

June 4, 2012

***VIA ELECTRONIC FILING
AND OVERNIGHT DELIVERY***

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

Attention: David W. Danner
Executive Director and Secretary

RE: Docket UE-111880 – PacifiCorp’s Demand-side Management Business Plan Revisions

Pursuant to Docket UE-111880, Order 01, Condition (5), PacifiCorp, d.b.a. Pacific Power & Light Company (PacifiCorp or Company) submits to the Washington Utilities and Transportation Commission (Commission) revisions to its Demand-side Management (DSM) Business Plan. This report was originally provided as Appendix 7, in the Ten-year Achievable Conservation Potential and Biennial Conservation Target for 2012 and 2013, and filed with the Commission on January 31, 2012. Attached please find one original and two (2) copies of PacifiCorp’s Revised DSM Business Plan.

As outlined in Condition (5) of the Order, PacifiCorp is required to “maintain its conservation tariffs on file with the Commission. Program details about specific measures, incentives and eligibility requirements must be filed as tariff attachments or as revisions to PacifiCorp’s DSM Business Plan.” Enclosed are program revisions to the DSM Business Plan that reflect changes to the FinAnswer Express and Home Energy Savings programs as well as the addition of the Home Energy Reports program and the cancellation of the Energy Education program.

Modifications were made to the FinAnswer Express and Home Energy Savings programs to improve customer participation, comply with code changes, align incentives with changing measure costs and savings estimates and improve cost effectiveness. The Home Energy Reports program is being added to the DSM Business plan as a means to better inform residential customers about their energy usage by providing comparative energy usage data for similar homes located in the same geographical area. The Home Energy Report provides the customer with information on how to modify their energy usage, which can lead customers to modify behavior and/or make structural, equipment, lighting or appliance changes and reduce their overall electric energy consumption.

The termination of Schedule 113, Energy Education Program is currently before the Commission with a requested effective date of July 1, 2012. All of these changes have been discussed at various times with the Washington DSM Advisory Group over the last year.

Washington Utilities and Transportation Commission

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If you have any questions regarding this report, please contact Carla Bird at (503) 813-5269.

Sincerely,

A handwritten signature in cursive script that reads "William R. Griffith / by [initials]".

William R. Griffith

Vice President of Regulation

Enclosures

Demand-side Management 2012-2013 Business Plan - Washington

Revision 1
June 4, 2012



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Executive Summary

As required by Order 02 of Docket UE-100170, dated July 29, 2010, PacifiCorp (the “Company”) filed with the Washington Utilities and Transportation Commission (the “Commission”) a Biennial Conservation Plan including revised program details and program tariffs, including information related to distribution efficiency initiatives (“DEI”) and production efficiency potential in non-hydro generation facilities, together with identification of its 2012-2021 achievable conservation potential, on January 31, 2012. In compliance with the Commission’s direction to include revised program details and program tariffs as part of the Company’s Biennial Conservation Plan, the Company is providing this update to the Demand-side Management Business Plan (the “Business Plan”), for years 2012-2013.

The Company’s Biennial Conservation Plan for 2012-2021 was approved by the Commission at open meeting on April 12, 2012, Order 01 of Docket UE-111880. It directs the Company to maintain its conservation tariffs, with program descriptions, on file with the Commission. Program details about specific measures, incentives, and eligibility requirements must be filed as tariff attachments or as revisions to the Company’s DSM Business Plan. Since the filing of the Business Plan on January 31, 2012, the Company has implemented changes to the FinAnswer Express and Home Energy Savings programs, introduced a Home Energy Reports program, and will discontinue Schedule 113, the Energy Education in Schools program, at the end of the 2011-12 school year. In addition, Order 01 changed the Company’s authorization for the collection of distribution and production efficiency initiative study costs through Schedule 191, beyond 2013.

This update to PacifiCorp’s Business Plan reflects updated savings, projections and budgets by program or initiative for 2012 and 2013, as well as revised and or new program descriptions and eligibility requirements as required. PacifiCorp will continue to add, delete and/or modify programs, measures, initiatives or specific projects described in this Business Plan going forward as appropriate and as circumstances warrant.

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

- Program, initiative and/or project descriptions
- Description of planned program changes
- Program evaluation update¹
- Program details including specific measures, incentives, and eligibility requirements

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

2012-2013 Budget and Savings by Program

Table 1 below provides the projected savings and expenditures by program, initiative, and proposed program or activity to achieve the **8.7 to 9.0 aMW** biennial target for 2012 and 2013 described in the Company's Biennial Conservation Plan, dated January 31, 2012. While 2012 and 2013 business plan calendar year forecasts (in Table 1) are not in exact alignment with the 2012 and 2013 conservation forecasts for the same years, the total forecasted acquisitions over the biennial period represent resources equal to or greater than the Company's 2012-2013 biennial target savings.

Table 1
2012 – 2013 Biennial Target Savings and Budget Projections by Program

Program	2012 PacifiCorp Washington Conservation Estimates				2013 PacifiCorp Washington Conservation Estimates				2012 + 2013
	Gross kWh/Yr Savings @site	Gross kWh/Yr Savings @gen	Gross aMW Savings @gen	Estimated Expenditures	Gross kWh/Yr Savings @site	Gross kWh/Yr Savings @gen	Gross aMW Savings @gen	Estimated Expenditures	Gross aMW Savings @gen
Low Income Weatherization (114) ^{note 1}	270,480	294,463	0.03	\$ 824,000	270,480	294,463	0.03	\$ 824,000	0.07
Refrigerator Recycling (107) ^{note 2}	1,423,390	1,549,602	0.18	\$ 300,000	1,423,390	1,549,602	0.18	\$ 300,000	0.35
Home Energy Savings (118) ^{note 3}	7,371,151	8,024,751	0.92	\$ 1,570,825	9,211,718	10,028,521	1.14	\$ 1,830,215	2.06
Home Energy Reports ^{note 4}	1,176,000	1,280,000	0.15	\$ 118,671	4,604,000	5,013,000	0.57	\$ 132,120	0.72
Total Residential	10,241,021	11,148,816	1.27	\$ 2,813,496	15,509,588	16,885,586	1.93	\$ 3,086,335	3.20
Energy FinAnswer (125)	1,463,143	1,590,861	0.18	\$ 498,000	1,530,000	1,663,554	0.19	\$ 480,000	0.37
FinAnswer Express (115)	4,978,230	5,412,780	0.62	\$ 1,057,000	5,137,506	5,585,959	0.64	\$ 1,063,241	1.26
Total Commercial	6,441,373	7,003,640	0.80	\$ 1,555,000	6,667,506	7,249,513	0.83	\$ 1,543,241	1.63
Energy FinAnswer (125)	8,422,543	9,057,855	1.03	\$ 2,276,000	8,801,400	9,465,290	1.08	\$ 2,720,000	2.11
FinAnswer Express (115)	1,944,427	2,091,095	0.24	\$ 413,000	1,943,544	2,090,146	0.24	\$ 402,229	0.48
Total Industrial	10,366,970	11,148,951	1.27	\$ 2,689,000	10,744,944	11,555,435	1.32	\$ 3,122,229	2.59
Energy Education in Schools (113) ^{note 5}	-	-	-	\$ 250,000	-	-	-	\$ -	-
Northwest Energy Efficiency Alliance ^{note 6}	8,413,980	9,160,048	1.05	\$ 1,157,000	7,669,380	8,349,424	0.95	\$ 1,212,456	2.00
Distribution efficiency	928,735	972,360	0.111	\$ 341,400	1,966,620	2,058,600	0.235	\$ -	0.346
Production efficiency	23,100	23,100	0.003	\$ 375,000	54,120	54,120	0.006	\$ 213,800	0.01
Total - conservation programs	36,415,179	39,456,915	4.50	\$ 9,180,896	42,612,158	46,152,678	5.27	\$ 9,178,061	9.773
Customer outreach/communication	-	-	-	\$ 250,000				\$ 250,000	-
Program Evaluations ^{note 7}	-	-	-	\$ 779,000				\$ 475,000	
Potential study update/analysis ^{note 8}	-	-	-	\$ 80,000				\$ 15,000	
Measure data documentation ^{note 9}	-	-	-	\$ 200,000				\$ 50,000	
Res. admin. of prior programs ^{note 10}				\$ 1,500				\$ 1,500	-
Total System Benefit Charge Expenses^{note 11}	36,415,179	39,456,915	4.50	\$ 10,491,396	42,612,158	46,152,678	5.27	\$ 9,969,561	9.77

Table Notes:

1. Low income forecasts for 2012 and 2013 are based on historic levels adjusted for the anticipated decrease in American Reinvestment and Recovery Act of 2009 funding. The Company maintains \$1 million annually available for matching commitments.
2. Refrigeration recycling unit energy savings have been adjusted for the 2012 and 2013 reporting periods based on new information from the program's 2009-2010 Washington impact evaluation. The new information was incorporated into an RTF approved calculation to arrive at the revised unit energy savings for each appliance type (refrigerators and freezers). The effect of this new information is a downward adjustment in the Company's initial ten-year forecast. The adjustment is further explained in "Appendix 4, Additional Detail – Forecast Adjustments" to the Company's Biennial Conservation Plan.
3. Compact fluorescent lighting in the Home Energy Savings program assumes a reduction in burn hours consistent with RTF (reduced from 2.3 hours to 1.9 hours) and a non-install factor of 36 percent for twisters, 20 percent for specialty bulbs. In addition to these two adjustments, the Company has made an adjustment to reflect the interaction between efficient lighting and space conditioning equipment. The effect of this adjustment is an additional downward adjustment in the Company's initial ten-year forecast, biennial target and program specific savings forecast provided September 15, 2011. The adjustment is further explained in "Appendix 4, Additional Detail – Forecast Adjustments" to the Company's Biennial Conservation Plan.
4. Net savings are forecasted for the Home Energy Reports program to avoid double counting of savings attributed to other programs.
5. No savings are forecasted to be tracked and reported from the Energy Education in School program this biennium. The program will be discontinued and tariff will be cancelled after the 2011-12 school year.
6. Northwest Energy Efficiency Alliance ("NEEA") costs are based on PacifiCorp's percent of regional funding for the 2010-2014 funding cycle. Forecasted savings were provided by NEEA on September 1, 2011, and represent the expected changes in Washington efficiency baselines in the areas NEEA works, i.e. lighting, consumer electronics, appliances, business IT, etc. less the portion of that change incented through utility programs. See Appendix 9 to the Biennial Conservation Plan for more detail on NEEA's forecast and savings calculation methodology. The Company discounted NEEA's savings forecast by 15-percent to account for forecasting uncertainties and NEEA's evolving attribution methodology.
7. For more detail on the planned evaluations, see the program detail sections in this Business Plan or Appendix 8 to the Biennial Conservation Plan.
8. Potential study update and analysis costs represent the costs necessary to prepare for the 2014-2023 ten-year conservation forecast and 2014-2015 biennial target. These costs are subject to change as new requirements become necessary.
9. Measure data documentation costs are placeholders while work continues to identify final cost estimates.
10. Residual administration related to prior program expense represents the ongoing management of the conservation loans associated with legacy loan programs i.e. Energy FinAnswer, Home Comfort, etc.
11. The biennial target for distribution efficiency is presented within the Biennial Conservation Potential report is as a savings range rather than a fixed point estimate.

Residential Program Details

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

Refrigerator Recycling (Schedule 107)

Years of Implementation

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

Program Description

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

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

Planned Program Changes

Deemed values for refrigerator, freezer and kit savings have been updated for the 2012 and 2013 period based on the latest Regional Technical Forum ("RTF") data and 2009 and 2010 impact evaluation results. Per unit refrigerator savings changed from 1,250 gross kWh to 723 gross kWh. Freezer savings also were lowered from 1,853 gross kWh per recycled freezer to 542 gross kWh. Relying on historical data of the ratio of refrigerators to freezers recycled, a weighted per unit deemed savings amount of 687 kWh is assumed for all refrigerators or freezers recycled through the program. Using current RTF data for non-installation and operating hours, kit savings, which include two 13W CFLs, were lowered from 72 gross kWh per kit to 23 gross kWh per kit. The Company is investigating adding low flow showerheads to kits distributed to homes with electric water heating; savings from showerheads associated with this program are not reflected in the Table 1 savings assumptions.

Evaluation Update

Last Evaluation Report:

Program Years
2009-2010

Evaluation Report Date
January 6, 2012

Completed by
The Cadmus Group

Future Evaluation Report(s):

Program Years
2011-2012

Evaluation Report Date
By Year-end 2013

To be Completed by
The Cadmus Group

Program Details

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

PACIFIC POWER & LIGHT COMPANY

WN U-75

Original Sheet No. 107.1

**Schedule 107
RESIDENTIAL REFRIGERATOR RECYCLING PROGRAM – RESIDENTIAL
SERVICE OPTIONAL FOR QUALIFYING CUSTOMERS**

PURPOSE:

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

AVAILABLE:

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

APPLICABLE:

To residential customers and landlords with residential units in all service territory served by The Company in Washington.

CUSTOMER PARTICIPATION:

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

DESCRIPTION:

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

QUALIFYING EQUIPMENT:

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

PROVISIONS OF SERVICE:

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

Incentives are also available to landlords who own the appliances used in rental properties in The Company's Washington service territory where their tenant is billed on a residential schedule. Landlords may receive incentives on a maximum of two appliances per unit.

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

RULES AND REGULATIONS:

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

Issued: May 13, 2011
Advice No. 11-01

Effective: June 13, 2011

Issued By Pacific Power & Light Company

By: Andrea Kelly Andrea L. Kelly

Title: Vice President, Regulation

Home Energy Savings (Schedule 118)

Years of Implementation

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

Program Description

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

Measures eligible for incentives include clothes washers, clothes washer recycling, refrigerators, water heaters, dishwashers, lighting, heating and cooling equipment, insulation and windows. In addition, the program includes a Builder Option Package as well as stand-alone measures for new homes. Program changes were made in April 2012 to improve participation, comply with code and standard changes, align incentives with revised measure costs and savings estimates, and improve cost effectiveness. Program changes included adding new measures freezers, heat pump water heaters, portable evaporative coolers, LEDs, ductless heat pumps and duct sealing combined with duct insulation. Measures eliminated from the program include room air conditioner recycling, ceiling fans, central air conditioner sizing and central air conditioner tune-ups.

Incentives are provided in two ways: post-purchase delivery to the customer for the majority of measures and through a manufacturer buy-down for CFLs and LEDs. Buy-downs result in lower retail prices for customers at the point of purchase as opposed to post-purchase incentives that customers must submit an application to receive.

Evaluation Update

Last Evaluation Report:

Program Years
2009-2010

Evaluation Report Date
January 13, 2012

Completed by
The Cadmus Group

Future Evaluation Report(s):

Program Years
2011-2012

Evaluation Report Date
By Year-end 2013

To be Completed by
The Cadmus Group

Program Details

General program details are contained in the program tariff; additional program detail is available on the program website. Any changes to the details included in the program tariff must be filed and approved by the Commission prior to becoming effective. In addition, measure level program details are managed outside of the program tariff. The program tariff and excerpt, provided below, from the

advice letter in Docket UE-061297, filed August 11, 2006, describe the information managed outside of the tariff and the process for making program changes.

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

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

Program details, including specific measures, incentives, and eligibility requirements are posted on the Company's website at www.pacificpower.net/wattsmart. Program information from the tariff is as follows:

Washington Home Energy Savings

Definitions

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

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

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

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

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

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

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

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

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

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

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

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

New Home: A newly constructed residence.

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

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

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

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

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

U-Factor: Measures the rate of heat transfer and indicates how well the window insulates. U-factor values generally range from 0.25 to 1.25 and are measured in Btu/h·ft²·°F. The lower the U-factor, the better the window insulates.

Incentives

Home Energy Savings Incentive Table

Measure	Qualifications	Customer Incentive	Mid-Market Incentive
Appliances			
Clothes Washers	MEF ≥ 2.46 & WF ≤ 4.0	\$50	\$0
Clothes Washer Recycling	Requires recycling documentation and requires customer to submit incentive application for a new qualified clothes washer	\$0	\$25
Dishwashers	CEE Tier 1 for standard models, Compact dishwasher models are not qualified	\$20	\$0
Refrigerators	CEE Tier 2 and above	\$35	\$0
Electric Water Heaters	40-49 gallon and ≥ EF 0.94; 50-65 gallon and ≥ EF 0.95; 66 gallon+ and ≥ EF 0.93	\$75	\$50
Evaporative Coolers (permanently installed)	Minimum 3,500 CFM, must be the primary cooling source	\$150	\$100
Evaporative Coolers (portable)	Minimum 2,000 CFM	\$100	\$0
Room Air Conditioner	ENERGY STAR qualified	\$25	\$0
Freezer	ENERGY STAR qualified	\$20	\$0
Heat Pump Water Heater	Northern Climate Specification tier	\$150	\$100

Measure	Qualifications	Customer Incentive	Mid-Market Incentive
Lighting			
CFLs-General Purpose (Spiral)	ENERGY STAR qualified	\$0	Maximum not-to-exceed price of \$2.50 at selected retailers; Maximum incentive of \$1.50
CFLs-Specialty	ENERGY STAR qualified	\$0	Maximum not-to-exceed price of \$6.00- \$14.00 at selected retailers; Maximum incentive of \$1.75-\$3.50
LED Bulbs	ENERGY STAR qualified	\$0	Maximum incentive of \$14.00 for bulbs only
Fixtures	ENERGY STAR qualified, including LED products; torchiere and portable products are not qualified	\$20	\$0
*All bulb incentives are buy downs paid to manufacturers and retailers.			
HVAC			
All HVAC work must be completed by a Program Participating or Program Qualified Contractor.			
CAC - 15+SEER/ 12.5+EER and TXV	Equipment must be 15+ SEER and 12.5 EER and have a field-installed Thermal Expansion Valve (TXV).	\$250	\$25
CAC Best Practice Installation	The equipment must be a minimum of 13 SEER and meet airflow and refrigerant requirements of 350 CFM/ton of airflow, and refrigerant charge within +/- 3 degrees of target subcooling	\$50	\$75
Heat Pump Tune-up	Equipment must have airflow of 350 CFM/ton, and refrigerant charge within +/- 3 degrees sub cooling, or +/- 5 degrees super heat	\$100	\$25
Duct Sealing and Insulation	Pre-existing insulation levels must be nonexistent, or R-2 or less. Minimum installation of R-8 to ducts in unconditioned space; both services must be performed at the same time with insulation installed after the ducts are sealed; homes must have a central air conditioner, heat pump or electric heating system serving 80 percent of the floor area	\$100 for electrically cooled homes; \$325 for electrically heated homes	\$50
Ductless Heat Pump (Single-head)	New heat pump must be 9+ HSPF. Unit must replace electric resistant heat or electric forced air. Single-head heat pump must employ an inverter driven outdoor compressor unit and a variable speed fan or indoor blower, and be fully ductless for existing homes only	\$750	\$50

Measure	Qualifications	Customer Incentive	Mid-Market Incentive
Heat Pump Upgrade	For upgrade of existing heat pump to new high efficiency heat pump. New heat pump must be 9.5+ HSPF and 16+ SEER with a Thermal Expansion Valve (TXV)	\$500	\$50
Heat Pump Conversion	For replacement of existing electric resistance or electric furnace with new high efficiency heat pump. New heat pump must be 9.5+ HSPF and 16+ SEER and have a Thermal Expansion Valve (TXV)	\$600	\$50
Heat Pump Best Practice Installation	The equipment must be a minimum of 7.7 HSPF and meet airflow and refrigerant requirements of 350 CFM/ton of airflow, and refrigerant charge within +/- 3 degrees of target sub cooling	\$75	\$75
Weatherization			
For Insulation – Floor, homes must be heated with electric heating serving at least 80% of conditioned floor area in order to qualify.			
For Windows and Insulation – Attic and Wall, homes must have electric heating and/or ducted unitary air conditioning serving at least 80% of conditioned floor area in order to qualify.			
Insulation - Attic	Pre-existing condition must be R-20 or less. Final insulation level must be at least R-49. Electrically cooled homes must have central air conditioning serving 80 percent of the conditioned floor area. See additional installation requirements on program website.	\$0.15/sf. for electrically cooled home; \$0.30/sf. for electrically heated home	\$0/sf.
Insulation - Floor	Pre-existing condition must be R-18 or less. Final insulation level must be at least R-30. Electrically heated home only. See additional installation requirements on program website.	\$0.45/sf. for electrically heated home	\$0/sf.
Insulation - Wall	Pre-existing condition must be R-10 or less. Install increment of R-11 or fill cavity. See additional installation requirements on program website.	\$0.35/sf.	\$0/sf.
Windows	Tier 1: U-factor of 0.30 or lower. Electrically heated home only; Tier 2: U-factor of 0.20 or lower with a SHGC of 0.35; See additional installation requirements on program website.	Tier 1: \$0.75/sf.; Tier 2: \$1.00/sf. for electrically cooled home, \$2.50/sf. for electrically heated home	\$0/sf.
New Homes			
For New Homes Insulation – Attic, homes must be heated with electric heating at least 80% of conditioned floor area in order to qualify.			
For New Homes Windows, homes must have electric heating and/or ducted unitary air conditioning serving at least 80% of conditioned floor area in order to qualify.			
New Homes ENERGY STAR Builder Option Package (BOP)	All requirements of the heat pump path must be met to qualify for the Northwest ENERGY STAR Homes Washington Program certification. Verification is required and will be performed by a Northwest ENERGY STAR Homes verifier	\$1,000	\$0

Measure	Qualifications	Customer Incentive	Mid-Market Incentive
New Homes Dishwashers	CEE Tier 1 for standard models, Compact models are not qualified	\$20	\$0
New Homes Refrigerators	CEE Tier 2 and above	\$35	\$0
New Homes Heat Pump Water Heater	ENERGY STAR qualified	\$250	\$0
New Homes CFLs	ENERGY STAR qualified CFL bulbs installed in at least 80 percent of the available home's light sockets	\$25	\$0
New Homes Central Air Conditioner	Equipment must be 18+ SEER and have a Thermal Expansion Valve (TXV). Must be installed by a participating and licensed HVAC contractor	\$275	\$0
New Homes Heat Pump	New heat pump must be 9.5+ HSPF and 16+ SEER with a Thermal Expansion Valve (TXV). Must be installed by a participating and licensed HVAC contractor. See additional installation requirements on program website.	\$325	\$0
New Homes Insulation - Attic	Install R-60 or greater. Electrically heated home only	\$0.05/sf. for electrically heated home	\$0
New Homes Windows	Install windows with a U-Factor of 0.20 or lower with a SHGC of 0.35	\$0.75/sf. for electrically cooled home; \$1.00/sf. for electrically heated home	\$0
New Homes Ductless Heat Pump (Multi-head)	New heat pump must be 9.5+ HSPF. Multi-head heat pump must employ an inverter driven outdoor compressor unit and a variable speed fan or indoor blower for new homes only	\$800	\$0

PACIFIC POWER & LIGHT COMPANY

WN U-75

Original Sheet No. 118.1

**Schedule 118
HOME ENERGY SAVINGS INCENTIVE PROGRAM**

PURPOSE:

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

APPLICABLE:

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

CUSTOMER PARTICIPATION:

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

DESCRIPTION:

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

QUALIFYING EQUIPMENT OR SERVICES:

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

PROGRAM ADMINISTRATOR:

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

PROVISIONS OF SERVICE:

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

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PACIFIC POWER & LIGHT COMPANY

WN U-75

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**Schedule 118
HOME ENERGY SAVINGS INCENTIVE PROGRAM**

PROVISIONS OF SERVICE: (continued)

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

ELECTRIC SERVICE REGULATIONS:

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

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Home Energy Reports

Years of Implementation

First introduced to the demand side advisory group in March 2012, the Home Energy Reports pilot is an addition to this business plan update. The program is scheduled to begin in August 2012.

Pilot Description

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

Evaluation Update

Future Evaluation Report(s):

Program Years	Evaluation Report Date	To be Completed by
2012-2013	Mid-2014	To be Determined
2014-2015	Mid-2016	To be Determined

Pilot Details

The pilot will cover a 41-month period to assess the performance of the program in the Company's service territory. Reports will be provided to approximately 13,500 customers, which possibly could degrade (due opt-out/move-out rate) over the pilot's initial term.

The customer population will be made up of customers with an annual average electrical energy usage of 20,000 kilowatt hours. To achieve this, the upper bound annual average will be approximately 29,000 kilowatt hours and the lower bound annual average 13,500 kilowatt hours. As degradation occurs over the pilot period, the average usage of the population may also change. The change in average usage will be measured and verified in the pilot evaluation.

Reports will be mailed monthly for the initial three months to build up program awareness and then moved to a bi-monthly schedule through the remainder of the pilot. Each participating customer would receive 21 reports over the term of the pilot. Customers may also opt-out of the mailed paper copy of the report and request an electronic version delivered via email. Participating customers will also have access to a web portal containing the same information about their usage and past usage. The web portal will have other functions such as a home energy audit tool and suggestions to improve energy conservation and efficiency of their home.

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

Low Income Residential Program Details

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

Low Income Weatherization (Schedule 114)

Years of Implementation

The Low Income Weatherization program has been in effect since the mid-1980's and has successfully assisted in the weatherization of over 6,800 homes in the Company's Washington state territory.

Program Description

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

Planned Program Changes

No program changes are planned at this time, however PacifiCorp expects agency billings to increase as the funding made available in the state through the American Recovery and Reinvestment Act of 2009 ends as of December 31, 2011. This is reflected in the higher spending and savings forecasts in the 2012-2013 Business Plan than were assumed and realized in the 2010-2011 Business Plan and actual program performance.

Evaluation Update

The most recent program changes proposed in Advice 08-07 were approved effective March 1, 2009. In Advice 08-07, the Company requested that the program changes be in place for at least three and one half years before any additional changes are considered. This will allow the program to be in effect for two years before collecting post-consumption data in the third year.

Last Evaluation Report:

Program Years	Evaluation Report Date	Completed by
July 1, 2003 – June 30, 2005	January 19, 2007	Quantec, LLC

Future Evaluation Report(s):

Program Years	Evaluation Report Date	To be Completed by
March 1, 2009 - March 1, 2011	August 1, 2012	The Cadmus Group

Program Details

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

PACIFIC POWER & LIGHT COMPANY

WN U-75

Original Sheet No. 114.1

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

PURPOSE:

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

APPLICABLE:

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

DESCRIPTION:

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

DEFINITIONS:

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

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

DEFINITIONS: (Continued)

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

FINANCIAL ASSISTANCE:

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

(continued)

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

ENERGY EFFICIENT MEASURES:

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

Major Measures:

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

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

Supplemental Measures:

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

(continued)

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

ENERGY EFFICIENT MEASURES: (continued)

Supplemental Measures:

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

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

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

RULES AND REGULATIONS:

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

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Non-Residential Program Details

The Company offers FinAnswer Express (Schedule 115) and Energy FinAnswer (Schedule 125) as non-residential programs in the state of Washington. The two programs work together to provide a comprehensive set of financial and service incentives to assist the Company's non-residential customers in improving the energy efficiency at their facilities.

FinAnswer Express (Schedule 115)

Years of Implementation

This program began as Small Retrofit Incentive and Retrofit Incentive (Schedules 115 and 116) in November 2000. In May 2004 the program was improved and renamed FinAnswer Express (Schedule 115).

Program Description

The FinAnswer Express program provides prescriptive incentives to commercial, industrial and agricultural customers for typical lighting, HVAC, motor, building envelope, food service, appliances, irrigation, dairy/farm equipment, compressed air and other retrofits or new installations. The program includes an expedited energy analysis and incentives based on the equipment installed (\$/fixture, \$/motor, \$/ton, etc.). It includes a provision for custom incentives for energy efficiency measures that are not listed in the program incentive tables. The program is marketed primarily via trade allies, PacifiCorp staff, and a combination of other Company outreach efforts including radio advertising.

Evaluation Update

In October 2009, the Company initiated process and impact evaluations for the FinAnswer Express program in Washington for program years 2005-2008.

In 2012, the Company will initiate a process and impact evaluation for the FinAnswer Express program in Washington for program years 2009-2011.

Last Evaluation Report:

Program Years	Evaluation Report Date	Completed by
2005-2008	December 6, 2010	The Cadmus Group

Future Evaluation Report(s):

Program Years	Evaluation Report Date	To be Completed by
2009-2011	By Year-end 2012	Navigant Consulting Inc.
2012-2013	By Year-end 2014	Navigant Consulting Inc.

Program Details

Program details for this program are contained in the program tariff. Any changes to the details included in the program tariff must be filed and approved by the Commission prior to becoming effective. In addition, there are program details managed outside of the program tariff. The program tariff and the text below from the Advice Letter 06-008 (Docket UE-061710), filed on November 8, 2006, describe the information that is managed outside of the tariff and the process for changes.

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

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

Program changes were made effective in February 2012 to improve participation, comply with code and standard changes, align incentives with revised measure costs and savings estimates, and improve cost effectiveness. Current information for the program incorporating the most recent changes can be found on the Company’s website at the following links and included in summary below.

Program Details	Website link
Incentive tables (retrofit) are included in the program brochure	http://www.pacificpower.net/content/dam/pacific_power/doc/Business/Save_Energy_Money/WA_FinAnswer_Express_Retrofits_Brochure_and_Incentive_Tables.pdf
Incentive tables (new construction/major renovation) are included in the program brochure	http://www.pacificpower.net/content/dam/pacific_power/doc/Business/Save_Energy_Money/WA_FinAnswer_Express_NCMR_Brochure_and_Incentive_Tables.pdf
Program definitions	http://www.pacificpower.net/content/dam/pacific_power/doc/Business/Save_Energy_Money/FinAnswer_Express_29.pdf
Custom incentive offering	http://www.pacificpower.net/content/dam/pacific_power/doc/Business/Save_Energy_Money/WA_FinAnswer_Express_Custom_Incentives.pdf

Washington FinAnswer Express

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 Energy Efficiency Incentive Agreement or approved Energy Efficiency Incentive Application.

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

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.

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 Washington Schedule 115 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.

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 incentive tables 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.

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

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

Incentive Caps

	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
Irrigation (see note)	None	No
Dairy/Farm Equipment	None	No
Compressed Air	None	No
Other Energy Efficiency Measures (see note)	None	No
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

Notes for Incentive Caps Table:

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.
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 Energy Efficiency Measures have a measure cost cap. See the Irrigation Equipment incentive table for details.
4. 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 \leq 32 Watts, Electronic ballast with Ballast Factor \leq 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.	\$21/Lamp Removed
	Relamp	Lamp wattage reduction \geq 3 Watts, No ballast retrofit	\$0.25/Lamp
	High Bay	4' CEE Qualified High Performance Lamp. Must replace T12HO, Incandescent, or HID in a high ceiling application	\$20/Lamp
T5 Fluorescent	Standard	4' Nominal Lamp \leq 28 Watts, Ballast Factor \leq 1.0,	\$5/Lamp
	Relamp	Lamp wattage reduction \geq 3 Watts, No ballast retrofit	\$0.25/Lamp
	High Bay	4' Nominal High Output Lamp	\$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 wattage	\$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

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 subject to the one-year payback cap.
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

Lighting Controls and Non-General Illuminance Lighting

Measure	Category	Eligibility Requirements	Incentive
Lighting Control	Occupancy Control	PIR, Dual Tech, or Integral Sensor	\$75/Sensor
	Daylighting Control	Must control fixtures with qualifying dimming ballast(s)	\$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

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	<p>1. The total connected interior lighting power for New Construction/Major Renovation projects must be 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 10% lower than common practice as determined by Pacific Power.</p> <p>2. Energy savings is subject to approval by Pacific Power</p>	\$0.08/kWh annual energy savings
Exterior Lighting	Induction Fixture	All Wattages, New Fixtures Only	\$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 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 minithe 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 (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	--
Package 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	--	--
Package 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	--	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)	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	--	CEE Tier 1	--
Heat Pumps, Water-Source (Heating Mode) - See Note 2	< 135,000 Btu/hr	68°F Entering Water	--	CEE Tier 1	--

Heat Pumps, Ground-Source or Groundwater-Source (Heating & Cooling Mode) - See Note 2	All sizes	77°F Entering Water	--	ENERGY STAR Qualified	--
Ground Source or Groundwater-Source Heat Pump Loop	All sizes	Open Loop	\$25/ton	--	--
		Closed Loop			

Notes for HVAC Equipment Incentive Table:

1. Equipment that meets or exceeds the efficiency requirements listed for the size category in the above table may qualify for the listed incentive. Equipment must meet all listed efficiency requirements to qualify for the listed incentives.
2. 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. 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, and AHRI Standard 310/380 for PTAC and PTHP units.
4. 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. 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. 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

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	(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	(See Note 3)
Room Air Conditioner	Residential (used in a business)		See Home Energy Savings program	See Note 5
365/366 day Programmable Thermostat	All sizes in portable classrooms with mechanical cooling	Must be installed in portable classroom unoccupied during summer months	365/366 day thermostatic setback capability	\$150/thermostat
Occupancy Based PTHP/PTAC control (Retrofit only)	All sizes with no prior occupancy based control	--	See Note 4	\$50/controller

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

CFM = Cubic Feet per Minute
 ISR = Industry Standard Rating
 IDEC = Indirect Direct Evaporative Cooling
 PTHP = Package Terminal Heat Pump
 PTAC = Package 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	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/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
Wall Insulation	--	Minimum increment of R-3.7 continuous insulation above code (See Note 5)	\$0.05/square foot
Windows (See Note 3, 4)	Site-Built	U-Factor \leq 0.30 and SHGC \leq 0.33 (Glazing Only Rating)	\$0.34/square foot
	Assembly	U-Factor \leq 0.30 and SHGC \leq 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 measures 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 (Electric Water Heating Only) (See Note 3)	Undercounter	ENERGY STAR Qualified	\$500
	Stationary Rack, Single Tank, Door Type	ENERGY STAR Qualified	\$1,000
	Single Tank Conveyor	ENERGY STAR Qualified	\$1,500
	Multiple Tank Conveyor	ENERGY STAR Qualified	\$2,000
Electric Insulated Holding Cabinet	Full Size – Tier 1	ENERGY STAR Qualified	\$300
	3/4 Size – Tier 1		\$250
	1/2 Size – Tier 1		\$200
	Full Size – Tier 2	Watts/cubic feet \leq 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 sizes – Tier 1	ENERGY STAR Qualified	\$750
	3-, 4-, 5- and 6-pan sizes – Tier 2	Heavy Load Efficiency \geq 65%, Idle Energy Rate \leq 0.23 kW (See Note 4)	\$840
Electric Convection Oven	--	\geq 70% cooking efficiency (See Note 4)	\$350
Electric Griddle	Tier 1	ENERGY STAR Tier 1 Qualified	\$250
	Tier 2	ENERGY STAR Tier 2 Qualified	\$350
Electric Combination Oven	--	Heavy Load Efficiency \geq 70%, Idle Energy Rate \leq 3.5 kW (See Note 4)	\$1,000
Electric Commercial Fryer	Tier 1	ENERGY STAR Qualified	\$200
	Tier 2	Cooking Efficiency \geq 86.6%, Idle Energy Rate \leq 772 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 \geq 500 lbs/day	ENERGY STAR Qualified	\$150
	Tier 2: Harvest Rate <500 lbs/day	CEE Tier 3 Qualified	\$250
	Tier 2: Harvest Rate \geq 500 lbs/day	CEE Tier 3 Qualified	\$400
Residential Refrigerator	Used in a business	See Home Energy Savings program	See Note 2
Commercial Glass Door Refrigerator	$0 < V < 15$	ENERGY STAR Qualified	\$100
	$15 \leq V < 30$		\$125
	$30 \leq V < 50$		\$150
	$50 \leq V$		\$175
	Chest Configuration		\$75
Commercial Glass Door	$0 < V < 15$	ENERGY STAR Qualified	\$300

Freezer	$15 \leq V < 30$		\$325
	$30 \leq V < 50$		\$375
	$50 \leq V$		\$800
	Chest Configuration		\$100
Commercial Solid Door Refrigerator	$0 < V < 15$	ENERGY STAR Qualified	\$50
	$15 \leq V < 30$		\$75
	$30 \leq V < 50$		\$100
	$50 \leq V$		\$125
	Chest Configuration		\$75
Commercial Solid Door Freezer	$0 < V < 15$	ENERGY STAR Qualified	\$150
	$15 \leq V < 30$		\$175
	$30 \leq V < 50$		\$200
	$50 \leq V$		\$300
	Chest Configuration		\$150
High-Efficiency Refrigerated Beverage Vending Machine (See Note 5)	Class A	$MDEC = 0.055 \times V + 2.56$	\$150
	Class B	$MDEC = 0.073 \times V + 3.16$	
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

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. 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
		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

Irrigation Incentive 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, Spray-Type or Low-Pressure Sprinklers	Worn rotating, spray-type, low-pressure, or impact sprinklers	New rotating, spray-type, or low-pressure sprinklers	Must be same design flow or less	\$3.00 each (up to 70% of cost)
New or Rebuilt Impact Sprinklers	Worn or leaking impact sprinkler	New or rebuilt impact sprinkler	--	\$3.00 each (up to 70% of cost)
Sprinkler Nozzles	Existing worn nozzles	New brass or plastic nozzles	Must be same design flow or less	\$0.25 each
Flow Controlling Type Nozzles	Existing worn flow-controlling type nozzles	New flow-controlling type nozzles	Must be same design flow or less	\$1.50 each
Drains and Gaskets for Wheel Lines, Hand Lines, Pivots, Linears or Portable Main Lines	Worn and leaking drains and gaskets	New drains and gaskets (Also includes seals and riser caps (dome discs) for valve openers)	--	\$1.00 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
Repair Leaking Wheel Lines, Hand Lines or Portable Main Lines	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
New or Rebuilt Wheel-line Levelers	Worn or faulty wheel-line leveler	New or rebuilt wheel-line leveler	--	\$0.75 each
Center Pivot Base Boot Gasket	Worn and leaking center pivot base boot gasket	New center pivot base boot gasket	--	\$80.00 each
Wheel-line Feed Hose	Worn or leaking wheel-line feed hose	New or rebuilt wheel-line feed hose	--	\$15.00 each
Wheel-line Hubs (for Thunderbird type wheel lines)	Worn or leaking hub	New wheel-line hub	--	\$12.00 each
Irrigation Pump VFD	--	Add VFD to existing irrigation pump motor	--	See Note 4

Notes for Irrigation Incentive Table:

1. Irrigation measures that meet the replacement requirements listed in the above table may qualify for the listed incentive. Except for the Irrigation Pump VFD measure, 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. 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 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 available for retrofit only. Replacement of existing automatic milker takeoffs are not eligible for incentives, except where Pacific Power permits as 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
Circulating Fans (See Note 2)	12-23" Diameter	Fans must achieve an efficiency level of 11 cfm/W	\$25/fan
	24-35" Diameter	Fans must achieve an efficiency level of 18 cfm/W	\$35/fan
	36-47" Diameter	Fans must achieve an efficiency level of 18 cfm/W	\$50/fan
	≥48" Diameter	Fans must achieve an efficiency level of 25 cfm/W	\$75/fan
Heat Reclaimers	--	Heat reclaimer must use waste heat from refrigeration compressor to heat water. Customer must use electricity to heat water.	\$220/condenser kW
High-efficiency Ventilation Systems (See Note 2)	12-23" Diameter	Fans must achieve an efficiency level of 11 cfm/W	\$45/fan
	24-35" Diameter	Fans must achieve an efficiency level of 13 cfm/W	\$75/fan
	36-47" Diameter	Fans must achieve an efficiency level of 17 cfm/W	\$125/fan
	≥48" Diameter	Fans 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.	See Note 3
Programmable Ventilation Controllers	--	The equipment must control ventilation fans based on temperature or environmental settings.	\$20/fan controlled
Variable Frequency Drives for Dairy Vacuum Pumps (Retrofit Only)	--	The equipment must vary the motor speed in accordance with the air flow needs of the vacuum system. Incentive available for retrofit only for systems without an existing VFD.	\$165/hp

Notes for Dairy/Farm 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 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 eligible for incentives in both new construction and retrofit projects.

AMCA = Air Movement & Control Association International, Inc.

ANSI = American National Standards Institute

VFD = Variable Frequency Drive

Compressed Air Incentive Table

Equipment Category	Replace	With	Limitations	Customer Incentive
Low-Pressure Drop Filters	Standard Coalescing Filter	Rated Low-Pressure Drop Filter where: 1. Pressure Loss at Rated Flow is \leq 1psi when new and \leq 3psi at element change 2. Particulate Filtration is 100% at \geq 3.0 microns and 99.98% at 0.1 to 3.0 microns, with \leq 5 ppm liquid carryover 3. Filter is of deep-bed "mist eliminator" style, with element life \geq 5 years 4. Rated capacity of filter is \leq 500 scfm	1. Compressor must be \geq 25 HP and \leq 75 HP	\$0.80/scfm
Receiver Capacity Addition	Limited or no Receiver Capacity (\leq 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 \leq 75 horsepower 2. Trim compressor must use load/unload controls without inlet modulation or on/off control. 3. Systems with a VFD or using variable displacement control are not eligible.	\$1.50/gallon above 2 gallons per scfm
Refrigerated Cycling Dryers	Non-Cycling Refrigerated Dryer	Cycling Refrigerated Dryer	1. Compressor system size \leq 75 horsepower 2. Rated dryer capacity must be \leq 500 scfm 3. Dryer must operate exclusively in cycling mode and cannot be equipped with the ability to select between cycling and non-cycling mode 4. Refrigeration compressor must cycle off during periods of reduced demand	\$1.50/scfm
VFD Controlled Compressor	Compressor 75 hp or Smaller	\leq 75 hp single operating VFD-Controlled Oil-Injected Screw Compressor	1. Single operating compressor \leq 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 See Note 3
Zero Loss Condensate Drains	Fixed Timer Drain	Zero Loss Condensate Drain (See Note 4)	Drain is designed to function without release of compressed air into the atmosphere. (No maximum compressor size)	\$90 each
Outside Air Intake	Compressor intake drawing air from compressor room	\leq 75 hp compressor where permanent ductwork between compressor air intake and outdoors	1. Compressor system size \leq 75 HP. 2. Ductwork must meet manufacturer's specifications, which may include: (a) \leq 0.25" W.C. pressure loss at rated flow, and (b) allow use of compressor room air during extremely cold conditions	\$6.00/hp

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.
3. Incentives for VFD-controlled compressors are calculated based on compressor size and other system parameters at \$0.15/kWh annual energy savings. Energy savings subject to approval by Pacific Power.
4. Zero Loss Condensate Drains purchased as requirements for other compressed air Energy Efficiency Measures are eligible for incentives.

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 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	\$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.

**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)

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**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.

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Energy FinAnswer (Schedule 125)

Years of Implementation

The Energy FinAnswer program was originally implemented in the 1990s as an energy efficiency improvement financing program. Customer loan payments were calculated to equal expected monthly savings from the energy efficiency improvements made until the loan was satisfied. The program was modified to an incentive based program, its current incarnation, under Schedule 125 in October 2000.²

Program Description

The Energy FinAnswer program serves commercial, industrial, and agricultural customers for retrofits and new construction. The program includes a vendor neutral investment grade energy analysis and cash incentives equal to \$0.15 per kWh of annual energy savings plus \$50 per kW of average monthly demand savings (up to 60 percent of project costs).³ There is a cap to prevent incentives from bringing the payback for a project below one year and a cap for lighting energy savings per project since lighting-only projects are included in FinAnswer Express. The program includes a post-installation verification and may require commissioning of dynamic measures. Commissioning requirements are provided as a component of the energy analysis. There are design assistance services and special incentives available for new construction and major renovation projects where energy code applies. The program is marketed primarily via PacifiCorp account managers, trade allies, Energy FinAnswer consultants and project staff. Other leads come via advertising in business publications, company newsletters, word-of-mouth, past participants returning for additional projects and a combination of other Company outreach efforts.

Planned Program Changes

A market characterization study is underway to inform the next set of planned changes. Planned changes include potentially modifying the project cost cap for incentives as well as adding a program component to address the time constraint barrier faced by customers who often find they lack sufficient internal staffing resources to manage their energy efficiency projects. The planned changes will be provided to the DSM Advisory Group in 2012 for comment and the Business Plan will be updated concurrent with or immediately following Commission approval of changes.

Evaluation Update

In 2011, the Company initiated process and impact evaluations for the Energy FinAnswer program in Washington for program years 2009-2010 available by year-end 2012.

Last Evaluation Report:

Program Years	Evaluation Report Date	Completed by
2005 – 2008	October 12, 2010	The Cadmus Group

Future Evaluation Report(s):

Program Years	Evaluation Report Date	To be Completed by
2009-2011	By Year-end 2012	Navigant Consulting Inc.
2012-2013	By Year-end 2014	Navigant Consulting Inc.

² Prior to October 2000, the program offered energy efficiency funding repaid with interest on the customer's electric bill.

³ Note there are no incentive caps for new construction design assistance projects.

Program Details

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

**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)

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**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)

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**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)

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

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	Yes	Yes	No	No
Owner/Customer Energy Efficiency Incentive caps applied to the Energy Efficiency Project				
60 % of project	No	Yes	Yes	Yes
1 yr simple	No	Yes	Yes	Yes
Lighting savings	No	50%	50%	50%
Energy savings	Must exceed code by	Qualifying equipment	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)

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**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.

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)

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**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.

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**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.

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Other Program Details and Sources of Conservation

Other program details include the Energy Education in Schools program (Schedule 113) as a general education program during the 2011-12 school year, with no savings being counted toward the biennial target. The Energy Education in Schools program will no longer be available and the associated tariff will be cancelled after the conclusion of the 2011-12 school year. Other sources of energy efficiency include the energy savings produced through the efforts of Northwest Energy Efficiency Alliance (“NEEA”), an external group partly funded through Company dollars. The Company has also undertaken efforts to improve the efficiency of its Washington based distribution system through voltage optimization (“VO”) and improve the energy efficiency at Company owned non-hydro generation facilities identified as serving the Company’s Washington territory.

Energy Education in Schools (Schedule 113)

Years of Implementation

The Energy Education in Schools program was originally proposed by the Company in 2002 with Advice No. 02-08. The Commission approved the program with an effective date of April 1, 2003. Effective June 30, 2012, the Energy Education in Schools program has been cancelled.

Northwest Energy Efficiency Alliance

Years of Implementation

The Northwest Energy Efficiency Alliance has been serving the Northwest region of Oregon, Washington, Idaho, and Montana since 1997.

Program Description

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

Program Details

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

For the 2010-2014 funding cycle, NEEA and the region are striving to achieve 200 aMW of total regional savings. PacifiCorp's Washington funding of NEEA's work represents 3.04 percent of the region's funding; approximately \$5.7 million over the five year period with expected savings attributed to PacifiCorp's Washington service area of roughly 6 aMW.

For specific information on PacifiCorp's forecasted savings attributed to NEEA for the 2012-2013 biennial period (shown in Table 1 of this Business Plan), see Appendix 9 to the Company 2012-2013 Biennial Conservation Plan.

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

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

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

- Initiatives: http://neea.org/news_media/mediaroom/neea_current_initiatives.pdf

- Business Plan: http://neea.org/participate/docs/NEEA_BusinessPlan_Board-Approved.pdf
- Strategic Plan: http://neea.org/participate/docs/NEEAstrategicPlan_FinalVersion.pdf

Distribution Efficiency

Years of Implementation

The Company began a detailed study of the potential energy savings from distribution efficiency (“DEI”) in 2010. Implementation of identified projects will begin under a pilot program in 2012. The Company currently anticipates the complete acquisition of cost effective DEI energy savings in its Washington service territory by 2018.

For the 2012-13 biennium, voltage optimization projects will be managed through a pilot. The Company will endeavor to measure and verify total energy savings by using the simplified VO measurement and verification protocol approved by the Northwest Council’s Regional Technical Forum (“RTF”). Total project costs will also be tracked in an effort to corroborate cost estimates and determine actual cost effectiveness. The Company will use the results of the pilot to adjust its ten-year forecast as appropriate.

Program Description

The Company’s distribution efficiency effort is comprised of two elements, improving distribution system efficiency and lowering the average system voltage. Together these are referred to as voltage optimization or VO. Projects for 2012 include phase balancing and reactive power flow optimization on two circuits in Yakima and two circuits in Walla Walla. Additional projects for 2013 are expected to be similar in nature; the most effective scope and location of these improvements will be determined during the second half of 2012.

Program Details

The following table identifies the predicted distribution efficiency projects in the 2012-13 biennium, together with some project details. The VO values shown are those included in the Company’s 2011 *Distribution System Efficiency and Voltage Optimization Study*. The detailed design estimates completed for these projects in 2012 will provide more accurate cost estimates.

Project	Benefit Cost Ratio	Life Cycle Levelized Cost (\$/ MWh)	aMW Savings	Preliminary Scope Costs	Percent Capital	Description of Work
Mill Creek 5W116 VO	7.72	\$14.20	0.0727	\$58,178	81%	Correct low voltage issues after voltage is reduced. Measure and verify.
Mill Creek 5W127 VO	1.58	\$69.50	0.0214	\$83,645	63%	Approximately six phase balance assignments, one new capacitor, and correct low voltage issues after voltage is reduced. Measure and verify.
Clinton 5Y608 VO	2.40	\$45.70	0.0286	\$73,614	80%	Approximately one phase balance assignment, correct low voltage issues after voltage is reduced. Measure and verify.
Clinton 5Y610 VO	3.22	\$34.10	0.0278	\$53,438	84%	Approximately one phase balance assignment and correct low voltage issues after voltage is reduced. Measure and

						verify.
2013 VO	> 1	< 105.91	0.0235	\$750,000	80%	Estimates are from the study but additional study is required on adjacent circuits before a scope can be defined.
Total			0.346	\$1,018,875		

For specific information on PacifiCorp's forecasted savings attributed to VO for the 2012-13 biennial period, see the Company's Biennial Conservation Plan.

Production Efficiency

Years of Implementation

The Company began a detailed study of the potential energy savings from production efficiency (“PE”) in 2011; with the initial implementation of identified projects beginning in 2012. The Company currently anticipates the complete acquisition of cost effective PE energy savings in its Washington service territory by 2014.

Program Description

In 2011, the Company began studying potential energy efficiency upgrades to the electrical systems at the thermal and wind power production facilities. PacifiCorp (Company) fully owns one thermal plant that provides power to Washington State as well as four wind projects. The Company jointly owns two additional thermal plants that also provide power to Washington. All facilities were analyzed as a part of the potential study.

Program Details

Project work will begin in 2012 starting at the Chehalis power plant for the current biennium. Also in the 2012-13 biennium the Company will work with joint owners at Hermiston and Jim Bridger to get identified projects approved for construction in the 2014-15 biennium. At the Goodnoe Hills wind project, the study showed no significant efficiency improvements available. The remaining wind projects will receive site specific studies in the coming biennium.

The following table details the specific projects identified for completion in this biennium.

Description	2012 MWh/yr	2013 MWh/yr	Net Present Benefit (\$)	Total Resource Cost Test
Lighting		246	\$161,292	1.15
Electric Heat Trace Runtime	39		\$25,244	1.47
Electric Heater Thermostat	37		\$24,334	33.80
Compressed Air Dryer Controls	29		\$21,969	5.77

Customer Outreach and Communications

Years of Implementation

In 2011, the Company implemented *wattsmart*, the demand-side management communication and outreach campaign. The *wattsmart* program was put into action to meet the program design principle conditions of Order 2 in Docket No. UE 100170 specific to energy efficiency program outreach.

Program Description

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

Program Details

Provided in the table below is a summary of the media channels that were used to deliver the *wattsmart* campaign in 2011.

Communication Channel	Value to Communication Portfolio
Television	Advertisements were rotated, both 30-second and 15-second TV spots, with an average of 300 television placements each week from May through July 2011 and October through December 2011. Stations on which campaign spots were aired include: KAPP (ABC), KIMA (CBS), KNDO (NBC), KUNV(UNIV) and Charter (Cable). Estimated reach 93.6%, estimated frequency 21.96.
Radio	An average of 80 radio spots per week from May through July 2011 and October through December 2011. Radio stations on which campaign spots were aired include: KARY-FM (Oldies), KATS-FM (Classic Rock), KDBL-FM (Country), KFFM-FM (Contemporary Hits), KHHK-FM (Rhythmic CHR) KRSE-FM (Modern), KXDD-FM (Country), KZTA-FW (Mexican Regional) Estimated reach 78.9%, estimated frequency 9.5.
Newspaper	Newspaper placements included: Dayton Chronicle, The East Washingtonian, La Voz Hispanic News, The Waitsburg Times, Walla Walla Union Bulletin and Yakima Herald-Republic.
Web Site: Pacificpower.net/wattsmart Bewattsmart.com	Pacific Power's <i>wattsmart</i> website, pacificpower.net/wattsmart, and promotional URL bewattsmart.com link directly to the energy efficiency landing page and fulfill the campaign's call-to-action to engage customers in the Company's energy efficiency programs. These sites further support all other forms of communications by serving as a source for detailed information regarding the company's program and other energy efficiency opportunities.
Twitter	Other interactive campaign elements like online media and social media will work with traditional media to enhance the campaign by driving traffic to the program websites. Build awareness for early adopters regarding energy efficiency tips and post Tweets on a weekly basis.
Facebook	Facebook is used to build awareness for early adopters regarding energy efficiency tips and a location to share information. Information and tips posted three times a week.
Other Online	Supports the broadcast and print media while also increasing awareness for early adopters who are online and are likely to be receptive to energy saving messaging. Some of these uses include banner ads on local sites, blogs, behavioral ad targeting, and pay-per-click ad placements.
Magazine:	Content targeting business and metro area customers. Business publications included: Yakima Business Journal.

The objectives of the communications and outreach campaign in the 2012-13 biennium will be to increase awareness of the availability of energy efficiency programs, cash incentives and resources

in order to boost participation and achieve demand reduction targets in Washington and promote customer conservation and increase participation and savings through Pacific Power *wattsmart* demand-side management programs.

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

Communication tactics will implement an integrated advertising campaign featuring *wattsmart* energy efficiency messaging in the Yakima and Walla Walla market areas targeting residential, low-income and small/mid-size business customers. Program plans will utilize seasonal messaging of 15-second and 30-second TV spots developed in 2011 (including a Spanish language component), press releases, web/social media and working with third party marketers to incorporate *wattsmart* messaging in their communications to provide a consistent customer experience.

Cost Effectiveness

Cost effectiveness of individual programs proposed for the 2012-3 biennium period described below is assessed based on forecasted expenditures and energy savings.

Cost effectiveness is provided at the:

- Individual program⁴ or initiative⁵ level
- Residential energy efficiency portfolio (programs and NEEA) level
- Non-residential energy efficiency program portfolio level
- Residential energy efficiency portfolio (programs and NEEA) level with non-energy benefits level included

Forecasted energy savings utilized in this analysis are gross savings and the impact of line losses is indicated with an “at site” or “at generation” designation. Line losses for retail customer programs are based on the Company’s 2007 line loss study. The line loss impact for the distribution efficiency effort is specific to the affected portion of the distribution system and was calculated by the Pacific Power engineering group. All cost effectiveness calculations utilize a Net-to-gross ratio of 1.0 consistent with the Council’s methodology. The energy savings attributed to each program are shaped according to specific end-use savings (the hourly calculation of when energy is used for the various end-use measures from which the savings are derived). Program costs and the value of the energy savings are then compared on a present value basis with the Company’s 2011 Integrated Resource Plan (“IRP”) calculated decrement values for demand-side resource savings and avoided capacity investments. The energy efficiency resource decrement values are fully shaped to represent the 8,760 hourly values that exist within a calendar year. By matching the hourly savings with the hourly avoided costs, both energy and capacity impacts of energy efficiency savings are recognized.

Costs utilized in the cost effectiveness analysis for distribution efficiency (“DEI”) and production efficiency in non-hydro generating facilities are estimated implementation costs for the projects, excluding forecasted expenditures for specific analysis, engineering studies, reporting, results tracking and evaluation expenses associated with I-937 compliance. Study related costs (e.g. DEI, production efficiency, measure data and the potential study update), required by I-937 are considered initiative compliance costs rather than program costs and will not be included in the determination of the cost-effectiveness at either the program or portfolio levels.

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

Additional information for the cost effectiveness assessment of each program, initiative and the portfolios are available on pages 71-89 of this Appendix.

⁴ Low Income Weatherization, Refrigerator Recycling, Home Energy Savings, Energy FinAnswer, FinAnswer Express

⁵ NEEA, Production Efficiency, Distribution Efficiency

Date: January 27, 2012
To: Don Jones, Jr.
From: Aaron Jenniges and Niko Drake-McLaughlin
Re: Washington Low Income Weatherization 2012-2013 Cost-Effectiveness

The tables below present the cost-effectiveness findings of the Washington Low Income Weatherization program based on 2012 and 2013 costs and savings estimates provided by PacifiCorp in a spreadsheet entitled “Copy of CE inputs for Table 1 business plan 011312”. The analysis assumed a discount rate of 7.17%, based on the 2011 PacifiCorp Integrated Resource Plan.

Cost-effectiveness was tested using the IRP 49% west residential whole house load factor decrement. Table 1 lists modeling inputs.

The program is not cost-effective from the TRC, UCT, or RIM perspectives. The benefit/cost ratio for the RIM test is less than 1, indicating the program will have an upward influence on rates.

**Table 1: Low Income Weatherization
Inputs**

Parameter	Value
Discount Rate	7.17%
Line Loss	8.87%
Residential Energy Rate (\$/kWh) (base year 2010)	\$0.0767
Inflation Rate ⁶	1.8%

**Table 2: Low Income Weatherization
Program Costs**

	Program Expenses (Non-Incentives)	Incentives	Total Utility Costs
Low Income Weatherization	\$214,240	\$1,433,760	\$1,648,000

⁶ Used to escalate future year energy rates.

Table 3: Low Income Weatherization Savings

	Gross kWh Savings	Realization Rate	Adjusted Gross Savings	Net to Gross Percentage	Net kWh Savings	Measure Life
Low Income weatherization	540,960	100%	540,960	100%	540,960	30

Table 4: Low Income Weatherization Cost-Effectiveness

	West Res Whole House 49%			
	Costs	Benefits	Net Benefits	Benefit/Cost Ratio
Total Resource Cost Test (PTRC) + Conservation Adder	\$1,648,000	\$890,917	(\$757,083)	0.54
Total Resource Cost Test (TRC) No Adder	\$1,648,000	\$809,924	(\$838,076)	0.49
Utility Cost Test (UCT)	\$1,648,000	\$809,924	(\$838,076)	0.49
Rate Impact Test (RIM)	\$2,279,226	\$809,924	(\$1,469,302)	0.36
Participant Cost Test (PCT)	\$1,433,760	\$2,064,986	\$631,226	1.44

However, these results do not incorporate the non-energy benefits that were analyzed in the 2006 program evaluation, including the Program's impact on forced mobility, arrearages, and economic impacts. These benefits are presented in Table 5.

Table 5. Total Program Non-Energy Benefits

Non-Energy Benefit	Program Impact	Perspective Adjusted
Mobility	\$39,783	TRC
Arrearage	\$18,187	UCT, RIM, TRC
Economic	\$311,630	TRC
Total	\$369,599	

These non-energy benefits are included in the cost-effectiveness results provided in the table below.

Table 6: Low Income Weatherization Cost-Effectiveness with Non Energy Benefits

	West Res Whole House 49%			
	Costs	Benefits	Net Benefits	Benefit/Cost Ratio
Total Resource Cost Test (PTRC) + Conservation Adder	\$1,648,000	\$1,260,516	(\$387,484)	0.76
Total Resource Cost Test (TRC) No Adder	\$1,648,000	\$1,179,523	(\$468,477)	0.72
Utility Cost Test (UCT)	\$1,648,000	\$828,111	(\$819,889)	0.50
Rate Impact Test (RIM)	\$2,279,226	\$828,111	(\$1,451,116)	0.36
Participant Cost Test (PCT)	\$1,433,760	\$2,064,986	\$631,226	1.44

Date: January 27, 2012
To: Don Jones, Jr.
From: Aaron Jenniges and Niko Drake-McLaughlin
Re: Washington See-Ya-Later Refrigerator 2012-2013 Program Cost-Effectiveness

The tables below present the cost-effectiveness findings of the Washington See-Ya-Later Refrigerator program based on 2012-13 costs and gross savings estimates provided by PacifiCorp in a spreadsheet entitled “Copy of CE inputs for Table 1 business plan 011312”. The analysis assumed a discount rate of 7.17%, based on the 2011 PacifiCorp Integrated Resource Plan.

Cost-effectiveness was tested using the IRP 49% west residential whole house load factor decrement. Table 1 lists modeling inputs.

The program is cost-effective from the TRC, UCT and PCT perspectives. The benefit/cost ratio for the RIM test is less than 1, indicating the program will have an upward influence on rates.

Table 1: See-Ya-Later Inputs

Parameter	Value
Discount Rate	7.17%
Line Loss	8.87%
Residential Energy Rate (\$/kWh) (base year 2010)	\$0.0767
Inflation Rate ⁷	1.8%

Table 2: See-Ya-Later Program Costs

	Program Expenses (Non-Incentives)	Incentives	Total Utility Costs	Net Participant Incremental Cost
Total	\$480,000	\$120,000	\$600,000	\$120,000

Table 3: See-Ya-Later Savings by Measure Type

	Gross kWh Savings	Realization Rate	Adjusted Gross Savings
Refrigerators	2,371,440	100%	2,371,440
Freezers	390,240	100%	390,240
Kits	85,100	100%	85,100
Total	2,846,780		2,846,780

⁷ Used to escalate future year energy rates.

Table 4: See-Ya-Later Cost-Effectiveness, All Years, Entire Program

			West Res Whole House 49%	
	Costs	Benefits	Net Benefits	Benefit/Cost Ratio
Total Resource Cost Test (PTRC) + Conservation Adder	\$600,000	\$1,551,083	\$951,083	2.59
Total Resource Cost Test (TRC) No Adder	\$600,000	\$1,410,076	\$810,076	2.35
Utility Cost Test (UCT)	\$600,000	\$1,410,076	\$810,076	2.35
Rate Impact Test (RIM)	\$2,304,832	\$1,410,076	(\$894,756)	0.61
Participant Cost Test (PCT)	\$120,000	\$1,824,832	\$1,704,832	15.21

Date: February 6, 2012
To: Don Jones, Jr.
From: Aaron Jenniges and Niko Drake-McLaughlin
Re: Washington Home Energy Savings 2012-2013 Measure Cost-Effectiveness – Net Savings

The tables below present the cost-effectiveness findings of the Washington Home Energy Savings prospective measures based on 2012 and 2013 costs and net savings estimates provided by PacifiCorp in a spreadsheet entitled “Washington_Savings_Summary_contract_goal_010412_Scenario 1_adjustment_011012+DLJ”. The analysis assumed a discount rate of 7.17%, based on the 2011 PacifiCorp Integrated Resource Plan.

Measures were grouped according to the end-use. Cost-effectiveness was tested using the Medium IRP 49% west side residential whole house decrement. Table 1 lists common modeling inputs.

Table 1: Home Energy Savings Inputs

Parameter	Value
Discount Rate	7.17%
Line Loss	8.87%
Residential Energy Rate (\$/kWh) (base year 2010)	\$0.0767
Inflation Rate ⁸	1.8%

Table 2: Home Energy Savings – Program Costs

	Program Expenses (Non-Incentives)	Incentives	Total Utility Costs
2012	\$658,469	\$912,366	\$1,570,825
2013	\$684,537	\$1,145,686	\$1,830,215
Total	\$1,343,006	\$2,058,052	\$3,401,040

⁸ Used to escalate future year energy rates.

**Table 3: Home Energy Savings
Savings by Measure Type**

Year	Measure Type	Measure Name	Gross kWh Savings	Net to Gross	Net kWh Savings			
2012-2013	Appliance	Clothes Washer (MEF \geq 2.46 & WF \leq 4)	604,105	74%	446,454			
		Clothes Washer Recycling	123,872	81%	99,965			
		Dishwasher	49,102	130%	63,688			
		Refrigerator	164,320	82%	134,230			
		Electric Water Heater	66,364	74%	48,971			
		Room Air Conditioner	15,359	81%	12,387			
		Freezers	10,000	82%	8,169			
		Heat Pump Water Heaters	81,412	81%	65,661			
		Total	1,114,533		879,524			
	Weatherization	Insulation - Attic	409,724	91%	372,077			
		Insulation - Floor	491,706	89%	439,295			
		Insulation - Wall	305,316	88%	267,809			
		Windows Tier 1	79,030	76%	60,356			
		Windows Tier 2	18,053	76%	13,787			
		Total	1,303,830		1,153,324			
	HVAC	Heat Pump Upgrade	436,847	81%	352,329			
		Heat Pump Conversion	2,061,619	81%	1,662,751			
		Duct Sealing and Insulation - Electric Heating	1,097,030	81%	884,784			
		Duct Sealing and Insulation - Electric Cooling	31,696	81%	25,564			
		Ductless Heat Pump - Single Head	1,489,923	81%	1,201,663			
		Total	5,117,116		4,127,091			
	New Homes	New Homes BOP	40,222	81%	32,459			
		Total	40,222		32,459			
	Lighting Non-CFL	Fixtures	46,300	93%	43,213			
		Total	46,300		43,213			
	Lighting CFL	LEDs	124,672	81%	100,551			
		CFLs-Spiral	5,580,508	81%	4,500,830			
		CFLs-Specialty	3,255,689	81%	2,625,801			
		Total	8,960,869		7,227,182			
	2013 Total					16,582,869		13,430,334

Table 4: Home Energy Savings Cost-Effectiveness, All Years, Entire Program

	Costs	Benefits	Net Benefits	Benefit/Cost Ratio
Total Resource Cost Test (PTRC) + Conservation Adder	\$6,626,280	\$11,459,329	\$4,833,049	1.73
Total Resource Cost Test (TRC) No Adder	\$6,626,280	\$10,417,572	\$3,791,292	1.57
Utility Cost Test (UCT)	\$3,278,610	\$10,417,572	\$7,138,962	3.18
Rate Impact Test (RIM)	\$11,844,957	\$10,417,572	(\$1,427,385)	0.88
Participant Cost Test (PCT)	\$6,556,350	\$12,484,574	\$5,928,224	1.90

Table 5. Non-Energy Benefits

Non-Energy Benefit	Non-Energy Benefits per Measure	2012 Installs	2013 Installs	Measure Life	NTG	Total Present Value Net Benefits ⁹
Clothes Washer (MEF \geq 2.46 & WF \leq 4)	\$81.00	1,571	2,058	14	74%	\$1,939,004
Dishwasher	\$0.31	508	752	12	130%	\$4,039
Total						\$1,943,042

The results of the appliances analysis with these non-energy benefits incorporated in the cost-effectiveness analysis for appliances are shown in Table 12.

Table 6: Appliance with Non-Energy Benefits

	Costs	Benefits	Net Benefits	Benefit/Cost Ratio
Total Resource Cost Test (PTRC) + Conservation Adder	\$1,187,783	\$2,840,952	\$1,653,168	2.39
Total Resource Cost Test (TRC) No Adder	\$1,187,783	\$2,759,323	\$1,571,540	2.32
Utility Cost Test (UCT)	\$364,092	\$816,281	\$452,190	2.24
Rate Impact Test (RIM)	\$1,040,391	\$816,281	(\$224,110)	0.78
Participant Cost Test (PCT)	\$1,518,500	\$3,166,245	\$1,647,745	2.09

Similarly, the results of the overall program with non-energy benefits included are shown in table 13.

⁹ Benefits have been adjusted for net-to-gross.

To: Jeff Bumgarner, PacifiCorp/Rocky Mountain Power

From: Justin Spencer, David Basak, Ryan Powanda, Navigant

Date: March 26, 2012

Re: OPOWER Program Cost Effectiveness and Program Design – Washington

Navigant has developed this memo in response to Pacificorp's proposed OPOWER program cost effectiveness modeling needs in the state of Washington.

This memo presents the cost effectiveness results of two separate scenarios for the state of Washington. Scenarios 1 and 2 are the expected and guaranteed results using modeled assumptions provided by OPOWER. These scenarios utilize the following assumptions:

- ***Avoided Costs:*** Scenarios 1 and 2 use the "Medium" carbon cost decrement value stream provided in the 2011 PacifiCorp Integrated Resource Plan.
- ***Modeling Inputs:*** Navigant utilized measure savings and costs provided by OPOWER to Pacificorp.
- ***OPOWER Discount*** – A 2-4% discount of program savings was used based on overlap with existing OPOWER rebate programs
- ***Net-to-Gross:*** Along with OPOWER's discount, an additional Net-to-Gross Ratio of 93% was used to account for a conservative estimate of 7% attribution to other DSM programs.
- ***Incremental Costs:*** \$0 incremental costs were assumed for customers, because all net impacts are assumed to be zero-cost behavioral actions
- ***Lifetime:*** This analysis made a conservative assumption of a one-year measure life associated with behavioral measures.

Navigant has calculated total PY 2012-2015 results for each of the two scenarios.

Table 5 –Cost Effectiveness Analysis Inputs

Parameters	Values
Discount Rate for all B/C Tests	7.17%
Line Loss Factor - Energy (%) WA	8.87%
Residential Energy Rate (\$/kWh)	\$0.079
Net-to-Gross Ratio	93%
Escalation Rate	1.8%

Table 2 –Annual Program Savings at Generator for PY 2012-2015 in MWh (Source: OPOWER)

Scenario	Year				
	2012	2013	2014	2015	Total
1 - Expected Result (Gross)	1,376	5,390	5,945	5,673	18,384
1 - Expected Result (Net)	1,280	5,013	5,529	5,276	17,097
2 - Guaranteed Result (Gross)	1,102	4,317	4,761	4,543	14,723
2 - Guaranteed Result (Net)	1,025	4,015	4,428	4,225	13,693

Table 3 –Annual Program Costs for PY 2012-2015 (Source: OPOWER)

Scenario	Year				
	2012	2013	2014	2015	Total
1 - Expected Result	\$96,668	\$132,119	\$185,119	\$200,119	\$614,023
2 - Guaranteed Result	\$96,668	\$132,119	\$185,119	\$200,119	\$614,023

The total PY 2012-2015 cost/benefits results are as follows:

Table 4 –Total PY 2012-2015 Cost/Benefit Test Results

Benefit/Cost Test Performed	Scenario 1 Expected - 2012-2015			Scenario 2 Guaranteed - 2012-2015		
	Costs	Benefits	B/C Ratio	Costs	Benefits	B/C Ratio
Total Resource Cost Test (TRC)	\$614,025	\$1,394,421	2.27	\$614,025	\$1,116,754	1.82
Total Resource Cost Test (PTRC)	\$614,025	\$1,533,863	2.50	\$614,025	\$1,228,430	2.00
Societal Cost Test (SCT)	\$614,025	\$1,394,421	2.27	\$614,025	\$1,116,754	1.82
Utility Cost Test (UCT)	\$614,025	\$1,394,421	2.27	\$614,025	\$1,116,754	1.82
Rate Impact Test (RIM)	\$1,870,639	\$1,394,421	0.75	\$1,620,414	\$1,116,754	0.69
Levelized Cost (\$/kWh)	\$614,025	\$14,904,406	\$0.041	\$614,025	\$11,936,542	\$0.051

It should be emphasized that these results assume that ALL measures implemented are zero-cost behavioral measures, net of 9-11% attributed to other, presumably equipment-focused programs. All of these behavioral measures are assumed to have zero cost and only one year of measure life. Any equipment installations would have incremental costs and longer lifetimes that would need to be considered in a benefit-cost analysis. The actual fraction of savings attributable to equipment installations is a matter of some debate within the DSM industry at this time, with estimates ranging from 0 to 50%. Including equipment installations would likely increase costs more than benefits, but this is uncertain at this time.

Date: January 27, 2012
To: Don Jones, Jr.
From: Aaron Jenniges and Niko Drake-McLaughlin
Re: Washington Energy FinAnswer 2012-13 Program Cost-Effectiveness

The tables below present the cost-effectiveness findings of the Washington Energy FinAnswer program based on 2012 and 2013 costs and gross savings estimates provided by PacifiCorp in a spreadsheet entitled “Copy of CE inputs for Table 1 business plan 011312”. The analysis assumed a discount rate of 7.17%, based on the 2011 PacifiCorp Integrated Resource Plan.

Cost-effectiveness was tested using the 2011 IRP 71% west system load factor decrement. Table 1 lists modeling inputs.

Table 6: Energy FinAnswer Inputs

Parameter	Value
Discount Rate	7.17%
Commercial Line Loss	8.73%
Industrial Line Loss	7.54%
Commercial Energy Rate (\$/kWh) (base year 2010)	\$0.0688
Industrial Energy Rate (\$/kWh) (base year 2010)	\$0.0577
Inflation Rate ¹⁰	1.8%

Table 7: Energy FinAnswer - Total Program Costs

	Program Expenses (Non-Incentives)	Incentives	Total Utility Costs
Additional Measures	\$155,875	\$143,885	\$299,760
HVAC	\$289,963	\$267,658	\$557,621
Lighting	\$264,552	\$244,201	\$508,753
Motors	\$223,967	\$206,739	\$430,706
Refrigeration	\$1,986,645	\$1,833,826	\$3,820,471
Building Shell	\$67,808	\$62,592	\$130,400
Compressed Air	\$117,670	\$108,619	\$226,289
Total	\$3,106,480	\$2,867,520	\$5,974,000

¹⁰ Used to escalate future year energy rates.

Table 8: Energy FinAnswer Savings by Measure Type

		Gross kWh Savings	Realization Rate	Adjusted Gross Savings	Net to Gross Percentage	Measure Life
Industrial Measures	Additional Measures	1,033,437	94%	971,430	100%	14
	HVAC	1,023,305	94%	961,907	100%	14
	Lighting	405,269	94%	380,953	100%	14
	Motors	810,538	94%	761,906	100%	14
	Refrigeration	13,171,251	94%	12,380,975	100%	14
	Compressed Air	780,143	94%	733,334	100%	14
	Total	17,223,943		16,190,506		
Commercial Measures	Building Shell	399,086	100%	399,086	100%	14
	HVAC	798,171	100%	798,171	100%	14
	Lighting	1,197,257	100%	1,197,257	100%	14
	Motors	598,629	100%	598,629	100%	14
	Total	2,993,143		2,993,143		
All Measures	Total	20,217,086		19,183,649		

Table 9: Energy FinAnswer Cost-Effectiveness, All Years, Entire Program

	West System 71%			
	Costs	Benefits	Net Benefits	Benefit/Cost Ratio
Total Resource Cost Test (PTRC) + Conservation Adder	\$9,373,777	\$19,892,197	\$10,518,420	2.12
Total Resource Cost Test (TRC) No Adder	\$9,373,777	\$18,083,815	\$8,710,039	1.93
Utility Cost Test (UCT)	\$5,974,000	\$18,083,815	\$12,109,815	3.03
Rate Impact Test (RIM)	\$18,072,835	\$18,083,815	\$10,980	1.00
Participant Cost Test (PCT)	\$6,267,297	\$14,966,355	\$8,699,058	2.39

Date: January 27, 2012
To: Don Jones, Jr.
From: Aaron Jenniges and Niko Drake-McLaughlin
Re: Washington FinAnswer Express 2012-2013 Cost-Effectiveness

The tables below present the cost-effectiveness findings of the Washington FinAnswer Express program based on projected 2012 and 2013 costs and gross savings estimates provided by PacifiCorp in a spreadsheet entitled “2011 forecast 7-31-2011 WA 8-25-2011rev”. The Utility discount rate is from the 2011 PacifiCorp Integrated Resource Plan.

Cost-effectiveness was tested using the 2011 IRP 71% west system load factor decrement. Table 10 lists modeling inputs, and Table 2 shows the annual cost and savings information provided by PacifiCorp. Table 3 provides measure lives for each bundle, provided by PacifiCorp, as well as realization rates for each bundle’s savings values, taken from the 2005-2008 program evaluation. Table 13 outlines the administrative costs.

Overall, the FinAnswer Express program is cost-effective, passing all five standard cost-benefit tests. Additionally, each component measure bundle is cost-effective as well. Results are shown for the 2012 and 2013 program years combined.

Table 10: FinAnswer Express Inputs

Parameter	Value
Discount Rate	7.17%
Commercial line loss	8.73%
Industrial line Loss	7.54%
Commercial Energy Rate (\$/kWh) (base year 2010)	\$0.0688
Industrial Energy Rate (\$/kWh) (base year 2010)	\$0.0577
Inflation Rate ¹¹	1.8%

¹¹ Used to escalate future year energy rates.

Table 11: FinAnswer Express Annual Costs and Savings by Year and Measure Type

FinAnswer Express	End Use	Gross kWh Savings	Gross KW Savings	Incentives	Participant Incremental Cost
2012	Appliances	21,968	1	\$2,000	\$4,796
	Compressed Air	288,600	14	\$43,576	\$99,107
	Envelope	9,272	1	\$4,768	\$9,914
	Dairy/Farm Equipment	55,500	14	\$7,565	\$15,677
	Food Service	219,126	57	\$32,170	\$78,147
	HVAC	253,608	73	\$47,424	\$160,700
	Irrigation	210,900	142	\$17,652	\$54,436
	Lighting Equipment	4,999,744	992	\$329,251	\$1,873,714
	Motors	493,430	9	\$31,075	\$90,468
	Other Equipment	11,480	1	\$1,030	\$1,480
	Non Trade-Ally (project manager projects)	359,029	111	\$35,903	\$95,273
	2012 Total (w/ Admin Cost)	6,922,657	1,415	\$552,413	\$2,483,712
2013	Appliances	29,714	2	\$2,825	\$6,857
	Compressed Air	296,400	14	\$44,754	\$101,785
	Envelope	19,059	1	\$8,463	\$18,602
	Dairy/Farm Equipment	57,000	14	\$7,769	\$16,100
	Food Service	235,064	61	\$34,960	\$83,243
	HVAC	279,891	82	\$52,420	\$178,523
	Irrigation	216,600	146	\$18,129	\$55,907
	Lighting Equipment	5,249,732	1,042	\$345,713	\$1,967,400
	Motors	503,959	11	\$31,800	\$92,337
	Other Equipment	13,100	1	\$1,100	\$1,600
	Non Trade-Ally (project manager projects)	180,532	114	\$18,053	\$47,906
	2013 Total (w/ Admin Cost)	7,081,050	1,488	\$565,987	\$2,570,260
All Years	Appliances	51,682	3	\$4,825	\$11,653
	Compressed Air	585,000	28	\$88,330	\$200,892
	Envelope	28,331	2	\$13,231	\$28,516
	Dairy/Farm Equipment	112,500	28	\$15,334	\$31,777
	Food Service	454,190	118	\$67,130	\$161,390
	HVAC	533,499	155	\$99,844	\$339,223
	Irrigation	427,500	288	\$35,781	\$110,343
	Lighting Equipment	10,249,476	2,034	\$674,964	\$3,841,114
	Motors	997,389	20	\$62,875	\$182,805
	Other Equipment	24,580	2	\$2,130	\$3,080
	Non Trade-Ally (project manager projects)	539,561	225	\$53,956	\$143,179
	All Years Total (w/ Admin Cost)	14,003,707	2,903	\$1,118,400	\$5,053,972

Table 12: FinAnswer Express Measure Lives and Realization Rates by Measure Type

End Use	Measure Life	Realization Rate
Appliances	9	0.97
Compressed Air	9	0.97
Envelope	20	0.97
Dairy/Farm Equipment	10	0.97
Food Service	12	0.97
HVAC	15	0.72
Irrigation	5	0.97
Lighting Equipment	14	0.98
Motors	15	1.54
Other Equipment	5	0.97
Non Trade-Ally (project manager projects)	14	0.97

Table 13: Program Costs

Year	Program Expenses (Non-Incentives)	Incentives	Total
2012	\$917,587	\$552,413	\$1,470,000
2013	\$899,483	\$565,987	\$1,465,470
Total	\$1,817,070	\$1,118,400	\$2,935,470

Table 14: FinAnswer Express Cost-Effectiveness, All Years, Entire Program

FinAnswer Express - Total Program	West System 71% (2011 medium)			
	Costs	Benefits	Net Benefits	Benefit/Cost Ratio
Total Resource Cost Test (PTRC) + Conservation Adder	\$6,638,905	\$14,291,629	\$7,652,724	2.15
Total Resource Cost Test (TRC) No Adder	\$6,638,905	\$12,992,390	\$6,353,485	1.96
Utility Cost Test (UCT)	\$2,837,426	\$12,992,390	\$10,154,964	4.58
Rate Impact Test (RIM)	\$11,178,250	\$12,992,390	\$1,814,140	1.16
Participant Cost Test (PCT)	\$4,882,014	\$9,421,358	\$4,539,344	1.93

Date: January 27, 2012
To: Don Jones, Jr.
From: Aaron Jenniges and Niko Drake-McLaughlin
Re: Washington NEAA 2012-2013 Cost-Effectiveness

The tables below present the cost-effectiveness findings of the Washington NEAA funding based on 2012-13 costs and savings estimates provided by PacifiCorp in a spreadsheet entitled “Appendix 9 NEEA PAC Report_Savings_Summary v3+ measure life for CE 011312”. The analysis assumed a discount rate of 7.17%, based on the 2011 PacifiCorp Integrated Resource Plan.

Cost-effectiveness was tested using the IRP 49% west residential whole house load factor decrement. Table 1 lists modeling inputs.

The program is cost-effective from the TRC, PCT, and UCT perspectives. The benefit/cost ratio for the RIM test is less than 1, indicating the program will have an upward influence on rates.

Table 1: NEEA Inputs

Parameter	Value
Discount Rate	7.17%
Line Loss	8.87%
Residential Energy Rate (\$/kWh) (base year 2010)	\$0.0767
Inflation Rate ¹²	1.8%

Table 2: NEEA Annual Program Costs

	2012	2013	Total
Utility Costs	\$1,157,000	\$1,212,456	\$2,369,456

Table 3: NEEA Savings

	2012	2013	Total
Savings (kWh)	8,413,980	7,669,380	16,083,360

¹² Used to escalate future year energy rates.

Table 4: NEEA Cost-Effectiveness

	Costs	Benefits	Net Benefits	Benefit/Cost Ratio
Total Resource Cost Test (PTRC) + Conservation Adder	\$2,288,339	\$11,853,411	\$9,565,072	5.18
Total Resource Cost Test (TRC) No Adder	\$2,288,339	\$10,775,828	\$8,487,489	4.71
Utility Cost Test (UCT)	\$2,288,339	\$10,775,828	\$8,487,489	4.71
Rate Impact Test (RIM)	\$11,512,442	\$10,775,828	(\$736,614)	0.94
Participant Cost Test (PCT)	\$0	\$9,224,103	\$9,224,103	N/A

Date: January 27, 2012
To: Don Jones, Jr.
From: Aaron Jenniges and Niko Drake-McLaughlin
Re: Washington Distribution Efficiency Cost-Effectiveness

The tables below present the cost-effectiveness findings of the Distribution Efficiency program based on projected 2012 and 2013 costs and savings estimates provided by PacifiCorp in a spreadsheet entitled “DEI – proforma CE inputs – tie to Biz plan 012312.” Savings have been grossed to reflect line losses associated with this distribution system.

Table 15 shows the cost and savings assumptions.

Table 15: Projects - Costs and Savings

	Annual Energy Savings (MWh/yr)	Implementation Costs	PV O&M Costs	PV Benefits
2012	972.4	\$268,875	\$212,523	\$1,362,355
2013	2,058.6	\$750,000	\$0	\$825,000
Total	3,031.0	\$1,018,875	\$212,523	\$2,187,355

Table 2: Distribution Efficiency

	Costs	Benefits	Net Benefits	Benefit/ Cost Ratio
Total Resource Cost Test (PTRC) + Conservation Adder	\$1,181,220	\$2,132,160	\$950,940	1.81
Total Resource Cost Test (TRC) No Adder	\$1,181,220	\$1,938,327	\$757,107	1.64
Utility Cost Test (UCT)	\$1,181,220	\$1,938,327	\$757,107	1.64

Date: January 27, 2012
To: Don Jones, Jr.
From: Aaron Jenniges and Niko Drake-McLaughlin
Re: Washington Production Efficiency Cost-Effectiveness

The tables below present the cost-effectiveness findings of the Chehalis Plant projects based on projected 2012 and 2013 costs and savings estimates provided by PacifiCorp in the spreadsheet titled "Chehalis Economics - 12-12-11."

Table 15 shows the cost and savings assumptions for each project.

Table 16: Projects - Costs and Savings

	Measure Life	Annual Energy Savings (MWh/yr)	Installed Costs	EM&V Costs	Engineering Fees	Spare Parts Cost	Annual O&M Costs
Lighting (2013)	10	246	\$100,682	\$5,034	\$10,068	\$3,020	\$3,020
Electric Heat Trace Runtime (2012)	10	39	\$11,000	\$2,500	\$1,100	\$330	\$330
Electric Heater Thermostat (2012)	10	37	\$220	\$500	\$0	\$0	\$0
Compressed Air Dryer Controls (2012)	12	29	\$2,420	\$500	\$242	\$73	\$73

Table 17: Production Efficiency, All Years, Entire Program

	Costs	Benefits	Net Benefits	Benefit/ Cost Ratio
Total Resource Cost Test (PTRC) + Conservation Adder	\$152,252	\$222,047	\$69,795	1.46
Total Resource Cost Test (TRC) No Adder	\$152,252	\$201,861	\$49,609	1.33
Utility Cost Test (UCT)	\$152,252	\$201,861	\$49,609	1.33