		$~~800~~100
	Chest Configuration		$100
~~Commercial Solid Door Refrigerator~~	~~0 < V < 15~~	~~ENERGY STAR Qualified~~	~~$50~~
	~~15 ≤ V < 30~~		~~$75~~
	~~30 ≤ V < 50~~		~~$100~~
	~~50 ≤ V~~		~~$125~~
	~~Chest Configuration~~		~~$75~~
~~Commercial Solid Door Freezer~~	~~0 < V < 15~~	~~ENERGY STAR Qualified~~	~~$150~~
	~~15 ≤ V < 30~~		~~$175~~
	~~30 ≤ V < 50~~		~~$200~~
	~~50 ≤ V~~		~~$300~~
	~~Chest Configuration~~		~~$150~~
~~High-Efficiency Refrigerated Beverage Vending Machine (See Note 5)~~	~~Class A~~	~~MDEC = 0.055 x V +2.56~~	~~$150~~
	~~Class B~~	~~MDEC = 0.073 x V +3.16~~	
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.~~Commercial Dishwashers must be supplied with electrically heated domestic hot water. Models with either electric or gas booster heaters are eligible for incentives.~~
~~4. To meet the Minimum Efficiency Requirement(s) listed, values must be based on testing in accordance with the applicable ASTM Standard Test Method.~~
~~5. Qualifying Beverage Vending Machines must be purchased prior to August 31, 2012. Beverage Vending Machines purchased after August 31, 2012 will not be eligible for incentives.~~

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	$~~150~~ 100
		~~CEE Tier 3 Qualified~~	~~$200~~
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 ~~Other~~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.	$7 per controlled PC (up to 100% of measure costs)
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 ~~other~~ 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.
2. Energy Efficiency Measure Costs for Network PC Power Management Software are subject to Pacific Power approval.

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

Irrigation Measure	Replace	With	Limitations	Customer Incentive
~~Sprinkler Pressure Regulators~~	~~Worn or faulty regulator~~	~~New pressure regulator~~	~~Must be same design pressure or less~~	~~$2.75 each~~
~~Rotating~~New rotating, ~~Spray-Type or Low-Pressure Sprinklers~~sprinkler replacing worn or leaking impact or rotating sprinkler	Leaking or malfunctioning impacrotating sprinkler~~Worn rotating, spray-type, low-pressure, or impact sprinklers~~	~~New rotating, spray-type, or low-pressure sprinklers~~ Rotating sprinkler	~~Must be same design flow or less~~1. Fixed-in-place (solid set) systems not eligible. 2. Incentive limited to two sprinklers per irrigated acre.	$~~3.00~~2.50 each ~~(up to 70% of cost)~~
New or ~~Rebuilt~~ rebuilt i~~I~~mpact ~~Sprinklers~~Sprinkler replacing worn or leaking impact sprinkler	~~Worn or l~~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. ~~--~~	$~~3.00~~2.25 each ~~(up to 70% of cost)~~
New nozzle replacing worn nozzle of same design flow or less on existing sprinkler~~Sprinkler Nozzles~~	~~Existing w~~Worn nozzle~~s~~	New ~~brass or plastic~~ nozzle~~s~~ 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.~~Must be same design flow or less~~	$0.50~~25~~ each
New flow control nozzle for impact sprinkler replacing existing nozzle or worn flow control nozzle of same design flow or less~~Flow Controlling Type Nozzles~~	~~Existing w~~Worn flow-controlling type nozzle~~s~~	New flow-control~~ling type~~ nozzle~~s~~	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.~~Must be same design flow or less~~	$~~1.50~~2.75 each
New gasket replacing leaking gasket, including mainline valve or section gasket, seal, or riser cap (dome disc)~~Drains and Gaskets for Wheel Lines, Hand Lines, Pivots, Linears or Portable Main Lines~~	~~Worn and~~ l~~L~~eaking ~~drains and~~ gasket~~s~~	New gasket, including mainline valve or section gasket, seal, or riser cap (dome disc)~~New drains and gaskets (Also includes seals and riser caps (dome discs) for valve openers)~~	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. ~~--~~	$~~1.00~~ 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
~~Gooseneck Elbow with Drop Tube or Boomback~~	~~Worn or leaking gooseneck elbow with drop tube or boomback~~	~~New gooseneck elbow with drop tube or boomback~~	--	~~$1.00/outlet~~
Cut and press or weld repair of leaking wheel line, hand line, or portable main line~~Repair Leaking Wheel Lines, Hand Lines or Portable Main Lines~~	Leak in wheel line, hand line, or portable main line~~Worn and leaking pipe connections or sections~~	Cut and pipe press or weld repair ~~of leaking pipe connections or sections~~	Invoice must show number of ~~joints or~~ leaks repaired	$~~8.00/joint~~10/repair
New or rebuilt wheel line leveler replacing leaking or malfunctioning leveler~~New or Rebuilt Wheel line Levelers~~	Replace leaking or malfunctioning leveler~~Worn or faulty wheel line leveler~~	New or rebuilt ~~wheel line~~ leveler	1. Applies to leaking or malfunctioning levelers only. 2. For rebuilds, invoice must show number of rebuild kits purchased and installed. --	$~~0.75~~3 each
~~Center Pivot Base Boot Gasket~~	~~Worn and leaking center pivot base boot gasket~~	~~New center pivot base boot gasket~~	--	~~$80.00 each~~
New or rebuilt wheel line feed hose replacing leaking wheel line feed hose~~Wheel line Feed Hose~~	~~Worn or l~~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.~~--~~	$~~15.00~~12 each
New Thunderbird wheel line hub replacing leaking wheel line hub~~Wheel line Hubs (for Thunderbird type wheel lines)~~	~~Worn or l~~Leaking Thunderbird wheel line hub	New Thunderbird wheel line hub	New hub must replace leaking hub~~--~~	$~~12.00~~10 each
~~Irrigation Pump VFD~~	--	~~Add VFD to existing irrigation pump motor~~	--	~~See Note 4~~

Irrigation Incentives for Pivot and Linear Systems (Retrofit Only)

Irrigation Measure	Replace	With	Limitations	Customer Incentive
Low pressure sprinkler and regulator (including nozzle)	Worn or leaking low pressure sprinkler and/or regulator	New low pressure sprinkler and regulator (including nozzle)	1. Sprinkler is rotating type, multi-trajectory spray, or multiple configuration nozzle. 2. Nozzle is part of the package, not a separate measure with additional incentive. 3. If replacing existing regulator, new regulator must be of equal or lower design pressure.	$7.50 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	Leaking drop tube	New drop tube (3 ft	Drop tube or hose extension shall	$2 per drop tube

minimum length)		minimum length) OR add new drop tube as part of conversion to low pressure system	extend below the pivot lower brace or shall be a minimum of 3 feet in length, whichever is greater.	
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. ~~Irrigation measures that meet the replacement~~Equipment that meets or exceeds the~~-~~ requirements ~~listed in the~~ above ~~table~~ may qualify for the listed incentive.

2. Except for the ~~Irrigation Pump~~ 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). ~~fixed in place systems are not eligible for the incentives listed above.~~

~~2. All equipment listed in the table will be eligible for incentives only in replacement or retrofit projects.~~

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.

~~3~~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. ~~. For measures where the incentive is limited to 70% of energy efficiency measure costs, energy efficiency measure costs are subject to Pacific Power approval.~~

~~4. Incentives are paid at $0.12/kWh annual energy savings. Irrigation Pump VFD annual energy savings subject to approval by Pacific Power.~~

VFD = Variable Frequency Drive

~~Dairy/~~Farm and Dairy ~~Equipment~~ Incentives ~~Table~~

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 ~~to slow the vacuum pump's speed when demand for vacuum is reduced~~. 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 ~~retrofit only~~. Replacement of existing automatic milker takeoffs ~~are~~ is not eligible for this listed incentive~~s~~, ~~except where Pacific Power permits as a~~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~~s~~ must achieve an efficiency level of 11 cfm/W	$25/fan
	24-35" Diameter	Fan~~s~~ must achieve an efficiency level of 18 cfm/W	$35/fan
	36-47" Diameter	Fan~~s~~ must achieve an efficiency level of 18 cfm/W	$50/fan
	≥48" Diameter	Fan~~s~~ must achieve an efficiency level of 25 cfm/W	$75/fan
Heat ~~Reclaimers~~Recovery	--	Heat ~~reclaimer~~ recovery unit must use ~~waste~~ heat rejected from milk cooling refrigeration ~~compressor~~ system to heat water. Customer must use electricity ~~to heat~~ for water heating.	~~$220/condenser kW~~$0.15/kWh annual energy savings
High-efficiency Ventilation ~~Systems~~Fans (See Note 2)	12-23" Diameter	Fan~~s~~ must achieve an efficiency level of 11 cfm/W	$45/fan
	24-35" Diameter	Fan~~s~~ must achieve an efficiency level of 13 cfm/W	$75/fan
	36-47" Diameter	Fan~~s~~ must achieve an efficiency level of 17 cfm/W	$125/fan
	≥48" Diameter	Fan~~s~~ 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 ~~See Note 3~~
Programmable Ventilation Controllers	--	~~The equipment~~Controller must control ventilation fans based on temperature or other applicable factors such as humidity, odor concentration, etc. ~~environmental settings~~.	$20/fan controlled
Variable Frequency Drives for Dairy Vacuum Pumps (Retrofit Only)	--	~~The equipment~~VFD must vary ~~the~~ motor speed based on target vacuum level. ~~in accordance with the air flow needs of the vacuum system.~~ Incentive available for retrofit only (i.e. new construction and replacement of existing VFD not eligible.) ~~for systems without an existing VFD~~.	$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 ~~dairy/~~farm and dairy ~~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. 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.~~Incentives are capped at 70 percent of Energy Efficiency Project Costs. Energy savings and Energy Efficiency Project costs are subject to Pacific Power approval. Incentives are paid at $0.12/kWh annual energy savings + $50/kW average monthly demand savings. Milk Pre-Cooler energy and demand savings subject to approval by Pacific Power.~~

4. Except where noted, all equipment listed in the table ~~will be~~ 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 ~~Table~~

Equipment Category	Replace	With	Limitations	Customer Incentive
Low-Pressure Drop Filters	Standard ~~C~~coalescing ~~F~~filter	Rated Low-Pressure Drop Filter where: 1. Pressure ~~Loss~~ loss at r~~R~~ated f~~F~~low is ≤ 1psi when new and ≤ 3psi at element change 2. Particulate f~~F~~iltration 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~~ hp and ≤ 75 ~~HP~~hp 2. Compressor discharge pressure setpoint must be reduced by 2 psi or more after installation of low pressure drop filter.	$~~0.80~~2/scfm
Receiver Capacity Addition	Limited or no r~~R~~eceiver c~~C~~apacity (≤ 2 gallons per scfm of trim compressor capacity)	Total ~~tank~~ 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 ~~s without inlet modulation or~~ on/off control. 3. Systems with ~~a~~ VFD compressor or using variable displacement ~~control~~ compressor are not eligible.	$~~1.50~~3/gallon above 2 gallons per scfm
~~Refrigerated~~ Cycling Refrigerated Dryers	Non-~~C~~cycling ~~R~~refrigerated ~~D~~dryer	Cycling ~~R~~refrigerated ~~D~~dryer	~~1. Compressor system size ≤ 75 horsepower~~ 1~~2~~. Rated dryer capacity must be ≤ 500 scfm 2~~3~~. Dryer must operate exclusively in cycling mode and cannot be equipped with the ability to select between cycling and non-cycling mode. 3~~4~~. Refrigeration compressor must cycle off during periods of reduced demand	$2~~1.50~~/scfm
VFD Controlled Compressor	~~Compressor~~ Fixed speed compressor ~~75 hp or Smaller~~	≤ 75 hp ~~single operating~~ VFD-~~C~~controlled ~~O~~oil-~~I~~injected ~~S~~screw ~~C~~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.~~Single operating compressor ≤ 75 HP~~ 2. Compressor must adjust speed as primary means of capacity control ~~3. Compressor must not use inlet modulation when demand is below the minimum speed threshold of the VFD compressor~~	$0.15/kWh annual energy savings ~~(up to 100% of EEM costs) See Note 3~~
Zero Loss Condensate Drains	~~Fixed~~ Timer ~~D~~drain	Zero ~~L~~loss ~~C~~condensate ~~D~~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. ~~(No maximum compressor size)~~	$~~90~~100 each
Outside Air Intake	Compressor intake drawing air from compressor room	≤ 75 hp compressor where permanent ductwork between compressor air intake and outdoors	~~1. Compressor system size ≤ 75 HP.~~ ~~2.~~ 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	$6~~.00~~/hp

			conditions	
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. ~~Eligibility for the above Energy Efficiency Incentives, except Zero Loss Condensate Drains, is limited to customers with compressed air system(s) containing compressors with a total system horsepower less than or equal to 75 hp in size.2.~~ Equipment that meets or exceeds the efficiency requirements ~~listed for the equipment category in the~~ above ~~table~~ 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.~~Incentives for VFD-controlled compressors are calculated based on compressor size and other system parameters at $0.15/kWh annual energy savings with a cap at 100% of energy efficiency measure costs. Energy savings and measure costs subject to approval by Pacific Power.~~
4. Zero Loss Condensate Drains purchased as an integral part of another measure are eligible for the incentive shown above. ~~as requirements for other compressed air Energy Efficiency Measures are eligible for incentives.~~
~~5. For measures where the incentive is limited to 100% of energy efficiency measure costs, energy efficiency measure costs are subject to Pacific Power approval.~~

~~HP~~ hp = horsepower
PPM = parts per million
PSI = pounds per square inch
~~SCFM~~ scfm = c~~C~~ubic f~~F~~eet of air per m~~M~~inute 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.

Incentives for Other 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.	$7 per controlled PC (up to 100% of measure costs)
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 other 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.
2. Energy Efficiency Measure Costs for Network PC Power Management Software are subject to Pacific Power approval.

ATTACHMENT D

EXPLANATION OF TYPICAL/PRESCRIPTIVE MEASURE CHANGES

NOVEMBER 12, 2013

Lighting Incentives

Table 1 highlights the proposed lighting measure changes, including modifications to align with changes in federal lighting standards.

Table 1
Retrofit Lighting Changes

Measure	Change	Reason for Change
Linear Fluorescent	As of January 1, 2014, modify the baseline for fluorescent lighting to be 32W T8 lamps with electronic ballasts that are minimally compliant with federal efficacy standards.	More stringent federal efficacy standards for general service linear fluorescent lamps have been in effect for nearly 18 months, and market data indicates that T8 lamps now represent the vast majority of lamps sold. Shift the baseline to match the industry standard baseline.
Linear Fluorescent, T8, Standard	Remove measure from incentive table.	Incentives are no longer available for Standard T8's since this measure has a sunset date of July 14, 2012. Continue to offer incentives for "premium" low-wattage or high performance T8 lamps/ballasts.
Linear Fluorescent, T8, Delamp	Clarify eligibility requirements.	Adjust eligibility requirements to indicate corresponding sockets must be removed or permanently disabled.
Linear Fluorescent, T8, High Bay	Clarify eligibility requirements.	Adjust eligibility requirements to more clearly delineate eligible replacement fixtures and applications.
Linear Fluorescent, T8, Continuous Operation	Add measure for CEE qualified T8 lamps and ballasts in a continuous operation application.	Add a higher incentive in alignment with higher savings achieved from premium T8 lighting installed in a continuous operation application to encourage greater adoption.
Linear Fluorescent, T5, Continuous Operation	Add measure for T5 lamps and ballasts in a continuous operation application.	Add a higher incentive in alignment with higher savings achieved from T5 lighting installed in a continuous operation application to encourage greater adoption.
Daylighting Control	Clarify eligibility requirements.	Adjust eligibility requirements to include interior fixtures with drivers (i.e. LEDs), and require at least 50% reduction in output of connected fixtures.

Table 2 highlights the proposed changes to new construction and major renovation lighting measures.

Table 2
New Construction/Major Renovation Lighting

Measure	Change	Reason for Change
Exterior Lighting, LED Parking Garage	Remove measure from exterior lighting classification.	Parking garages are considered an interior space as part of the State energy code, resulting in market confusion about available incentives. Incentives will be paid at $0.08/kWh annual energy savings as described in the eligibility requirements for "Interior Lighting"

Mechanical and other Energy Efficiency Incentives

Table 3 summarizes modifications for existing HVAC, building envelope, food service, appliances and office energy efficiency measures included in the program.

Table 3
Summary of Proposed Changes to Existing HVAC, Building Envelope, Food Service, Appliances and Office **Energy Efficiency Measures**

Measure Category	Measures	
HVAC	Unitary commercial air conditioners and heat pumps	Update deemed costs to align with market data.
	PTAC/PTHP Occupancy Based Controller	Revise eligibility to include door-key occupancy sensors in addition to infrared/ultrasonic sensors.
Other HVAC Equipment and Controls	Evaporative Cooling	Remove Industry Standard Rating (ISR). Overly restrictive eligibility requirement. ISR does not apply to all evaporative cooling equipment and has restricted program participation.
	Indirect-Direct Evaporative Cooling (IDEC)	Update incentive rate $/kWh to be consistent with wattsmart Business rate of $0.15/kWh annual energy savings.
	Chillers	Update incentive rate $/kWh to be consistent with wattsmart Business rate of $0.15/kWh annual energy savings.
	Portable Classroom HVAC Control	Revise eligibility to include occupancy based thermostat control in addition to 365/366 scheduling.
	Residential Room Air Conditioner (used in a Business)	Update eligibility/incentives and reported costs/savings to align with the Home Energy Savings program.
Building Envelope	Window Film	Update incentive rate $/kWh to be consistent with wattsmart Business rate of $0.15/kWh annual energy savings.
Food Service	Commercial Dishwasher	Update deemed savings/costs and incentive to align with ENERGY STAR specification

		update and current industry standard baseline. Remove eligibility requirement of electrically heated DHW, but require electric booster heater to increase program participation. Savings will vary based on DHW energy source.
	Refrigerator/Freezer	Discontinue offering incentives for solid door refrigerators/freezers. Very limited savings potential relative to industry standard baseline.
	Electric Insulated Holding Cabinet	ENERGY STAR specification now aligns with previous Tier 2 eligibility requirements. Update deemed costs/savings and maintain ENERGY STAR eligibility requirements (previously Tier 2). Discontinue Tier 2 incentive offering.
	Electric Combination Oven	Update deemed savings/costs and incentive to align with pending ENERGY STAR specification update (effective 1/1/2014). Add/define size category to account for large differences in incremental costs.
	Electric Convection Oven	Update deemed savings/costs and incentive to align with pending ENERGY STAR specification update (effective 1/1/2014).
	Electric Griddle	Discontinue offering incentives for ENERGY STAR Tier 1 electric griddles. Negligible incremental cost difference and small savings between standard and ENERGY STAR Tier 1 qualified products. Adjust eligibility requirements to ENERGY STAR Tier 2 qualified models only. Update deemed costs/savings.
	Electric Steam Cooker	Tier 1 – Update deemed costs/savings. Tier 2 - Adjust eligibility requirements and deemed savings/costs and incentive to align with revised RTF data.
	Electric Commercial Fryer	Tier 2 - Adjust eligibility requirements and deemed savings/costs and incentive to align with revised RTF data.
	Air-Cooled Ice Machines	Update deemed savings/costs and incentive to align with ENERGY STAR specification update.
	High Efficiency Refrigerated Beverage Vending Machine	Incentives are no longer available for this measure since it has a sunset date of August 31, 2012.
	LED Case Lighting	Update deemed savings and costs to align with revised RTF data.

	Residential Refrigerator (used in a Business)	Update eligibility/incentives and reported costs/savings to align with the Home Energy Savings program.
	Residential Dishwasher (used in a Business)	
Appliances	Commercial Clothes Washer	Update incentives, deemed costs/savings to align with market data for ENERGY STAR qualified models. Remove incentives for CEE Tier 3 qualified models as CEE has suspended its commercial clothes washer specification.
	Residential Water Heater (Used in a Business)	Update eligibility/incentives and reported costs/savings to align with the Home Energy Savings program.
	Residential Clothes Washer (Used in a Business)	
Office	Network Power PC Management	Update deemed savings and costs to align with data from NWPCC 6th Plan RTF since RTF measure is now limited to K-12 schools. . Update eligibility criteria to controlled laptop computers for higher savings certainty.
	Smart Plug Strip	Update deemed savings and costs to align with revised data from RTF.

To further increase participation and the comprehensiveness of the program and streamline program administration, the Company is requesting approval to add new measures to existing measure categories, as detailed below in Table 4. In addition, there are new industrial and ag measures described in Tables 5, 6 and 7.

Table 4
New Measures

Measure Category	**Measure**	**Description**
HVAC	Variable Refrigerant Flow (VRF) Heat Pump/AC	Offer a prescriptive incentive for VRF systems, which are an increasingly requested HVAC option in small/medium commercial buildings. Align eligibility requirements with CEE high-efficiency HVAC specification and calculate savings based on building type, climate and size of system.
	Evaporative Pre-Cooling	Offer a prescriptive incentive (based on air conditioning equipment size) for equipment that pre-cools air before it reaches the air conditioner condenser coil.
Food Service (Refrigeration)	Anti-Sweat Heater Controls	Offer prescriptive incentives (per linear foot of refrigerated case) for anti-sweat heater controls installed in retrofit applications. Align deemed

		savings/costs with recently approved RTF UES data.
Food Service	Demand-Controlled Kitchen Ventilation	A simplified calculator tool should be utilized to estimate savings based on kitchen operating hours, climate, and HVAC system efficiency. Incentives offered on a $/kWh saved basis.
	Residential Refrigerator/ Freezer Recycling	Allow non-residential customers to participate in the residential refrigerator and freezer recycling program for qualifying residential refrigerators and freezers used in a business.

Table 5
Modifications for Irrigation Incentives for Wheel Lines, Hand Line, or Other Portable Systems, and Pivot and Linear Systems.

Measure Category	Description of Change	Reason for Change
Irrigation	Revise Unit Energy Savings (UES) for each measure based on April 2013 RTF values for leakage or avoided excess irrigation together with average values for pumping lift, discharge pressure, and annual runtime specific to areas served by Pacific Power in Washington.	The Regional Technical Forum updated its estimates of flow reduction for each irrigation measure in April 2013, utilizing the results of a study by Dr. Howard Neibling of the University of Idaho (Evaluation of Sprinkler Irrigation System Components in Southern Idaho, March 5, 2013). These flow reduction values inform updated UES for each of the five regions addressed by the RTF – Eastern & Southern Idaho, Western Idaho, Western Washington and Oregon, Eastern Washington and Oregon, and Montana. Average values for pumping lift, pump discharge pressure, and annual runtime for each of these areas is applied to the flow reduction to derive energy savings. The same process is used to derive energy savings for the areas served by PacifiCorp, using values specific to those areas.
	Revise savings for nozzle measure from 28.0 kWh per nozzle to 26.0 kWh per nozzle. Revise incentive from $0.25 to $0.50 per nozzle.	Leakage identified in Neibling study slightly less than previously adopted PacifiCorp value. Adjust incentive to cover higher percentage of estimated current customer costs to increase participation. All nozzles on wheel line or hand line must be replaced to help maintain system application uniformity and to facilitate program quality assurance activities.
	Revise savings for flow	Leakage identified in Neibling study slightly

Measure Category	Description of Change	Reason for Change
	control nozzle measure from 28.0 kWh per nozzle to 26.0 kWh per nozzle. Revise incentive from $1.50 to $2.75 per nozzle.	less than previously adopted PacifiCorp value. Adjust incentive to cover higher percentage of estimated current customer costs to increase participation. All nozzles on wheel line or hand line must be replaced to help maintain system application uniformity and to facilitate program quality assurance activities.
	Revise savings for impact sprinkler measure from 45.0 kWh per sprinkler to 34.9 kWh per sprinkler. Revise incentive from $3.00 to $2.25 per sprinkler.	Over irrigation due to lack of uniformity identified by the Neibling study slightly less than previously adopted PacifiCorp value. Adjust available incentive for best alignment with current estimate of customer costs and available savings.
	Redefine the measure addressing rotating, spray-type, or low pressure sprinklers. For wheel lines or hand lines, define a rotating sprinkler measure using the same UES and incentive as the impact sprinkler measure. For pivot and linear applications, define a measure combination with sprinkler, regulator, and nozzle. The sprinkler may be any type of low pressure sprinkler. UES and incentive for the combination are 115.6 kWh/yr and $7.50.	For wheel line and hand line applications, replacing impact sprinklers with rotators delivers energy savings and better application uniformity and is comparable to replacing worn impact sprinklers. . Savings and costs are similar, and rotators have a slight uniformity advantage. This particular measure is not defined in the RTF 2013 workbooks likely given low adoption in the Northwest. For pivots and linears, the RTF moved to combine pressure regulators and low pressure sprinklers (with nozzle) into a single measure, given complexity of attributing lack of uniformity to a failed regulator, worn nozzle, or both. Field experience also suggests if one component is worn, the other is likely to be worn also. As a result, the standalone pressure regulator measure has been removed.
	Revise savings for gasket measure from 45.0 kWh per gasket to 156.7 kWh per gasket. Revise incentive from $1.00 to $2.00 per gasket.	Neibling study showed significantly higher average flow per leaking gasket than previously assumed. To maximize energy savings, only leaking gaskets would be incented, however this requirement would be administratively challenging. As a result, the UES for this measure has been de-rated by 25%, assuming that 25% of gasket replacements are pre-emptive rather than replacement of active leakers. Incentive adjusted upward to reflect

Measure Category	Description of Change	Reason for Change
		greater available savings and is designed to be approximately half of the estimated average material cost.
	Revise savings for drain measure from 45.0 kWh per gasket to 162.4 kWh per drain. Revise incentive from $1.00 to $3.00 per drain. Measure applies for drains on pivots and linears as well as wheel lines and hand lines.	Same rationale as for gaskets above.
	Revise savings for pipe repair measure from 89.0 kWh per leak repaired to 103.9 kWh per leak repaired. Revise incentive from $8.00 to $10.00 per leak repaired. Change wording from $ per joint to $ per leak repaired.	Neibling study indicates higher average leakage per pipe leak than prior assumptions. Incentive adjusted upward to better reflect current market costs and encourage participation. Language change from "pipe" to "leak" since more than one leak in a pipe section may be repaired.
	Revise savings for Thunderbird wheel line hub measure from 89.0 kWh to 90.0 kWh per hub. Revise incentive from $10.00 to $12.00 per hub.	Increase incentive slightly to better reflect market costs and encourage participation.
	Revise savings for leveler measure from 22.0 kWh to 51.8 kWh per leveler. Revise incentive from $0.75 to $3.00 per leveler.	Neibling study indicates higher average flow per leaking leveler than previously assumed. Increase incentive amount align with available savings and encourage participation.
	Revise savings for wheel line feed hose measure from 224.0 kWh to 210.2 kWh per hose. Revise incentive from $15.00 to $12.00 per hose.	This measure not addressed in Neibling study or contained in RTF workbooks. Previous leakage value has been retained. Savings adjusted based on territory specific information on pumping lift and annual runtime. Incentive adjusted to better align with available savings and estimated customer costs.
	Revise gooseneck and drop tube measure to separate the two into a	Combined measure had been designed to address conversion of pivots from impact sprinklers on top to low pressure sprinklers on

Measure Category	Description of Change	Reason for Change
	gooseneck measure and a drop tube measure. Define savings as 8.8 kWh/yr from gooseneck and 8.8 kWh/yr from drop tube. Revise incentive from $1.00 each for the combination to $0.50 for the gooseneck and $2.00 for the drop tube.	drop tubes. To better align with operational field practices, this measure has been separated to allow replacement of old drop tubes on existing pivots without replacing goosenecks. Separating the measure is consistent with updated RTF workbook.
	Revise savings for center pivot base boot basket from 965.0 kWh to 1,681.3 kWh. Revise incentive from $80.00 to $125.00 each.	Leakage unchanged from previous version, but average pumping lift is approximately twice the previous value. This is an RTF measure.
	Add new tower gasket measure with UES of 42.0 kWh/yr and incentive of $4.00 per gasket.	RTF added measure as part of 2013 update but it's not in the current PacifiCorp program. Added measure for completeness and consistency using RTF UES. Incentive set based on available savings.
	Expand eligibility for the pump VFD measure to include new construction projects. Clarify that efficient pumping plant equipment serving fixed in place systems are eligible (unlike flow reduction measures on the irrigation distribution equipment).	Tying pump VFD eligibility solely to retrofit installations precluded new construction pumping installations from being eligible. Fixed in place systems may have diverse pumping profiles which provide the opportunity for energy savings.
	Apply project level caps (percent of project costs and one-year payback) to all irrigation measures.	Customer costs for irrigation measures vary widely and per unit savings are comparatively small. While incentives are set to be a portion of (but not exceed) the measure costs, having caps project cost and simple payback caps consistent with the custom project offer in the program aligns program delivery with design intent and simplifies marketing to customers and trade allies.

Table 6 summarizes modifications for the Farm and dairy measures.

Table 6
Farm and Dairy

Measure Category	Description of Change	Reason for Change
Farm and Dairy	Revise the basis for determining incentives for the heat recovery measure.	The previous incentive for heat reclaim – using heat rejected from the milk refrigeration system to offset electric water heating – was calculated as $220 per condenser kW. The revised approach uses a calculator to directly calculate energy savings from lbs milk/day, temperature differences, and information about the refrigeration system. Incentive rate is aligned with the custom project rate, $0.15/kWh annual savings up to 70% of measure cost. This is a measure in the existing program and currently utilizes site specific calculations. The RTF does not maintain UES value(s) for this measure.
	Revise incentive rate for milk pre-cooler measure from the previous $0.12/kWh plus $50/kW to the new custom rate of $0.15/kWh with project level caps (percent of project costs and one-year payback).	This revision brings the incentive rate for milk pre-coolers into alignment with the standard custom rate. This is a measure in the existing program and currently utilizes site specific calculations. The RTF does not maintain UES value(s) for this measure.
	Add new measure: Variable Frequency Drives for fans in potato or onion storages.	Potato and onion storage fan VFDs have been eligible for custom incentives in the current programs. Key variables affecting energy consumption and available savings can be gathered. The measure is well suited to utilize a calculator to determine savings. Making potato/onion storage fan VFDs a listed measure enables rapid turnaround on the incentive process, low cost administration, and optimal participation by vendors and growers. The RTF has maintained a UES (on a per HP basis) for this measure in the past. In 2012 the RTF adopted the recommendation to move this measure to Out of Compliance status with sunset date of November 1, 2013.
	Apply project level caps (percent of project	Customer costs for Farm and Dairy measures vary. While incentives are set to be a portion of

	costs and one-year payback) to all Farm and Dairy measures.	(but not exceed) the measure costs, having project cost and simple payback caps consistent with the custom project offer in the program aligns program delivery with design intent and simplifies marketing to customers and trade allies.

Table 7
Compressed Air

Measure Category	Description of Change	Reason for Change
Compressed Air	Revise savings for zero loss condensate drain from 0.14590 kWh per hour of operation per year to 786.37 kWh/yr. Revise incentive from $90 each to $100 each.	Using average annual system runtime to determine Unit Energy Savings is a simpler approach for this small system measure than collecting runtime for each system to calculate system-specific savings. Experience over time with the program has led to an annual average runtime close to the DOE estimated average. This runtime has been used to simplify the UES value. Measure cost has increased slightly, and available savings support a slight increase in incentive to help further increase participation. The RTF does not maintain UES(s) for any compressed air measure(s).
	Revise savings for cycling refrigerated dryer from 0.00242 kWh per scfm per hour of operation per year to 12.73 kWh/scfm per year. Revise incentive from $1.50/scfm to $2.00/scfm. For projects where a new dryer is installed along with a new air compressor, use the Northwest Regional Compressed Air Tool to calculate dryer savings and pay the incentive at $0.15/kWh with project level caps (percent of project costs and one-year payback)rather than	Same note as above regarding runtime and RTF Incentive slightly increased to encourage participation. Cycling dryers installed with a compressor may take advantage of the fact that the load profile for the specific installation has already been estimated. The NW Regional Compressed Air calculator can calculate actual dryer savings using the compressor load profile and can package the presentation of compressor and dryer economics into the same single sheet presentation for the decision maker. Hence the use of the custom approach for the dryer when purchased in conjunction with a compressor.

	using the Unit Energy Savings kWh and incentive value.	
	Revise savings for receiver capacity addition measure from 0.00249 kWh per gallon per hour of operation per year to 13.10 kWh per gallon per year. Revise incentive from $1.50 per gallon to $3.00 per gallon of receiver capacity above the first 2 gallons/scfm of trim compressor capacity.	Same note as above regarding runtime and RTF. Incentive has been increased to encourage participation.
	Revise savings for low pressure drop filter measure from 0.00129 kWh per scfm per hour of operation per year to 6.79 kWh per scfm per year. Revise incentive from $0.80 per scfm to $2.00 per scfm.	Same note as above regarding runtime and RTF Incentive has been increased to encourage participation.
	Revise savings for outside air intake measure from 0.00931 kWh per hp per hour of operation per year to 48.97 kWh per hp per year. Incentive remains unchanged.	Same note as above regarding runtime and RTF.
	Remove the constraint on the VFD compressor measure that the system be comprised of only a single operating compressor (not counting backup capacity). Allow VFD compressors to be treated as listed measures as long as the compressor receiving the incentive is installed in a system	Clarifies program design intent to focus on smaller systems with identifiable key variables that affect energy consumption and savings. Second machines may be in place for back-up purposes and may not materially affect available energy savings. Eliminates confusion when a customer wishes to install VFD compressor in a system with a second fixed speed compressor that operates at times to keep up plant pressure and the total system is less than 75 hp in total capacity. Systems with multiple compressors can be handled through a combination of calculators and program staff engineering calculations outside of the

	with total capacity of 75 hp or less, not counting backup compressor(s) that do not normally run.	calculator.
	For the VFD compressor measure, remove the constraint that "compressor must not use inlet modulation when demand is below the minimum speed threshold of the VFD compressor."	Aligns program eligibility with best available market information on how various manufacturers control a compressor when demand for compressed air is less than that delivered by the machine once the VFD has slowed to its minimum allowable speed. Some of these methods are more efficient than others, yet the net effect on savings is minimal given the amount of time system typically is in this operating mode. Removing the language broadens the equipment options for customers.
	Add compressed air end use reduction as a new listed measure. Use the NW Regional Compressed Air Tool to estimate savings and pay $0.15/per kWh with project level caps (percent of project costs and one-year payback).	Inefficient uses of compressed air are very common in industry. Where functionally equivalent alternatives are available, savings can be had by undertaking small projects to make a change in the system. Examples include replacing simple blowing applications with engineered nozzles, using electric pumps in place of air operated pumps, and adding isolation valves to close off a portion of a distribution system when not operating (saving on leak load). Compressed air savings in cfm may be estimated by program staff, and the NW Regional Compressed Air tool may then be used to estimate savings and incentives. This approach makes such small projects feasible to administer.
	Apply project level caps (percent of project costs and one-year payback) to all Compressed Air projects.	Customer costs for Compressed Air measures vary. While incentives are set to be a portion of (but not exceed) the measure costs, having project cost and simple payback caps consistent with the custom project offer in the program aligns program delivery with design intent and simplifies marketing to customers and trade allies.

Table 8
Waste Water and Other Refrigeration

Measure Category	Description of change	Reason for Change
Other – Refrigeration, Wastewater	Add adaptive refrigeration control as a new listed measure. Use calculator to estimate savings and pay at the custom rate of $0.15/per kWh with project level caps (percent of project costs and one-year payback).	Adaptive refrigeration controllers replace conventional thermostat, defrost time clock and defrost termination controls in refrigerated spaces cooled by unitary systems. Projects are typically small, with savings ranging from 2,000 to 20,000 kWh per controller, depending on system size. Savings is readily determined using nameplate information and operating schedules. These opportunities are efficiently administered as a calculator-based listed measure. The RTF has maintained a floating head pressure control UES for single systems. The RTF measure derives savings from different control points in the refrigeration system. In addition, in December of 2012, the RTF adopted the recommendation to change the measure status to Out of Compliance with sunset date of December 31, 2013.
	Add fast acting door as a new listed measure. Use calculator to estimate savings and pay at the custom rate of $0.15/per kWh with project level caps (percent of project costs and one-year payback).	Fast acting doors replace manually operated doors, automatic doors with long cycle times, strip curtains, or entryways with no door at all in refrigerated or conditioned space. Savings is highly situation specific. A calculator-based listed measure takes into account the details of each situation, while affording an efficient administrative approach.
	Add low power mixer as a new listed measure. Use calculator to estimate savings and pay at the custom rate of $0.15/per kWh with project level caps (percent of project costs and one-year payback).	Low power mixers, also called extended range circulators, take the place of high powered mixers or the practice of using aeration for mixing in wastewater treatment ponds. A calculator-based approach is an effective method of generating leads and administering project using the custom incentive rate and cap.

ATTACHMENT E

Table D 1: Appliances – Alignment with RTF Unit Energy Savings

Measure	FinAnswer Express Measure Type		RTF Measure Information			Recommended Information		
	Deemed	Other	Deemed Savings	Status	Sunset Date	Savings Aligned with RTF	Explanation of Variance in Savings	Source
Clothes Washers (Commercial)	✓		✓	Active 4/16/2013	3/31/2015	NO	Savings are a weighted average of calculated RTF values. Calculations use RTF methodology/baseline with ENERGY STAR minimum efficiency criteria and DOE weighted average cycles per year.	ENERGY STAR, DOE, CEE, RTF
Clothes Washers (Residential)	✓		✓	Active 9/17/2013	2/28/2015	NO	Identical to HES.	RTF, HES/TRL
Room Air Conditioners	✓			Deactivated 5/15/2012	N/A	N/A	Identical to HES.	RTF, HES/TRL
Water Heaters (Residential)	✓		✓	Active 9/18/2012	N/A	NO	Identical to HES.	RTF, HES/TRL

Table D 3: Envelope – Alignment with RTF Unit Energy Savings

Measure	FinAnswer Express Measure Type		RTF Measure Information			Recommended Information		
	Deemed	Other	Deemed Savings	Status	Sunset Date	Savings Aligned with RTF	Explanation of Variance in Savings	Source
Cool Roofs	✓			1		N/A		NEXANT (DEER, PG&E,)
Commercial Roof Insulation	✓		✓	None (2/1/11)		N/A	RTF motion to approve deemed savings estimates for small commercial weatherization failed on a split vote. (2/1/2011) Modeled savings account for specific program eligibility requirements relative to existing (retrofit) or code-compliant (new construction/major renovation) building. Energy model accounts for climate variation specific to utility service territory.[2]	NEXANT (eQUEST)
Commercial High Efficiency Windows	✓		✓	None (2/1/11)		N/A		NEXANT (eQUEST)
Commercial Wall Insulation	✓		✓	None (2/1/11)		N/A		NEXANT (eQUEST)
Reflective Window Film		✓		1		N/A		

1. RTF has not defined Unit Energy Savings for this measure.

Table D 5: Food Service – Alignment with RTF Unit Energy Savings

Measure	FinAnswer Express Measure Type		RTF Measure Information			Recommended Information		
	Deemed	Other	Deemed Savings	Status	Sunset Date	Savings Aligned with RTF	Explanation of Variance in Savings	Source
Dishwasher (Residential unit in commercial facility)	✓		✓	Active (12/11/2012)	5/31/2014	NO	Identical to HES.	RTF, HES/TRL
Refrigerators (Residential unit in commercial facility)	✓		✓	Active (4/16/2013)	4/30/2015	NO	Identical to HES.	RTF
Refrigerators - Transparent Door (Commercial)	✓		✓	Active (10/24/12)	1/1/2016	NO	Recommended values based on ENERGY STAR v 3 efficiency criteria, with DOE NOPR baseline. RTF values based on ENERGY STAR v2 and CFR 2010 baseline.	RTF, ENERGY STAR, DOE
Air-Cooled Ice Machines (Air-cooled)	✓		✓	Out-of-compliance (10/24/2012)	11/30/2013	NO	RTF efficiency requirements do not match current CEE, ENERY STAR requirements.	ENERGY STAR. RTF, CEE, DOE
Electric Commercial Fryers	✓		✓	Active (7/16/2013)	7/31/2018	YES (Tier 2)	RTF efficient case for calculating savings higher than program minimum efficiency requirement (ENERGY STAR). Used RTF data/recommended efficiency to define additional high-efficiency Tier 2 and calculate savings relative to FSTC Base Efficiency Fryer baseline.	RTF, ENERGY STAR, FSTC
Dishwasher (Commercial unit)	✓			Out-of-compliance (10/24/2012)	11/30/2013	NO	RTF baseline for calculating savings higher than program minimum efficiency requirement (ENERGY STAR).	RTF,ENERGY STAR
Electric Insulated Holding Cabinets	✓		✓	Active (7/16/2013)	7/31/2018	NO	RTF size categories do not align with program minimum efficiency (ENERGY STAR) size categories.	RTF, ENERGY STAR

Measure	FinAnswer Express Measure Type		RTF Measure Information			Recommended Information		
	Deemed	Other	Deemed Savings	Status	Sunset Date	Savings Aligned with RTF	Explanation of Variance in Savings	Source
Electric Steam Cookers	✓		✓	Active (7/16/2013)	7/31/2018	YES (Tier 2)	RTF efficient case for calculating savings higher than program minimum efficiency requirement (ENERGY STAR). Used RTF data/recommended efficiency to define additional high-efficiency Tier 2 excluding RTF market penetration de-rating.	RTF, ENERGY STAR
Electric Convection Oven	✓		✓	Active (7/16/2013)	7/31/2018	NO	RTF efficient case for calculating savings higher than program minimum efficiency requirement (ENERGY STAR). Utilized RTF savings calculator with ENERGY STAR minimum efficiency requirement.	RTF, ENERGY STAR
Electric Griddle	✓			1		N/A		ENERGY STAR
Electric Combination Oven	✓		✓	Active (7/19/2013)	7/31/2018	YES	No variance in savings. Eligibility aligns with program minimum efficiency requirements.	FSTC, RTF, PG&E
LED Refrigeration Case Lighting	✓		✓	Reach-in case Active (12/11/2012)	6/30/2015	YES	Averaged RTF savings for T8 retrofits.	RTF
	✓		✓	Open Cases Out-of-compliance (1/23/2013)	1/23/2015	YES	Averaged RTF savings for T8 retrofits.	RTF
Demand Controlled Kitchen Ventilation		✓		1		N/A		
Anti Sweat Heater Controls	✓		✓	Active (9/17/13)	9/30/2016	Yes	No variance in savings. Eligibility aligns with program minimum efficiency requirements.	RTF

1. RTF has not defined Unit Energy Savings for this measure.

Table D 6: HVAC – Alignment with RTF Unit Energy Savings

Measure	FinAnswer Express Measure Type		RTF Measure Information			Recommended Information		
	Deemed	Other	Deemed Savings	Status	Sunset Date	Savings Aligned with RTF	Explanation of Variance in Savings	Source
Unitary Commercial Air-Conditioners, Air-Cooled		✓		1		N/A		
Unitary Commercial Air-Conditioners, Water & Evap-Cooled		✓		1		N/A		
Heat Pumps, Air-Cooled		✓		1		N/A		
Heat Pumps, Water-Source		✓		1		N/A		
Packaged Terminal Air Conditioners (PTAC)	✓			1		N/A		NEXANT
Packaged Terminal Heat Pump (PTHP)	✓			1		N/A		NEXANT
Evaporative Cooling	✓			1		N/A		NEXANT
Chillers		✓		1		N/A		
Occupancy Based PTHP/PTAC Control	✓			1		N/A		XCEL ENERGY
Indirect/Direct Evaporative Coolers		✓		1		N/A		
Portable Classroom Control	✓			1		N/A		NEXANT (eQUEST)
Ground Source/ Geothermal Heat Pumps		✓		1		N/A		
Variable Refrigerant Flow		✓		1		N/A		
Evaporative Pre-Cooling	✓			1		N/A		

1. RTF has not defined Unit Energy Savings for this measure.

Table D 8: Lighting – Alignment with RTF Unit Energy Savings

Measure	FinAnswer Express Measure Type		RTF Measure Information			Recommended Information		
	Deemed	Other	Deemed Savings	Status	Sunset Date	Savings Aligned with RTF	Explanation of Variance in Savings	Source
T8 Fluorescents		✓		1		N/A		
T5 Fluorescents		✓		1		N/A		
CFLs		✓		1		N/A		
Ceramic Metal Halides (CMH)		✓		1		N/A		
Pulse Start Metal Halides (PSMH)		✓		1		N/A		
Lighting Controls		✓		1		N/A		
Exit Signs		✓		1		N/A		
LED Message Center and Channel Letter Signs	✓			1		N/A		NEXANT
Cold Cathodes		✓		1		N/A		
Induction		✓		1		N/A		
LEDs		✓		1		N/A		
Advanced Daylighting Control		✓		1		N/A		
LED Marquee Cabinet Signs	✓			1		N/A		NEXANT
Other Lighting		✓		1		N/A		

1. RTF has not defined Unit Energy Savings for this measure.

Table D 9: Motors and VFD – Alignment with RTF Unit Energy Savings

Measure	FinAnswer Express Measure Type		RTF Measure Information			Recommended Information		
	Deemed	Other	Deemed Savings	Status	Sunset Date	Savings Aligned with RTF	Explanation of Variance in Savings	Source
VFDs (HVAC Applications)	✓			1		N/A		NEXANT
Green Motor Rewinds - Agricultural	✓		✓	Active (4/16/2013)	10/31/2017	YES		RTF
Green Motor Rewinds - Industrial	✓		✓	Active (4/16/2013)	10/31/2017	YES		RTF

1. RTF has not defined Unit Energy Savings for this measure.

ATTACHMENT F

CADMUS

MEMORANDUM

Date: **November 5, 2013**

To: **Don Jones, Jr.**

From: **Aaron Jenniges**

Re: **WA Business Program 2014-2015 Cost-Effectiveness by Scenario**

The tables below present the cost-effectiveness findings of the Washington Business Program scenarios and measures based on 2014-15 costs and savings estimates provided by PacifiCorp in a spreadsheet entitled "Copy of 2014-2015 Business Plan Tables 10232013 - REV for Energy management 102613.xlsx" and in an email on November 4, 2013. The utility discount rate is from the 2013 PacifiCorp Integrated Resource Plan.

Cost-effectiveness was tested using the 2013 IRP 71% load factor west system decrements. Table 1 shows the financial input assumptions.

Table 1: Business Program Financial Inputs

Input Description	2014	2015	2014-15
Discount Rate	6.88%	6.88%	6.88%
Commercial Line Loss	9.53%	9.53%	9.53%
Industrial Line Loss	8.16%	8.16%	8.16%
Irrigation Line Loss	9.67%	9.67%	9.67%
Inflation Rate	1.90%	1.90%	1.90%

Table 2 shows the 2014-15 utility and participant costs by scenario. Table 3 shows the 2014-15 KWh savings, realization rates, and measure lives by scenario.

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Table 2: 2014-15 Utility and Participant Costs by Scenario

Scenario	Year	Program Delivery Costs	Utility Delivery Costs	Incentives	Total Utility Costs	Participant Measure Costs
Energy FinAnswer	2014	$660,413	$233,771	$1,562,433	$2,456,616	$4,206,056
	2015	$726,454	$257,148	$1,718,676	$2,702,278	$4,626,661
Portfolio - Business As Usual	2014	$1,430,462	$414,423	$2,532,628	$4,377,512	$7,906,221
	2015	$1,498,275	$438,215	$2,691,103	$4,627,594	$8,335,340
Increase Custom Incentive Project Cost Cap	2014	$14,221	$5,034	$136,751	$156,006	$90,570
	2015	$15,643	$5,537	$150,426	$171,606	$99,627
Eliminate kW $ and Fund Cx	2014	$68,543	$0	($41,815)	$26,728	($68,543)
	2015	$75,397	$0	($45,996)	$29,401	($75,397)
Food Service	2014	$2,294	$538	($850)	$1,982	$30,198
	2015	$5,837	$1,370	$4,531	$11,738	$54,836
HVAC	2014	$1,446	$339	$5,000	$6,785	$42,500
	2015	$2,726	$640	$9,500	$12,865	$77,650
Irrigation	2014	$11,254	$2,641	$7,800	$21,694	$27,083
	2015	$11,254	$2,641	$7,841	$21,735	$27,056
Compressed Air	2014	$10,433	$2,448	$17,958	$30,840	$43,510
	2015	$10,433	$2,448	$17,958	$30,840	$43,510
Potato storage Van VFD	2014	$2,683	$630	$4,650	$7,963	$9,900
	2015	$2,683	$630	$4,650	$7,963	$9,900
Adaptive Refrigeration Control	2014	$8,512	$2,510	$17,100	$28,122	$34,000
	2015	$8,917	$2,629	$18,000	$29,546	$37,200
Fast Acting Door	2014	$3,513	$1,036	$7,800	$12,349	$32,500
	2015	$7,836	$2,310	$17,400	$27,547	$72,500
End Use Compressed Air Reduction	2014	$3,895	$914	$6,750	$11,560	$11,200
	2015	$4,112	$965	$7,125	$12,202	$11,800
Wastewater - Low Power Mixing	2014	$5,998	$1,727	$13,500	$21,225	$40,000
	2015	$5,998	$1,727	$13,500	$21,225	$40,000
Energy Management	2014	$67,355	$7,000	$10,506	$84,861	$27,086
	2015	$135,989	$7,000	$21,055	$164,044	$54,727

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Table 3: 2014-15 Energy Savings and Measure Lives by Scenario

Scenario	Year	Gross KWh Savings	Realization Rate	Adjusted Gross KWh Savings	Net-to-Gross Ratio	Net Adjusted KWh Savings	Measure Life (Years)
Energy FinAnswer	2014	12,504,708	95%	11,890,420	100%	11,890,420	14
	2015	13,755,179	95%	13,079,462	100%	13,079,462	14
Portfolio - Business As Usual	2014	20,395,389	97%	19,742,722	100%	19,742,722	14
	2015	21,664,015	97%	20,949,831	100%	20,949,831	14
Increase Custom Incentive Project Cost Cap	2014	269,268	95%	256,040	100%	256,040	14
	2015	296,195	95%	281,644	100%	281,644	14
Eliminate kW $ and Fund Cx	2014	0	95%	0	100%	0	14
	2015	0	95%	0	100%	0	14
Food Service	2014	26,500	97%	25,705	100%	25,705	12
	2015	67,438	97%	65,414	100%	65,414	12
HVAC	2014	22,500	72%	16,200	100%	16,200	15
	2015	42,425	72%	30,546	100%	30,546	15
Irrigation	2014	130,000	97%	126,100	100%	126,100	6
	2015	130,000	97%	126,100	100%	126,100	6
Compressed Air	2014	120,525	97%	116,909	100%	116,909	9
	2015	120,525	97%	116,909	100%	116,909	9
Potato storage Van VFD	2014	31,000	97%	30,070	100%	30,070	10
	2015	31,000	97%	30,070	100%	30,070	10
Adaptive Refrigeration Control	2014	126,000	94%	118,440	100%	118,440	14
	2015	132,000	94%	124,080	100%	124,080	14
Fast Acting Door	2014	52,000	94%	48,880	100%	48,880	14
	2015	116,000	94%	109,040	100%	109,040	14
End Use Compressed Air Reduction	2014	45,000	97%	43,650	100%	43,650	9
	2015	47,500	97%	46,075	100%	46,075	9
Wastewater - Low Power Mixing	2014	90,000	95%	85,500	100%	85,500	14
	2015	90,000	95%	85,500	100%	85,500	14
Energy Management	2014	525,293	95%	499,028	100%	499,028	3
	2015	1,033,105	95%	981,450	100%	981,450	3

Table 4 provides a summary of the benefit/cost ratios from each of the five cost-effectiveness test perspectives by scenario. All scenarios were cost-effective with the following exceptions:

- Eliminate kW $ and Fund Cx, Food Service, and HVAC are not cost-effective (benefit/cost ratio is less than 1.0) from the PTRC (Total Resource Cost Test + Conservation Adder) and TRC (Total Resource Cost) perspectives.
- Fast Acting Doors and Energy Management are not cost-effective from the TRC perspective but are cost-effective from the PTRC perspective.

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- Only Eliminate kW $ and Fund Cx does not have a UCT (Utility Cost Test) benefit/cost ratio greater than 1.0.
- No scenarios are cost-effective from the RIM (Ratepayer Impact) perspective.
- Eliminate kW $ and Fund Cx, Food Service, and HVAC are not cost-effective from the PCT (Participant Cost Test).

Table 4: Benefit/Cost Ratios by Scenario

Scenario	PTRC	TRC	UCT	RIM	PCT
Energy FinAnswer	1.87	1.70	3.53	0.77	2.45
Portfolio - Business As Usual	1.62	1.48	3.28	0.73	2.26
Increase Custom Incentive Project Cost Cap	1.88	1.71	1.20	0.53	3.71
Eliminate kW $ and Fund Cx	0.00	0.00	0.00	0.00	0.00
Food Service	0.69	0.62	4.38	0.72	0.85
HVAC	0.32	0.29	1.85	0.61	0.45
Irrigation	1.15	1.04	1.97	0.63	2.01
Compressed Air	1.14	1.04	1.90	0.63	1.84
Potato storage Van VFD	1.38	1.25	2.08	0.65	2.25
Adaptive Refrigeration Control	2.07	1.88	3.06	0.77	2.92
Fast Acting Door	1.06	0.97	2.90	0.76	1.31
End Use Compressed Air Reduction	1.50	1.37	1.89	0.63	2.68
Wastewater - Low Power Mixing	1.43	1.30	2.93	0.76	1.86
Energy Management	1.00	0.91	1.09	0.51	3.92
Business Program Portfolio	**1.60**	**1.45**	**3.12**	**0.72**	**2.27**

Complete cost-effectiveness results are presented for the following scenarios and measures:

- Energy FinAnswer (Table 5)
- Portfolio – Business as Usual (Table 6)
- Increase Custom Incentive Project Cost Cap (Table 7)
- Eliminate KW $ and Fund Cx (Table 8)
- Food Service (Table 9)
- HVAC (Table 10)
- Irrigation (Table 11)
- Compressed Air (Table 12)

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- Potato Storage Van VFD (Table 13)
- Adaptive Refrigeration Control (Table 14)
- Fast Acting Door (Table 15)
- End Use Compressed Air Reduction (Table 16)
- Wastewater – Low Power Mixing (Table 17)
- Energy Management (Table 18)
- Business Program Portfolio (Table 19): Includes Portfolio – Business as Usual , Eliminate KW $ and Fund Cx, Increase Custom Incentive Project Cost Cap, Food Service, HVAC, Irrigation, Compressed Air, Potato Storage Van VFD, Adaptive Refrigeration Control, Fast Acting Door, End Use Compressed Air Reduction, Wastewater – Low Power Mixing, and Energy Management

Table 5: WA 2014-15 Business Program – Energy FinAnswer

Cost-Effectiveness Test	Levelized $/kWh	Costs	Benefits	Net Benefits	Benefit/Cost Ratio
Total Resource Cost Test (PTRC) + Conservation Adder	$0.042	$10,349,265	$19,363,567	$9,014,302	1.87
Total Resource Cost Test (TRC) No Adder	$0.042	$10,349,265	$17,603,243	$7,253,978	1.70
Utility Cost Test (UCT)	$0.020	$4,984,898	$17,603,243	$12,618,345	3.53
Rate Impact Test (RIM)		$22,721,387	$17,603,243	($5,118,144)	0.77
Participant Cost Test (PCT)		$8,534,812	$20,906,934	$12,372,122	2.45
Lifecycle Revenue Impact ($/KWh)	0.000091739				
Discounted Participant Payback (years)	3.86				

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Table 6: WA 2014-15 Business Program – Portfolio Business As Usual

Cost-Effectiveness Test	Levelized $/kWh	Costs	Benefits	Net Benefits	Benefit/Cost Ratio
Total Resource Cost Test (PTRC) + Conservation Adder	$0.048	$19,361,545	$31,453,664	$12,092,120	1.62
Total Resource Cost Test (TRC) No Adder	$0.048	$19,361,545	$28,594,240	$9,232,696	1.48
Utility Cost Test (UCT)	$0.022	$8,707,141	$28,594,240	$19,887,099	3.28
Rate Impact Test (RIM)		$39,082,623	$28,594,240	($10,488,383)	0.73
Participant Cost Test (PCT)		$15,704,858	$35,425,936	$19,721,078	2.26
Lifecycle Revenue Impact ($/KWh)	0.000187996				
Discounted Participant Payback (years)	4.41				

Table 7: WA 2014-15 Business Program – Increase Custom Incentive Project Cost Cap

Cost-Effectiveness Test	Levelized $/kWh	Costs	Benefits	Net Benefits	Benefit/Cost Ratio
Total Resource Cost Test (PTRC) + Conservation Adder	$0.042	$222,854	$418,615	$195,760	1.88
Total Resource Cost Test (TRC) No Adder	$0.042	$222,854	$380,559	$157,705	1.71
Utility Cost Test (UCT)	$0.059	$316,562	$380,559	$63,996	1.20
Rate Impact Test (RIM)		$720,460	$380,559	($339,901)	0.53
Participant Cost Test (PCT)		$183,783	$681,389	$497,606	3.71
Lifecycle Revenue Impact ($/KWh)	0.000006092				
Discounted Participant Payback (years)	0.58				

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Table 8: WA 2014-15 Business Program – Eliminate kW $ and Fund Cx

Cost-Effectiveness Test	Levelized $/kWh	Costs	Benefits	Net Benefits	Benefit/Cost Ratio
Total Resource Cost Test (PTRC) + Conservation Adder	$0.000	$0	$0	$0	0.00
Total Resource Cost Test (TRC) No Adder	$0.000	$0	$0	$0	0.00
Utility Cost Test (UCT)	$0.000	$54,236	$0	($54,236)	0.00
Rate Impact Test (RIM)		$54,236	$0	($54,236)	0.00
Participant Cost Test (PCT)		($139,085)	($84,849)	$54,236	0.00
Lifecycle Revenue Impact ($/KWh)	N/A				
Discounted Participant Payback (years)	N/A				

Table 9: WA 2014-15 Business Program – Food Service

Cost-Effectiveness Test	Levelized $/kWh	Costs	Benefits	Net Benefits	Benefit/Cost Ratio
Total Resource Cost Test (PTRC) + Conservation Adder	$0.112	$91,078	$62,424	($28,654)	0.69
Total Resource Cost Test (TRC) No Adder	$0.112	$91,078	$56,749	($34,329)	0.62
Utility Cost Test (UCT)	$0.016	$12,964	$56,749	$43,786	4.38
Rate Impact Test (RIM)		$78,666	$56,749	($21,917)	0.72
Participant Cost Test (PCT)		$81,503	$69,092	($12,412)	0.85
Lifecycle Revenue Impact ($/KWh)	0.000000436				
Discounted Participant Payback (years)	N/A				

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Table 10: WA 2014-15 Business Program – HVAC

Cost-Effectiveness Test	Levelized $/kWh	Costs	Benefits	Net Benefits	Benefit/Cost Ratio
Total Resource Cost Test (PTRC) + Conservation Adder	$0.251	$120,084	$38,214	($81,870)	0.32
Total Resource Cost Test (TRC) No Adder	$0.251	$120,084	$34,740	($85,344)	0.29
Utility Cost Test (UCT)	$0.039	$18,822	$34,740	$15,918	1.85
Rate Impact Test (RIM)		$56,623	$34,740	($21,883)	0.61
Participant Cost Test (PCT)		$115,150	$51,689	($63,461)	0.45
Lifecycle Revenue Impact ($/KWh)	0.000000375				
Discounted Participant Payback (years)	N/A				

Table 11: WA 2014-15 Business Program – Irrigation

Cost-Effectiveness Test	Levelized $/kWh	Costs	Benefits	Net Benefits	Benefit/Cost Ratio
Total Resource Cost Test (PTRC) + Conservation Adder	$0.058	$79,291	$91,057	$11,765	1.15
Total Resource Cost Test (TRC) No Adder	$0.058	$79,291	$82,779	$3,487	1.04
Utility Cost Test (UCT)	$0.031	$42,030	$82,779	$40,749	1.97
Rate Impact Test (RIM)		$132,035	$82,779	($49,257)	0.63
Participant Cost Test (PCT)		$52,397	$105,142	$52,744	2.01
Lifecycle Revenue Impact ($/KWh)	0.000001609				
Discounted Participant Payback (years)	2.78				

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Table 12: WA 2014-15 Business Program – Compressed Air

Cost-Effectiveness Test	Levelized $/kWh	Costs	Benefits	Net Benefits	Benefit/Cost Ratio
Total Resource Cost Test (PTRC) + Conservation Adder	$0.064	$109,151	$124,491	$15,340	1.14
Total Resource Cost Test (TRC) No Adder	$0.064	$109,151	$113,174	$4,023	1.04
Utility Cost Test (UCT)	$0.035	$59,694	$113,174	$53,480	1.90
Rate Impact Test (RIM)		$180,238	$113,174	($67,064)	0.63
Participant Cost Test (PCT)		$84,218	$155,305	$71,087	1.84
Lifecycle Revenue Impact ($/KWh)	0.000001632				
Discounted Participant Payback (years)	3.74				

Table 13: WA 2014-15 Business Program – Potato Storage Van VFD

Cost-Effectiveness Test	Levelized $/kWh	Costs	Benefits	Net Benefits	Benefit/Cost Ratio
Total Resource Cost Test (PTRC) + Conservation Adder	$0.054	$25,575	$35,218	$9,642	1.38
Total Resource Cost Test (TRC) No Adder	$0.054	$25,575	$32,016	$6,441	1.25
Utility Cost Test (UCT)	$0.032	$15,413	$32,016	$16,603	2.08
Rate Impact Test (RIM)		$49,560	$32,016	($17,544)	0.65
Participant Cost Test (PCT)		$19,163	$43,147	$23,985	2.25
Lifecycle Revenue Impact ($/KWh)	0.000000396				
Discounted Participant Payback (years)	3.01				

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Table 14: WA 2014-15 Business Program – Adaptive Refrigeration Control

Cost-Effectiveness Test	Levelized $/kWh	Costs	Benefits	Net Benefits	Benefit/Cost Ratio
Total Resource Cost Test (PTRC) + Conservation Adder	$0.038	$90,629	$187,735	$97,106	2.07
Total Resource Cost Test (TRC) No Adder	$0.038	$90,629	$170,668	$80,039	1.88
Utility Cost Test (UCT)	$0.023	$55,766	$170,668	$114,903	3.06
Rate Impact Test (RIM)		$222,787	$170,668	($52,119)	0.77
Participant Cost Test (PCT)		$68,805	$200,963	$132,158	2.92
Lifecycle Revenue Impact ($/KWh)	0.000000934				
Discounted Participant Payback (years)	2.76				

Table 15: WA 2014-15 Business Program – Fast Acting Door

Cost-Effectiveness Test	Levelized $/kWh	Costs	Benefits	Net Benefits	Benefit/Cost Ratio
Total Resource Cost Test (PTRC) + Conservation Adder	$0.074	$114,374	$121,455	$7,081	1.06
Total Resource Cost Test (TRC) No Adder	$0.074	$114,374	$110,413	($3,960)	0.97
Utility Cost Test (UCT)	$0.025	$38,122	$110,413	$72,292	2.90
Rate Impact Test (RIM)		$145,821	$110,413	($35,408)	0.76
Participant Cost Test (PCT)		$100,332	$131,779	$31,447	1.31
Lifecycle Revenue Impact ($/KWh)	0.000000635				
Discounted Participant Payback (years)	9.56				

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Table 16: WA 2014-15 Business Program – End Use Compressed Air Reduction

Cost-Effectiveness Test	Levelized $/kWh	Costs	Benefits	Net Benefits	Benefit/Cost Ratio
Total Resource Cost Test (PTRC) + Conservation Adder	$0.048	$31,800	$47,754	$15,955	1.50
Total Resource Cost Test (TRC) No Adder	$0.048	$31,800	$43,413	$11,614	1.37
Utility Cost Test (UCT)	$0.035	$22,976	$43,413	$20,438	1.89
Rate Impact Test (RIM)		$69,203	$43,413	($25,790)	0.63
Participant Cost Test (PCT)		$22,240	$59,644	$37,404	2.68
Lifecycle Revenue Impact ($/KWh)	0.000000628				
Discounted Participant Payback (years)	1.98				

Table 17: WA 2014-15 Business Program – Wastewater Low Power Mixing

Cost-Effectiveness Test	Levelized $/kWh	Costs	Benefits	Net Benefits	Benefit/Cost Ratio
Total Resource Cost Test (PTRC) + Conservation Adder	$0.055	$92,377	$132,415	$40,038	1.43
Total Resource Cost Test (TRC) No Adder	$0.055	$92,377	$120,378	$28,000	1.30
Utility Cost Test (UCT)	$0.024	$41,083	$120,378	$79,294	2.93
Rate Impact Test (RIM)		$158,773	$120,378	($38,395)	0.76
Participant Cost Test (PCT)		$77,424	$143,820	$66,396	1.86
Lifecycle Revenue Impact ($/KWh)	0.000000688				
Discounted Participant Payback (years)	5.50				

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Table 18: WA 2014-15 Business Program – Energy Management

Cost-Effectiveness Test	Levelized $/kWh	Costs	Benefits	Net Benefits	Benefit/Cost Ratio
Total Resource Cost Test (PTRC) + Conservation Adder	$0.066	$286,426	$286,480	$54	1.00
Total Resource Cost Test (TRC) No Adder	$0.066	$286,426	$260,437	($25,990)	0.91
Utility Cost Test (UCT)	$0.055	$238,342	$260,437	$22,095	1.09
Rate Impact Test (RIM)		$515,090	$260,437	($254,653)	0.51
Participant Cost Test (PCT)		$78,289	$306,953	$228,663	3.92
Lifecycle Revenue Impact ($/KWh)	0.000013645				
Discounted Participant Payback (years)	0.61				

Table 19: WA 2014-15 Business Program Portfolio

Cost-Effectiveness Test	Levelized $/kWh	Costs	Benefits	Net Benefits	Benefit/Cost Ratio
Total Resource Cost Test (PTRC) + Conservation Adder	$0.049	$20,625,185	$32,999,523	$12,374,339	1.60
Total Resource Cost Test (TRC) No Adder	$0.049	$20,625,185	$29,999,567	$9,374,382	1.45
Utility Cost Test (UCT)	$0.023	$9,623,150	$29,999,567	$20,376,416	3.12
Rate Impact Test (RIM)		$41,466,116	$29,999,567	($11,466,549)	0.72
Participant Cost Test (PCT)		$16,449,077	$37,290,008	$20,840,931	2.27
Lifecycle Revenue Impact ($/KWh)	0.000196463				
Discounted Participant Payback (years)	4.26				

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ATTACHMENT G

Schedule 115
COMMERCIAL & INDUSTRIAL ENERGY EFFICIENCY INCENTIVES – OPTIONAL FOR QUALIFYING CUSTOMERS

PURPOSE:

Service under this Schedule is intended to maximize the efficient utilization of the electricity requirements of new and existing loads in Commercial Buildings and Industrial Facilities through the installation of Energy Efficiency Measures.

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 Commercial Buildings and Industrial 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 Web site.

DESCRIPTION:

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

QUALIFYING EQUIPMENT:

Equipment which when installed in an eligible facility results in verifiable electric energy efficiency improvement compared to existing equipment or baseline equipment as determined by the Company.

PROVISIONS OF SERVICE:

(1) Qualifying equipment of services, incentive amounts, and other terms and conditions will be listed on the Washington energy efficiency program section of the Company Web site 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 Web site and include a minimum 45 day grace period for processing prior offers.

(2) Company may elect to offer EEM incentives through different channels and at different points in the sales process other than individual Energy Efficiency Incentive Agreement(s) prior to EEM purchase. The differences will depend on EEM and will be consistent for all EEMs 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.

(continued)

Schedule 115
COMMERCIAL & INDUSTRIAL ENERGY EFFICIENCY INCENTIVES – OPTIONAL FOR QUALIFYING CUSTOMERS

PROVISIONS OF SERVICE: (continued)

(5) Company may offer payment as described on the Washington energy efficiency program section of the Company Web site to a design team member to encourage early initial Company consultation on Owner/Customer design and plans for New Construction/Major Renovation.

(6) Company will employ a variety of quality assurance techniques during the delivery of the program. They will differ by EEM and may include pre and post installation inspections, phone surveys, confirmation of Owner/Customer and equipment eligibility.

(7) Company may verify or evaluate the energy savings of installed EEMs. 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.

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.

ATTACHMENT H

Schedule 125
COMMERCIAL & INDUSTRIAL ENERGY SERVICES – OPTIONAL FOR QUALIFYING CUSTOMERS

PURPOSE:

Service under this Schedule is intended to maximize the efficient utilization of the electricity requirements of new and existing loads in Commercial and Industrial Facilities by promoting the installation of Energy Efficiency Measures.

APPLICABLE:

To service under the Company's General Service Schedules 24, 33, 36, 40, 47T, 48T and 54 in all territory served by the Company in the State of Washington. This Schedule is not applicable to existing Commercial Buildings under 20,000 square feet. Square footage is the total Building or Facility area served by the Company's meter(s).

DEFINITIONS:

Annual kWh Savings: The annual kilowatt-hour (kWh) savings resulting from installation of the Energy Efficiency Measures, as estimated by Company using engineering analysis.

Average Monthly kW Savings: The Average Monthly kilowatt (KW) savings resulting from the installation of Energy Efficiency Measures as estimated by Company using engineering analysis as described below:

Average monthly KW Savings = (baseline average monthly kW - proposed average monthly kW), where:

- Average monthly kW = sum of the 12 Monthly Maximum kW/12, where
- Monthly Maximum kW = highest of all 15 minute average kW (as determined below)
- 15 minute average kW = sum of kWh used over 0.25 hrs /0.25 hrs

Baseline Level:

Baseline Adjustments: Company may adjust baseline electric energy consumption and costs during engineering analysis 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. For existing fixtures, baseline wattages for all fluorescent lighting Energy Efficiency Measures in all facilities shall be the lesser of existing equipment or the energy efficient magnetic ballast and energy saving lamp combination listed in the lighting table available on the Washington energy efficiency program section of the Company web site.

Commercial Building: A structure that is served by Company and meets the applicability requirements of this tariff at the time an Energy Efficiency Incentive Agreement is executed which does not meet the definition of an Industrial Facility.

Commissioning: The process of verifying and documenting that the performance of electric energy using systems meets the design intent and owner's operational requirement.

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.

(continued)

Schedule 125
COMMERCIAL & INDUSTRIAL ENERGY SERVICES – OPTIONAL FOR QUALIFYING CUSTOMERS

DEFINITIONS: (continued)

Energy Efficiency Incentive: Payment of money made by Company to Owner or Customer for installation of an Energy Efficiency Project pursuant to an executed Energy Efficiency Incentive Agreement.

Energy Efficiency Incentive Agreement: An agreement between Owner or Customer and Company providing for Company to furnish Energy Efficiency Incentive with respect to Energy Efficiency Project pursuant to this tariff schedule.

Energy Efficiency Measure (EEM): A permanently installed measure specified in an Energy Efficiency Incentive Agreement which can improve the efficiency of the Customer's electric energy use. EEMs designed to primarily reduce Average Monthly kW must also reduce electric energy use to be eligible for Energy Efficiency Incentives.

Energy Efficiency Measure (EEM) Cost: New construction: EEM Cost is the total installed cost of the energy efficient equipment or system minus the cost of the code compliance/common practice equipment or system.

Major Renovation: EEM Cost is the total installed cost of the energy efficient 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 renovation 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 the Company, or other consideration that reduces the final actual EEM Cost incurred by the Owner or Customer) to purchase and install EEMs at the Owner 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.

For Energy Efficiency Projects involving EEM(s) that save both natural gas and electricity where the Owner or Customer can reasonably expect to receive an incentive from their gas company, the EEM Cost will be pro-rated prior to calculating the Energy Efficiency Incentive. This does not apply to design assistance projects.

Energy Efficiency Project: One or more EEM(s) covered by one Energy Efficiency Incentive Agreement. Annual kWh and Average Monthly kW savings for an Energy Efficiency Project shall be the sum of the individual EEM values.

Energy Efficiency Project Cost: Energy Efficiency Project cost shall be the sum of the individual EEM costs.

Industrial Facility: Buildings and process equipment associated with manufacturing.

(continued)

Schedule 125
COMMERCIAL & INDUSTRIAL ENERGY SERVICES – OPTIONAL FOR QUALIFYING CUSTOMERS

DEFINITIONS: (continued)

Mixed Use: Buildings served by a residential schedule and a rate schedule listed under **Applicable** 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.

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

Owner: The person who has both legal and beneficial title to the real property specified in an Energy Efficiency Incentive Agreement or Energy Services Agreement or who is the mortgagor under a duly recorded mortgage or the grantor under a duly recorded deed of trust or a purchaser under a duly recorded agreement with respect to such real property.

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

Supplemental Services Agreement: An agreement between Owner or Customer and Company providing for Company to furnish Supplemental Services with respect to Supplemental Services section of this Tariff Schedule.

INCENTIVES FOR ENERGY EFFICIENCY PROJECTS:

Energy Efficiency Incentives: The Energy Efficiency Incentive made by the Company for installation of EEMs pursuant to an Energy Efficiency Incentive Agreement shall be the **lesser** of the sum of (a) and (b) **OR** (c):

(a) $0.15/kWh for the Energy Efficiency Project Annual kWh savings as determined using Company provided or approved engineering analysis;
(b) $50/kW for the Energy Efficiency Project Average Monthly kW savings determined using Company provided or approved engineering analysis.
(c) 60 percent of the Energy Efficiency Project Cost as determined by the Company.

Energy Efficiency Projects are eligible for Energy Efficiency Incentives per Table 1.

(continued)

Schedule 125
COMMERCIAL & INDUSTRIAL ENERGY SERVICES – OPTIONAL FOR QUALIFYING CUSTOMERS

INCENTIVES FOR ENERGY EFFICIENCY PROJECTS: (continued)

Table 1

Program track	**Design Assistance**	**Standard**	**Standard**	**Standard**
Project Scope	Comprehensive	System	System	System
Type	New Construction/ Major renovation	New Construction/ Major renovation	New Construction/ Major renovation	Retrofit
Energy code applies	Yes	Yes	No	No
Owner/Customer Energy Efficiency Incentive caps applied to the Energy Efficiency Project				
60 % of project cost cap	No	Yes	Yes	Yes
1 yr simple payback cap	No	Yes	Yes	Yes
Lighting savings cap	No	50%	50%	50%
Energy savings threshold	Must exceed code by 10% - whole building electric basis	Qualifying equipment must exceed code	none	none
Design team incentives				
Honorarium	Yes	Yes	Not available	Not available
Design Incentive	Based on project size	Not available	Not available	Not available

All proposed Energy Efficiency Measure costs are subject to Company review and approval prior to offering an Energy Efficiency Incentive Agreement. All final Energy Efficiency Measure costs are subject to Company review and approval prior to paying an Energy Efficiency Incentive per the terms of an Energy Efficiency Incentive Agreement. Company review and approval of Energy Efficiency Measure costs may require additional documentation from the Customer or Owner.

For the purposes of calculating maximum annual electric savings resulting from lighting, electric savings resulting from lighting interaction with mechanical equipment and from lighting controls will be considered to be lighting savings.

The ten percent whole building energy savings threshold shall be calculated as follows: The Energy Efficiency Project must reduce the proposed electric energy consumption by at least 10% when compared to the baseline level of whole building electric consumption that would have resulted under the current Washington energy code. The date of the building permit application shall establish the current version of the code.

(continued)

Schedule 125
COMMERCIAL & INDUSTRIAL ENERGY SERVICES – OPTIONAL FOR QUALIFYING CUSTOMERS

INCENTIVES FOR ENERGY EFFICIENCY PROJECTS: (continued)

The Customer or Owner may receive only one financial incentive from the Company per EEM. Design team incentives are available per Table 1 and the terms posted on the Washington energy efficiency program page of the Company web site.

Energy Project Manager co-funding is available according to the terms posted on the Washington Energy Efficiency program page of the Company web site.

PROVISIONS OF SERVICE:

(1) **Energy Analysis**

Company shall meet with Customer or Owner and any design team and may perform an initial site visit/plans review to determine what EEMs may be appropriate for an energy analysis.

(2) **Supplemental Services**

Company may offer Supplemental Services beyond those described elsewhere in this Tariff Schedule through a Supplemental Services Agreement. Supplemental services shall include, but are not limited to: detailed design, life cycle costs calculations or compliance documentation for green or high performance building standards. Company will negotiate the amount and terms of the supplemental services on a project specific basis and may require any or all of the following: installation of EEMs delivering a certain amount of annual kWh savings, offset of a portion of the available incentive or direct reimbursement of a portion (up to 100%) of the direct Company costs for the service provided.

(3) **EEM Inspection**

Company will inspect any EEMs which are funded by or installed under this program. Satisfactory inspection by Company will be required prior to receiving Energy Efficiency Incentives specified in the Energy Efficiency Incentive Agreement.

(4) **EEM Commissioning**

Company will require that EEMs as specified in the Energy Efficiency Incentive Agreement be commissioned prior to receiving Energy Efficiency Incentives specified in the Energy Efficiency Incentive Agreement.

(4a) **Commissioning Opt-Out:** Required EEM Commissioning may be omitted with the following adjustments. Annual kWh savings, Average Monthly kW savings and eligible EEM Costs will all be reduced by 20% prior to calculation of the eligible Energy Efficiency Project Incentive. EEMs where the Owner or Customer has "opted–out" of EEM Commissioning that are later commissioned are not eligible for an additional incentive after the Energy Efficiency Project Incentive is paid.

(5) **Measure Performance Verification/Evaluation**

Company may verify or evaluate the energy savings of installed Energy Efficiency Measures specified in the Energy Efficiency Incentive Agreement. This verification may include a telephone survey, site visit, review of plant operation characteristics, and pre- and post-installation of monitoring equipment as necessary to quantify actual energy savings.

(continued)

Schedule 125
COMMERCIAL & INDUSTRIAL ENERGY SERVICES – OPTIONAL FOR QUALIFYING CUSTOMERS

PROVISIONS OF SERVICE: (continued)

(6) **Minimum Equipment Efficiency**

For Retrofit Energy Efficiency Projects, EEMs must meet minimum equipment efficiency levels and equipment eligibility requirements in Schedule 115 to be eligible for incentives available under this Schedule.

(7) **Prior Energy Service program participation requirements and definitions:**

- Energy Efficiency Payments are not available to Owners after July 16, 2001. The elimination of the Energy Service Charge portion associated with Schedule 125 does not affect Energy Service Charges' currently outstanding and obligations pursuant to an executed Energy Services Agreement remain in effect until the Energy Efficiency Payment with interest is re-paid in full.
- **Energy Efficiency Payments:** Any payments of money made by Company to Owner for installation of EEMs pursuant to an Energy Services Agreement.
- **Energy Services Agreement:** An agreement between the Owner and the Company providing for Company to furnish or provide Energy Efficiency Payments with respect to EEMs pursuant to this Tariff Schedule.
- **Energy Services Charge:** As specified in the Energy Services Agreement, the monthly Energy Services Charge is that monthly payment required to repay the Energy Efficiency Payments, with interest at the Melded Interest Rate or the Performance Guarantee Interest Rate as applicable, in equal monthly payments over the term specified in the Energy Services Agreement.

(8) **Fuel Switching**

Energy Efficiency Incentives will not be made available to induce fuel switching by Owner.

(9) **Design team incentives**

Company may offer incentives to a design team member with current professional certification including architects and engineers. Incentives are available per Table 1 and include honorariums and design incentives.

Honorariums are designed to encourage early initial Company consultation on Owner/Customer's design and plans. Honorariums will be equally available to all professionally certified architects and engineers for Washington projects within Company's territory and will be limited to one honorarium per project.

Design incentives will be offered to all professional certified architects and engineers for Washington projects within Company's territory. Payment of incentives to the design team will require final construction documents include an efficient design meeting Company requirements. Incentives will be based on the square footage of the project and limited to one per project.

Additional conditions for design team incentives will be available on the Washington energy efficiency program section of the Company's web site and may be changed with 45 days notice posted on the web site.

(continued)

PACIFIC POWER & LIGHT COMPANY

WN U-75

Original Sheet No. 125.7

Schedule 125
COMMERCIAL & INDUSTRIAL ENERGY SERVICES – OPTIONAL FOR QUALIFYING CUSTOMERS

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 13, 2011 **Effective:** June 13, 2011
Advice No. 11-01

Issued By Pacific Power & Light Company

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

ATTACHMENT I

NOTICE
PACIFIC POWER & LIGHT COMPANY

In accordance with Washington Law (including without limitation RCW 80.28.050 and -060) and the Washington Utilities and Transportation Commission's (Commission) Rules & Regulations, Pacific Power & Light Company (Company) has filed with the Commission the original tariff schedules for electric service in the State of Washington.

Overview

The Company is requesting cancellation of the Energy FinAnswer and FinAnswer Express energy efficiency incentive programs for Washington customers offered through Schedule 115 and 125 and approval to consolidate these two schedules, with modifications, under a proposed new Schedule 140.

DATED: November 12, 2013

PACIFIC POWER

By William R. Griffith /GWT
William R. Griffith
Vice President, Regulation

ATTACHMENT J

The proposed tariff sheets to be revised in Pacific Power & Light Company's currently effective Tariff WN U-75 are designated as follows:

Third Revision of Sheet No. INDEX.3		Tariff Index
Original Sheet No. 140.1	Schedule 140	Non-Residential Energy Efficiency
Original Sheet No. 140.2	Schedule 140	Non-Residential Energy Efficiency
CANCEL Original Sheet No. 115.1	Schedule 115	Commercial & Industrial Energy Efficiency Incentives – Optional for Qualifying Customers
CANCEL Original Sheet No. 115.2	Schedule 115	Commercial & Industrial Energy Efficiency Incentives – Optional for Qualifying Customers
CANCEL Original Sheet No. 125.1	Schedule 125	Commercial & Industrial Energy Services – Optional for Qualifying Customers
CANCEL Original Sheet No. 125.2	Schedule 125	Commercial & Industrial Energy Services – Optional for Qualifying Customers
CANCEL Original Sheet No. 125.3	Schedule 125	Commercial & Industrial Energy Services – Optional for Qualifying Customers
CANCEL Original Sheet No. 125.4	Schedule 125	Commercial & Industrial Energy Services – Optional for Qualifying Customers
CANCEL First Revision of Sheet No. 125.5	Schedule 125	Commercial & Industrial Energy Services – Optional for Qualifying Customers
CANCEL Original Sheet No. 125.6	Schedule 125	Commercial & Industrial Energy Services – Optional for Qualifying Customers
CANCEL Original Sheet No. 125.7	Schedule 125	Commercial & Industrial Energy Services – Optional for Qualifying Customers