Demand-side Management 2012 - 2013 Business Plan -Washington

January 31, 2012





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Executive Summary

As required by Order 02 of Docket UE-100170, dated July 29, 2010, PacifiCorp (the "Company") must file 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, by January31, 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 has prepared this Demand-side Management Business Plan (the "Business Plan"), for years 2012-2013.

PacifiCorp's Business Plan update for 2012-2013 reflects updated savings projections and budgets by program or initiative for 2012 and 2013. The updates reflect the Company's current projections based on the best available information at the time of filing (January31, 2012). PacifiCorp will add, delete and/or modify programs, measures, initiatives or specific projects described in this Business Plan going forward as appropriate and as circumstances warrant.

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

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

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¹ Final evaluation reports are available on the Company's website at: 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 2012-2013 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 the Company's 2011 IRP selected resource quantities reflecting any adjustments to those selections detailed in the Company's Biennial Conservation Plan, in addition to planned work to acquire the forecasted DEI and production efficiency savings.

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

	2012 PacifiCorp Washington Conservation Estimates 2013 PacifiCorp Washington Conservation Estimates			tion Estimates	2012 + 2013				
Program	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
Total Residential	9,065,021	9,868,816	1.13	\$ 2,694,825	10,905,588	11,872,586	1.36	\$ 2,954,215	2.48
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 4	-	-	-	\$ 436,000	_	-	-	\$ 436,000	-
Northwest Energy Efficiency Alliance note 5	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 notes 6 & 7	928,735	972,360	0.111	\$ 569,000	1,966,620	2,058,600	0.235	\$ -	0.346
Production efficiency notes 6 & 7	23,100	23,100	0.003	\$ 427,000	54,120	54,120	0.006	\$ 213,800	0.01
Total - conservation programs	35,239,179	38,176,915	4.36	\$ 9,527,825	38,008,158	41,139,678	4.70	\$ 9,481,941	9.054
Customer outreach/communication note 8	-	-	-	\$ 250,000				\$ 250,000	-
Program Evaluations note 9	-	-	-	\$ 635,000				\$ 400,000	
Potential study update/analysis note 10	-	-	-	\$ 80,000				\$ 15,000	
Measure data documentation note 11	-	_	-	\$ 200,000				\$ 50,000	
Res. admin. of prior programs note 12				\$ 1,500				\$ 1,500	-
Total System Benefit Charge Expenses note	35,239,179	38,176,915	4.36	\$10,694,325	38,008,158	41,139,678	4.70	\$10,198,441	9.05

Notes:

- 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 \$1m 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. No savings are forecasted to be tracked and reported from the Energy Education in School program, pending a program redesign, despite the program continuing to include instant savings kits as part of the program's educational curriculum.
- 5. 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.
- 6. Costs in Table 1 for distribution efficiency ("DEI") and production efficiency in non-hydro generating facilities represent forecasted expenditures for specific analysis, engineering studies, reporting, results tracking and evaluation expenses associated with I-937 compliance. Costs for these activities will be recovered through the System Benefits Charge per section 11(b) of the ordering section of Order 02 in Docket UE-100170.
- 7. 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 demand-side management program or portfolio cost effectiveness.
- 8. Outreach and communication costs are treated as a portfolio level expense for the purpose of cost-effectiveness.
- 9. For more detail on the planned evaluations, see the program detail sections in this Business Plan or Appendix 8 to the Biennial Conservation Plan.
- 10. 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.
- 11. Measure data documentation costs have been updated for the revised January 31, 2012 Conservation Potential Plan. The costs are placeholders while work continues to identify final cost estimates.
- 12. 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.
- 13. 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. The cumulative figures presented in this table (for distribution efficiency and in total) represent the upper end of the Company's 8.7 to 9.0 aMW biennial target.

Residential Program Details

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

<u>Refrigerator Recycling (Schedule 107)</u>

Years of Implementation

PacifiCorp 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 currently reflected in the savings assumptions in Table 1.

Evaluation Update

Last Evaluation Report:

Program Years2009-2010

Evaluation Report Date
January 6, 2012

Completed by
The Cadmus Group

Future Evaluation Report(s):

Program YearsEvaluation Report DateTo be Completed by2011-2012By Year-end 2013The Cadmus Group

Program Details

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

WN U-75

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 **Effective:** June 13, 2011

Advice No. 11-01

Issued By Pacific Power & Light Company

By: 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 and services, insulation, windows and miscellaneous equipment such as ceiling fans. In addition, the program includes a Builder Option Package as well as stand-alone measures for new homes.

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. 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.

Planned Program Changes

Program changes are being made in the first quarter of 2012 to improve participation, comply with code and standard changes, align incentives with revised measure costs and savings estimates, and improve cost effectiveness. As part of the changes, additional measures are being added to the program. Future changes including measure additions, deletions and changes in qualifying standards will be based on cost-effectiveness, participation and evolving codes and standards.

Evaluation Update

Last Evaluation Report:

Program YearsEvaluation Report DateCompleted by2006-2008September 22, 2010The Cadmus Group

Future Evaluation Report(s):

Program YearsEvaluation Report DateTo be Completed by2009-20101st Quarter 2012The Cadmus Group2011-2012By Year-end 2013The Cadmus Group

Program Details

General program details for this program are contained in the program tariff; additional program detail is available on the program website. Any changes to the details included in the program tariff must be filed and approved by the Commission prior to becoming effective. In addition, there are

program details managed outside of the program tariff. The program tariff and the text below from the Advice Letter (Docket UE-061297), filed August 11, 2006, describe the information that is managed outside of the tariff and the process for changes.

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

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

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 Tier 1	MEF 1.72-1.99	\$50	\$0
Clothes Washers Tier 2	MEF 2.0+	\$100	\$0
Clothes Washer Recycling	Requires recycling documentation and requires customer to submit incentive application for a new qualified clothes washer	\$0	\$25
Dishwashers	EF 0.65 and above	\$20	\$0
Refrigerators	ENERGY STAR qualified	\$20	\$0
Electric Water Heaters	40+ gallon and EF 0.93 and above	\$50	\$50
Evaporative Coolers (permanently installed)	NA	\$100	\$0
Room Air Conditioner	ENERGY STAR qualified	\$30	\$0
Room Air Conditioner Recycling	Recycled at program sponsored recycling events.	\$20	\$0
Lighting			
Fixtures	ENERGY STAR qualified	\$20	\$0
Ceiling Fans	ENERGY STAR qualified	\$20	\$0
CFLs-Spiral	ENERGY STAR qualified	\$0	\$0.99 to \$2.75 at selected retailers*
CFLs-Specialty	ENERGY STAR qualified	\$0	\$0.99 to \$2.75 at selected retailers*
*All bulb incentives are buy of	downs paid to manufacturers and retailers.		

Measure	Qualifications	Customer Incentive	Mid-Market Incentive
Weatherization			
All Insulation Measures are	subject to a \$500 cap for the lifetime of the home.		
Insulation - Attic	Pre-existing condition must be R-18 or less.	\$0.25/sf.	\$0/sf.
Ilisulation - Attic	Install increment of R-19 or more.	\$0.23/81.	\$0/81.
Insulation - Floor	Pre-existing condition must be R-18 or less. Install increment of R-19 or more.	\$0.45/sf.	\$0/sf.
Insulation - Wall	Pre-existing condition must be R-10 or less. Install increment of R-11 or fill cavity.	\$0.35/sf.	\$0/sf.
Windows	U-factor of 0.32 or lower.	\$1.50/sf.	\$0/sf.
HVAC			
All HVAC work must be con	mpleted by a Program Participating or Program Qu	alified Contracto	or.
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); Must be installed by a participating and licensed HVAC contractor.	\$250	\$25
CAC - proper sizing	Equipment must be 13+ SEER; work must be performed by a program qualified contractor to program requirements.	\$50	\$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; work must be performed by a program qualified contractor to program requirements.	\$50	\$75
Equipment must have airflow of 350 CFM/ton, and refrigerant charge within +/- 3 degrees sub cooling, or +/- 5 degrees super heat; work must be performed by a program qualified contractor to program requirements.		\$100	\$25
Sealing ducts in unconditioned space and achieving a 50% reduction in duct leakage to outside. Work must be performed by a program qualified contractor to program		\$250	\$50
requirements. For upgrade of existing heat pump to new high efficiency heat pump. New heat pump must be 8.5+ HSPF and 14+ SEER with a Thermal Expansion Valve (TXV). Must be installed by a participating and licensed HVAC contractor.		\$200	\$75
Heat Pump Conversion For replacement of existing electric resistance or electric furnace with new high efficiency heat pump. New heat pump must be 8.5+ HSPF and 14+ SEER and have a Thermal Expansion Valve (TXV). Must be installed by a participating and licensed HVAC contractor.		\$300	\$75
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; work must be performed by a program qualified contractor to program	\$75	\$75

Measure	Qualifications	Customer Incentive	Mid-Market Incentive
	requirements.		
New Homes			
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
New Homes Dishwashers	EF 0.65 and above	\$20	\$0
New Homes Refrigerators	ENERGY STAR	\$20	\$0
New Homes CFLs	ENERGY STAR qualified CFL bulbs installed in at least 50 percent of the available home's light sockets.	\$25	\$0
New Homes Duct Sealing			\$0
New Homes Central Air Conditioner with Best Practice Installation and Sizing	Equipment must be 15+ SEER or 12.5 EER and have a Thermal Expansion Valve (TXV). Work must be performed by a program qualified contractor to program requirements.	\$275	\$0
New Homes Heat Pump with Best Practice Installation and Sizing New Homes Heat Pump with Best Practice Installation and Sizing Qualified contractor to program requirements. New heat pump must be 8.5+ HSPF and 14+ SEER with a Thermal Expansion Valve (TXV). Work must be performed by a program qualified contractor to program requirements.		\$325	\$0
New Homes Heat Pump Best Practice Installation	ump The equipment must meet airflow and		\$75
New Homes Insulation - Attic	Install R-49 or greater.	\$0.05/sf.	\$0
New Homes Windows	Install windows with a U-Factor of .32 or lower.	\$0.25/sf.	\$0

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.

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

Advice No. 11-01

Issued By Pacific Power & Light Company

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

WN U-75

Original Sheet No. 118.2

Schedule 118 HOME ENERGY SAVINGS INCENTIVE PROGRAM

PROVISIONS OF SERVICE: (continued)

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

ELECTRIC SERVICE REGULATIONS:

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

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

Advice No. 11-01

Issued By Pacific Power & Light Company

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

Low Income Residential Program Details

The Company offers a Low Income Weatherization program (Schedule 114) to its low income 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 state of Washington.

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% 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 YearsEvaluation Report DateCompleted byJuly 1, 2003 – June 30, 2005January 19, 2007Quantec, LLC

Future Evaluation Report(s):

Program YearsEvaluation Report DateTo be Completed byMarch 1, 2009 - March 1, 2011August 1, 2012The Cadmus Group

Program Details

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

WN U-75

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.
- "Energy Audit" means a service provided by the Agency that includes the measurement and analysis of the energy efficiency of a dwelling including energy savings potential that would result from installing energy efficient measures that are determined to be cost effective.
- (4) "Low Income" means households qualifying under the federal low income guidelines and certified for eligibility according to agency procedure.
- (5) "Major Measures" means ceiling insulation, wall insulation and floor insulation applicable in dwellings with permanently installed electric space heating systems. If physical barriers exist that prohibit the installation of a measure, then the measure is not required as a condition for financial assistance under this schedule.

(continued)

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

Advice No. 11-01

Original Sheet No. 114.2

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

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

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.

 Andrea Kelly
- (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.

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Issued By Pacific Power & Light Company

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

WN U-75

Original Sheet No. 114.3

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

ENERGY EFFICIENT MEASURES:

Financial assistance will be provided based on the results of a cost-effective analysis (Savings to Investment Ratio of 1.0 or greater) through 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.
- Forced air electric space heating duct insulation and sealing in unheated spaces: 30 years. (3)
- (4) Weather stripping and/or caulking, including blower door assisted air sealing and duct sealing: Always considered cost effective.
- (5) Thermal doors: 30 years.

(continued)

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

Effective: June 13, 2011

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Original Sheet No. 114.4

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

<u>ENERGY EFFICIENT MEASURES</u>: (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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By: Andrea L. Kelly Title: Vice President, Regulation

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

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 and was improved and renamed FinAnswer Express (Schedule 115) in May 2004.

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.

Planned Program Changes

Program changes are being made in the first quarter of 2012 and take effect February 24, 2012. Changes will continue to improve participation, align the program with code and standard changes, align incentives with revised measure costs and savings estimates and continue to improve cost effectiveness. As part of the changes, additional measures are being added to the program. Future changes including measure additions, deletions and changes in qualifying standards will be based on cost-effectiveness, participation and evolving codes and standards.

Evaluation Update

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 YearsEvaluation Report DateCompleted by2005-2008December 6, 2010The Cadmus Group

Future Evaluation Report(s):
Program Years

ogram YearsEvaluation Report DateTo be Completed by2009-2011By Year-end 2012Navigant Consulting Inc.2012-2013By Year-end 2014Navigant 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.

The current information for the program can be found on the Company's website at the following links and included below.

Program Details	Website link
Incentive tables	http://www.pacificpower.net/content/dam/pacific_power/doc/Busin
(retrofit) are	ess/Save Energy Money/WA FinAnswer Express Retrofits Broc
included in the	hure_and_Incentive_Tables.pdf
program brochure	
Incentive tables	http://www.pacificpower.net/content/dam/pacific_power/doc/Busin
(new	ess/Save_Energy_Money/WA_FinAnswer_Express_NCMR_Broch
construction/major	ure and Incentive Tables.pdf
renovation) are	
included in the	
program brochure	
Program	http://www.pacificpower.net/content/dam/pacific_power/doc/Busin
definitions	ess/Save_Energy_Money/FinAnswer_Express_29.pdf
Custom incentive	http://www.pacificpower.net/content/dam/pacific_power/doc/Busin
offering	ess/Save_Energy_Money/WA_FinAnswer_Express_Custom_Incen
	tives.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 fluorescent lighting EEMs not listed in the Retrofit Lighting Incentive Table is the lesser of

- a) Existing equipment, or
- b) Energy efficient magnetic ballast and energy saving lamp combination.

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

meentiv	c cups							
	Percent of Energy Efficiency Project Cost Cap	1 Year Simple Payback Cap for Energy Efficiency Projects						
Measures Listed in Incentive Tables								
Lighting - Retrofit	60%	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 i	in Incentive Tables							
Lighting - New Construction/ Major Renovation Measures Receiving a Custom								
Incentive	None	No						
Other Measures Receiving a Custom Incentive	60%	Yes						

- 1. The 1 year simple payback cap means Energy Efficiency Incentives will not be available to reduce the simple payback of an Energy Efficiency Project below one year. If required, individual EEM Energy Efficiency Incentives will be adjusted downward pro-rata so the Energy Efficiency Project has a simple payback after incentives of one year or more.
- 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

Category	Replace	With	Retrofit Incentive
Fluorescent Fixture Upgrade to Standard T8 Fixtures [Standard T8	4' - 1 or 2 T12 lamp(s) + 1 magnetic ballast (MB)	4'- 1 or 2 T8 lamps + 1 electronic ballast (EB)	\$6
lamps and electronic ballasts with ballast factor (BF) ≤0.88]	4' - 3 or 4 T12 lamp(s) + MB(s)	4' - 3 or 4 T8 lamps + EB	\$12
(B1) _0.00]	8' - 1 or 2 T12 lamp(s) + MB(s)	4'- 2, 3 or 4 T8 lamps + EB	\$12
	8'- 1,2,3 or 4 T12 lamps + MB(s)	8' - 1,2,3 or 4 T8 lamps +EB	\$12
	8'- 1,2,3 or 4 T12 HO/VHO lamps + MB(s)	8' - 1,2,3, or 4 T8 HO/VHO lamps + EB(s)	\$18
Fluorescent Fixture Upgrade to 4' Premium T8 Fixtures [Lamps with	4' - 1 or 2 T12 lamp(s) + MB or Standard T8 lamp(s) + EB	4' - 1 or 2 Premium T8 lamp(s) + EB	\$12
initial lumens ≥3100 or wattage ≤30 W; electronic ballasts with BF ≤0.8]	4' - 3 or 4 T12 lamps + MB(s) or Standard T8 lamps + EB	4' - 3 or 4 Premium T8 lamps + EB	\$18
	8' - 1 or 2 T 12 lamp(s) + MB(s)	4' - 2, 3 or 4 Premium T8 lamps + EB	\$20
Fluorescent Delamping and	4' - 2 T12 lamps + MB	4' - 1 Standard T8 lamp + EB	\$12
Standard T8 Fixture Upgrade [Standard T8 lamps and electronic	4' - 3 T12 lamps + MB(s)	4' - 2 or 1 Standard T8 lamp + EB	\$18
ballasts (EB) with BF ≤0.88 -	4' - 4 T12 lamps + MB(s)	4' - 3 Standard T8 lamps + EB	\$18
Fixture removal is not eligible]	4' - 4 T12 lamps + MB(s)	4' - 2 or 1 Standard T8 lamp + EB	\$30
Fluorescent Delamping and	4' - 2 T12 lamps + MB	4' - 1 Premium T8 lamp + EB	\$18
Premium T8 Fixture Upgrade [Lamps with initial lumens ≥3100	4' - 3 T12 lamps + MB(s)	4' - 1 or 2 Premium T8 lamp + EB	\$24
or wattage ≤30 W; electronic	4' - 4 T12 lamps + MB(s)	4' - 3 Premium T8 lamps + EB	\$24
ballasts with BF ≤0.8. Fixture removal is not eligible]	4' - 4 T12 lamps + MB(s)	4' - 1 or 2 Premium T8 lamp + EB	\$35
T8 Fluorescent Lamp Upgrade	≥ 32 W T8 lamp	≤ 30 W T8 lamp	\$0.50
Compact Fluorescent Lighting	Incandescent	<10W (nominal) CFL hardwire fixture	\$10
(CFL)	Incandescent	≥10W and < 20W (nominal) CFL hardwire fixture	\$15
	Incandescent	≥20W (nominal) CFL hardwire fixture	\$20
T5 Fluorescent Fixture Upgrade	≥250 W MH, MV or HPS	3 T5HO lamps (nominal 4') + EB (High Bay)	\$70
	≥ 400 W MH, MV, or HPS	4,5, or 6 T5HO lamps (nominal 4') + EB (High Bay)	\$75
	≥ 750 W MH, MV, or HPS	≥8 T5HO lamps (nominal 4') + EB(s)	\$110
	4' - 4 T12 lamps + MB(s)	2 T5 lamps (nominal 4') + EB (interior fixtures)	\$30
	4' - 4 T12 lamps + MB(s)	2 T5HO lamps (nominal 4') + EB (interior fixtures)	\$25
High Intensity Discharge (HID) Upgrades Based on lamp wattages	Incandescent or tungsten	≤100W Ceramic Metal Halide	\$25
	≥400W MH, MV or HPS	≤320W Ceramic Metal Halide	\$100
		.400 777 G	\$120
	≥750W MH, MV, or HPS	≤400 W Ceramic Metal Halide	\$120
	≥750W MH, MV, or HPS ≥150W and ≤ 250W MH, MV, or HPS, or ≥150W incandescent	≤400 W Ceramic Metal Halide ≥125W and ≤175W Pulse Start MH	\$50
	\geq 150W and \leq 250W MH, MV, or HPS, or		

Category	Replace	With	Retrofit Incentive
	≥1000W MH, MV or HPS	≤750W Pulse Start MH	\$100
	≥ 250 W & < 750 W MH, MV, or HPS	4' - 4, 5, or 6 T8 lamps + EB(s) (High Bay)	\$75
	≥750 W MH, MV or HPS	4' - ≥ 8 lamp T8 + EB(s) (High Bay)	\$100
Exit Signs	Incandescent or fluorescent exit sign	Light Emitting Diode (LED) or Electro luminescent (EL) exit sign – 1 or 2 faced	\$15
	Incandescent or fluorescent exit sign	Photoluminescent or Tritium	\$20
Lighting Controls	Wall switch or no control	Wall or Ceiling Mounted Occupancy Sensor (per sensor)	\$35
	Wall switch or no control	Integral occupancy sensor	\$30
	Wall switch or no control	Photocell (per sensor) (exterior lights only)	\$20
	No control	Time clock (per control)	\$20
	Wall switch or no control	Daylighting control	\$0.10/ connected Watt
	Wall switch or no control	Advanced/integrated daylighting control	\$30
	Wall switch or no control	Bi-level controlled fixtures with integral occupancy sensor (per fixture)	\$35
LED Lighting	Indoor incandescent, neon, or fluorescent signage	LED channel letter signage ≤ 2' high	\$4/linear foot
		LED channel letter signage > 2' high	\$6/linear foot
	Outdoor incandescent, neon, or fluorescent signage	LED channel letter signage ≤ 2' high	\$2/linear foot
		LED channel letter signage > 2' high	\$3/linear foot
	Fluorescent refrigeration case lighting	LED case lighting	\$10/linear foot
	Incandescent, neon or fluorescent signage	LED fixed or scrolling message center signage	See Note 7

Notes for Retrofit lighting incentives:

- 1. Incentives are capped at 60 percent of Energy Efficiency Project Costs and subject to the one-year payback cap.
- 2. 2' U-tube lamps may be substituted for 4' linear fluorescent lamps in the above table.
- 3. For retrofits of existing equipment, lighting incentives will be paid on a one-for-one equipment replacement basis. If fixture counts are changing, the project may be eligible for a custom Energy Efficiency Incentive.
- 4. Incentives for T8 Fluorescent Lamp Upgrades may not be combined with other fluorescent fixture incentives and will only be paid once per facility.
- 5. T8 HO/VHO and High Bay T-8 electronic ballasts are required to have a BF≤ 1.2 to be eligible for incentives.
- 6. To determine the length of LED channel letter signs, measure the length of individual letter at the centerline and add the individual values; do not measure the distance between letters.
- 7. LED fixed or scrolling message center signage incentives are \$0.10 per kilowatt-hour of annual energy savings see note 1. Savings is subject to Pacific Power approval.
- 8. Incentives are not available for LED traffic light upgrades.
- 9. Lighting equipment listed only in the "Replace" column is not eligible for incentives.
- 10. Incentives are available via an Energy Efficiency Incentive Agreement signed prior to ordering new equipment.

CFL = Compact Fluorescent Lamp

MH = Metal Halide

MV = Mercury Vapor

HPS = High Pressure Sodium

HO = High Output

VHO = Very High Output

LED = Light-emitting diode

New Construction/Major Renovation Lighting Incentive Table

Category	Install	Incentive
Premium T8 Fluorescent Fixture Upgrade [Lamps	4' - 1 or 2 Premium T8 lamp(s) + EB	\$7
with initial lumens \geq 3100 or wattage \leq 30 W; electronic ballasts with BF \leq 0.8]	4' - 3 or 4 Premium T8 lamps + EB	\$10
T5 Fluorescent Fixture Upgrade	2 T5HO lamps (nominal 4') + EB (interior fixtures)	\$24
	3 T5HO lamps (nominal 4') + EB (High Bay)	\$48
	4-7 T5HO lamps (nominal 4') + EB(s) (High Bay)	\$60
	≥ 8 T5HO lamps (nominal 4') + EB(s) (High Bay)	\$80
	1 T5 lamp (nominal 4') + EB (interior fixtures)	\$12
	2 T5 lamps (nominal 4') + EB (interior fixtures)	\$30
	3 T5 lamps (nominal 4') + EB (interior fixtures)	\$36
T8 Fluorescent Fixture Upgrade (High Bay)	4' - ≥4 T8 lamps + EB(s) (High Bay)	\$45
High Intensity Discharge (HID) Upgrades	≤100W Ceramic Metal Halide	\$20
Based on lamp wattages	>100W Ceramic Metal Halide	\$40
	>500W Pulse Start MH	\$36
Lighting Controls	Integral occupancy sensor (See Note 7)	\$30
	Daylighting control (See Note 7)	\$0.10/ connected Watt
	Bi-level controlled fixtures with integral occupancy sensor (per fixture) (See Note 7)	\$35
	Advanced/integrated daylighting control	\$30
LED Lighting	Indoor LED channel letter signage ≤ 2' high	\$4/linear foot
	Indoor LED channel letter signage > 2' high	\$6/linear foot
	Outdoor LED channel letter signage ≤ 2' high	\$2/linear foot
	Outdoor LED channel letter signage > 2' high	\$3/linear foot

Notes for new construction and major renovation lighting incentives:

1. The date of the building permit application shall establish the applicable version of the Washington energy code.

- 2. The total connected interior lighting power for New Construction/Major Renovation projects required to comply with the energy code must be 10 percent lower than the interior lighting power allowance calculated under the applicable version of the Washington energy code. For New Construction/Major Renovation projects not required to comply with the energy code, the total connected lighting power must be 10% lower than common practice as determined by Pacific Power.
- 3. Incentives are not available for lighting controls required under the applicable version of the Washington energy code. Incentives are not available for daylighting controls and bi-level fixtures if utilized to comply with the applicable version of the Washington energy code.
- 4. 2' U-tube lamps may be substituted for 4' linear fluorescent lamps in the above table.
- 5. Electronic ballasts for High Bay T8 fixtures are required to have a ballast factor ≤ 1.2 to be eligible for incentives.
- 6. To determine the length of LED channel letter signs, measure the length of individual letter at the centerline and add the individual values; do not measure the distance between letters.
- 7. Incentives are available for this lighting controls measure if purchased prior to the effective date of the 2009 Washington State Energy Code. Incentives are not available for this lighting controls measure if purchased on or after the effective date of the 2009 Washington State Energy Code.
- 8. Eligibility for Advanced/Integrated Daylighting Control is limited to daylight zones in spaces where integrated occupancy and daylighting controls are not required by the Washington State Energy Code.
- 9. Incentives are not available for LED traffic light upgrades.
- 10. Incentives are available via a post-purchase incentive application process. Applying prior to placing equipment orders is recommended but not required.

HO = High Output

VHO = Very High Output

LED = Light-emitting diode

Premium Efficiency Motors Incentive Table

		Nominal Full Load Efficiencies (%)					
		1200	RPMs	s 1800 RPMs		3600 RPMs	
Horsepower	Customer Incentive (\$/motor)	Open Drip- Proof (ODP)	Totally Enclosed Fan-Cooled (TEFC)	Open Drip- Proof (ODP)	Totally Enclosed Fan-Cooled (TEFC)	Open Drip- Proof (ODP)	Totally Enclosed Fan-Cooled (TEFC)
1	\$45	82.5	82.5	85.5	85.5	77.0	77.0
1.5	\$45	86.5	87.5	86.5	86.5	84.0	84.0
2	\$54	87.5	88.5	86.5	86.5	85.5	85.5
3	\$54	88.5	89.5	89.5	89.5	85.5	86.5
5	\$54	89.5	89.5	89.5	89.5	86.5	88.5
7.5	\$81	90.2	91.0	91.0	91.7	88.5	89.5
10	\$90	91.7	91.0	91.7	91.7	89.5	90.2
15	\$104	91.7	91.7	93.0	92.4	90.2	91.0
20	\$113	92.4	91.7	93.0	93.0	91.0	91.0
25	\$117	93.0	93.0	93.6	93.6	91.7	91.7
30	\$135	93.6	93.0	94.1	93.6	91.7	91.7
40	\$162	94.1	94.1	94.1	94.1	92.4	92.4
50	\$198	94.1	94.1	94.5	94.5	93.0	93.0
60	\$234	94.5	94.5	95.0	95.0	93.6	93.6
75	\$270	94.5	94.5	95.0	95.4	93.6	93.6
100	\$360	95.0	95.0	95.4	95.4	93.6	94.1
125	\$540	95.0	95.0	95.4	95.4	94.1	95.0
150	\$630	95.4	95.8	95.8	95.8	94.1	95.0
200	\$630	95.4	95.8	95.8	96.2	95.0	95.4
250	\$687	95.4	95.8	95.8	96.2	95.0	95.8
300	\$770	95.4	95.8	95.8	96.2	95.4	95.8
350	\$960	95.4	95.8	95.8	96.2	95.4	95.8
400	\$1,049	95.8	95.8	95.8	96.2	95.8	95.8
450	\$1,139	96.2	95.8	96.2	96.2	95.8	95.8
500	\$1,229	96.2	95.8	96.2	96.2	95.8	95.8

Notes for Premium Efficiency Motor incentive table:

- 1. Motors larger than 500 horsepower may be eligible for a custom Energy Efficiency Incentive.
- 2. The National Electrical Manufacturers Association (NEMA) Premium efficiency ratings listed are nominal full-load efficiency ratings. Motors that meet or exceed these efficiency requirements may qualify for an incentive.
- 3. Incentives are available via a post-purchase incentive application process.
- 4. Motors that are installed or placed in inventory may qualify for an incentive.
- 5. Incentives are available for qualifying motors purchased prior to December 19, 2010. Incentives are not available for Premium Efficiency Motors purchased on or after December 19, 2010.

Other Motor Incentives Table

Equipment Type	Size Category	Sub-Category	Minimum Efficiency Requirement	Customer Incentive
Electronically	≤ 1 horsepower	Refrigeration application		\$0.50/watt
Commutated Motor	≥ 1 norsepower	HVAC application		\$50/horsepower
Variable-Frequency Drives (HVAC fans and pumps)	≤ 100 horsepower	HVAC fans and pumps	See Note 3	\$65/horsepower
Green Motor Rewinds	\geq 15 and \leq 5,000 hp		Must meet GMPG Standards	\$1/horsepower

Notes for other motor incentives table:

- 1. Equipment that meets or exceeds the efficiency requirements listed for the equipment category in the above table may qualify for an incentive.
- 2. Incentives for all equipment listed in the incentive table are available via a post-purchase application process.
- 3. Electronically Commutated Motors installed in New Construction/Major Renovations and purchased prior to the effective date of the 2009 Washington State Energy Code may be eligible for an incentive. Electronically Commutated Motors installed in New Construction/Major Renovations and purchased on or after the effective date of the 2009 Washington State Energy Code will not be eligible for an incentive.
- 4. 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 energy code are not eligible for incentives. Savings will only be realized for installations where a variable load is present.
- 5. Green Motor Rewind motors that are installed or placed in inventory may qualify for an incentive. Green Motor Rewinds > 5,000 horsepower may be eligible for a custom Energy Efficiency Incentive.
- 6. For Green Motor Rewinds, the participating electric motor service center is paid \$2/horsepower for eligible Green Motor Rewinds. A minimum of \$1/horsepower is paid by the service center to the customer as a credit on the motor rewind invoice. The balance is retained by the service center.
- 7. For retrofits of existing equipment, incentives are for one-for-one same size equipment replacements.

ECM = Electronically Commutated Motor

VFD = Variable Frequency Drive

GMPG = Green Motors Practices Group

HVAC = Heating, Ventilating and Air Conditioning

HVAC Equipment Incentive Table			Minimum Efficiency Requirement & Customer Incentive		
Equipment Type	Size Category	Sub-Category	\$50/ton	\$75/ton	\$100/ton
Unitary Commercial Air Conditioners, Air- Cooled (Cooling Mode)	< 65, 000 Btu/hr	Split system and single package (single phase)	15.0 SEER and 12.5 EER		
	< 65, 000 Btu/hr	Split system and single package (three phase)		14.0 SEER and 11.6 EER	15.0 SEER and 12.0 EER
	≥ 65,000 Btu/hr and < 135,000 Btu/hr	Split system and single package		11.5 EER and either 11.9 IPLV or 11.7 IEER	12.0 EER and either 12.4 IPLV or12.2 IEER
	≥ 135,000 Btu/hr and < 240,000 Btu/hr	Split system and single package		11.5 EER and either 11.9 IPLV or 11.7 IEER	12.0 EER and either 12.4 IPLV or 12.2 IEER
	≥ 240,000 Btu/hr and < 760,000 Btu/hr	Split system and single package		10.5 EER and either 10.9 IPLV or 10.7 IEER	10.8 EER and either 12.0 IPLV or 11.0 IEER
	≥ 760,000 Btu/hr	Split system and single package		9.7 EER and either 11.0 IPLV or 9.9 IEER	10.2 EER and either 11.0 IPLV or 10.4 IEER
Unitary Commercial Air Conditioners, Water and Evaporatively Cooled	< 135,000 Btu/hr	Split system and single package	14.0 EER		
	≥ 135,000 Btu/hr	Split system and single package	14.0 EER		
Package Terminal Air Conditioners and Heat Pumps (PTAC/PTHP) (Heating & Cooling Mode)	≤ 8,000 Btu/hr	Single package	11.8 EER and 3.3 COP Heating		
	> 8,000 Btu/hr and < 10,500 Btu/hr	Single package	11.4 EER and 3.2 COP Heating		
	≥ 10,500 Btu/hr and ≤ 13,500 Btu/hr	Single package	10.7 EER and 3.1 COP Heating		
	> 13,500 Btu/hr	Single package	10.0 EER and 3.0 COP Heating		
Heat Pumps, Air-Cooled (Cooling Mode)	< 65, 000 Btu/hr	Split system and single package (single phase)	15.0 SEER and 12.5 EER		
	< 65, 000 Btu/hr	Split system and single package (three phase)		14.0 SEER and 11.6 EER	15.0 SEER and 12.0 EER
	≥ 65,000 Btu/hr and < 135,000 Btu/hr	Split system and single package		11.5 EER and either 11.9 IPLV or 11.7 IEER	12.0 EER and either 12.4 IPLV or 12.2 IEER
	≥ 135,000 Btu/hr and < 240,000 Btu/hr	Split system and single package		11.5 EER and either 11.9 IPLV or 11.7 IEER	12.0 EER and either 12.4 IPLV or 12.2 IEER
	≥ 240,000 Btu/hr	Split system and single package		10.5 EER and either 10.9 IPLV or 10.7 IEER	10.8 EER and either 12.0 IPLV or 11.0 IEER
Heat Pumps, Air-	< 65, 000 Btu/hr	Split system (single phase)	8.5 HSPF		

HVAC Equipment Incentive Table			Minimum Efficiency Requirement & Customer Incentive		
Equipment Type	Size Category	Sub-Category	\$50/ton	\$75/ton	\$100/ton
Cooled (Heating Mode) - See Note 3		Single package (single phase)	8.0 HSPF		
	< 65, 000 Btu/hr	Split system (three phase)		8.5 HSPF	9.0 HSPF
		Single package (three phase)		8.0 HSPF	8.5 HSPF
	≥ 65,000 Btu/hr and < 135,000 Btu/hr	47°F db/43°F wb outdoor air		3.4 COP	3.4 COP
		17°F db/15°F wb outdoor air		2.4 COP	2.4 COP
	≥ 135,000 Btu/hr	47°F db/43°F wb outdoor air		3.2 COP	3.2 COP
		17°F db/15°F wb outdoor air		2.1 COP	2.1 COP
Heat Pumps, Water-Source (Cooling Mode)	< 135,000 Btu/hr	86°F Entering Water	14.0 EER		
Heat Pumps, Water-Source (Heating Mode) - See Note 3	< 135,000 Btu/hr	68°F Entering Water	4.6 COP		
Heat Pumps, Ground-Source (Cooling Mode)	< 135,000 Btu/hr	77°F Entering Water	14.1 EER		
Heat Pumps, Ground-Source (Heating Mode) - See Note 3	< 135,000 Btu/hr	32°F Entering Water	3.3 COP		
Heat Pumps, Groundwater- Source (Cooling Mode)	< 135,000 Btu/hr	59°F Entering Water	16.2 EER		
Heat Pumps, Groundwater- Source (Heating Mode) - See Note 3	< 135,000 Btu/hr	50°F Entering Water	3.6 COP		
Equipment Type	Size Category	Sub-Category	Incentive		
Ground–Source or Groundwater– Source Heat Pump Loop	All sizes	Open Loop	\$25/ton		
		Closed Loop			

Minimum Efficiency Requirement & Customer

Notes for HVAC equipment incentive table:

- 1. For retrofits of existing equipment, incentives are for one-for-one same size equipment replacements. Exception: PTHPs can replace electric resistive heating, which must be removed.
- 2. Equipment that meets or exceeds the efficiency requirements listed for the size category in the above table may qualify for an incentive. Equipment must meet both listed efficiency requirements to qualify for incentives.
- 3. Incentives for heat pumps are \$50-100 per ton of cooling capacity ONLY. No incentives are paid per ton of heating capacity. Heat Pumps must meet both the cooling mode and heating mode efficiency requirements to qualify for per ton cooling efficiency incentives.
- 4. Incentives for all equipment listed in the incentive table are available via a post-purchase application process.
- 5. Except where noted, all equipment listed in the table will be eligible for incentives in both new construction and retrofit projects.
- 6. Equipment size categories and capacities 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.

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

AHRI = Air-conditioning, Heating, and Refrigeration Institute

SEER = Seasonal Energy Efficiency Ratio

EER = Energy Efficiency Ratio

COP = Coefficient of Performance

HSPF = Heating Seasonal Performance Factor

IPLV = Integrated Part Load Value

PTHP = Package Terminal Heat Pump

PTAC = Package Terminal Air Conditioner

HVAC = Heating, Ventilating and Air Conditioning

IEER = Integrated Energy Efficiency Ratio

Other HVAC Equipment and Controls Incentives

		1		
Equipment Type	Size Category	Sub-Category	Minimum Efficiency Requirement	Customer Incentive
Evaporative				
Cooling	All sizes	Direct or Indirect	Industry Standard Rating (ISR)	\$0.02/ISR CFM
Indirect-Direct Evaporative Cooling (IDEC)	All sizes		Applicable system components must exceed minimum efficiencies required by energy code	(See Note 4)
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 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	All sizes with no prior occupancy based control		See Note 6	\$50/controller

Notes for other HVAC equipment and controls incentive table:

- 1. For retrofits of existing equipment, incentives are for one-for-one same size equipment replacements.
- 2. Equipment that meets or exceeds the efficiency requirements listed for the equipment category in the above table may qualify for an incentive.
- 3. Incentives for all equipment listed in the incentive table are available via a post-purchase application process.
- 4. Incentives are paid at \$0.12/kWh + \$50/kW. IDEC energy and demand savings subject to approval by Pacific Power.
- 5. Incentives are paid at 0.12/kWh + 50/kW. Chiller energy and demand savings subject to approval by Pacific Power.
- 6. 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.

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	Site-Built	U-Factor ≤ 0.30 and SHGC ≤ 0.33 (Glazing Only Rating)	\$0.34/square foot
(See Note 4)	Assembly	U-Factor ≤ 0.35 and SHGC ≤ 0.33 (Entire Window Assembly Rating)	\$0.34/square foot
Window Film	Existing Windows	See Note 6	See Note 6

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 an incentive.
- 2. Incentives for all equipment listed in the incentive table are available via a post-purchase application process for retrofit projects only.
- 3. Building must be conditioned with mechanical cooling to be eligible for envelope incentives.
- 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. Window square footage is determined by the dimensions of the entire window assembly, not just the window glass.
- 6. 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

Building Envelope (New Construction/Major Renovation) Incentives

Building Envelope (1904) Constituent of Manager Renovation) Internet Co				
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 6)	\$0.04/square foot	
Wall Insulation		Minimum increment of R-3.7 continuous insulation above code (See Note 6)	\$0.05/square foot	
Windows	Site-Built	U-Factor ≤ 0.30 and SHGC ≤ 0.33 (Glazing Only Rating)	\$0.34/square foot	
(See Note 5)	Assembly	U-Factor ≤ 0.35 and SHGC ≤ 0.33 (Entire Window Assembly Rating)	\$0.34/square foot	

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

- 1. Equipment that meets or exceeds the efficiency requirements listed for the equipment category in the above table may qualify for an incentive.
- 2. Incentives for all equipment listed in the incentive table are available via a post-purchase application process for new construction projects only.
- 3. Building must be conditioned with mechanical cooling to be eligible for envelope incentives.
- 4. Window square footage is determined by the dimensions of the entire window assembly, not just the window glass.
- 5. Energy performance of window assemblies and glazing products must be rated in accordance with NFRC. 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.
- 6. 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

Food Service Equipment Incentives

	Food Service Equipment Incentives					
Equipment Type	Equipment Category	Minimum Efficiency Requirement	Customer Incentive			
Residential Dishwasher		requirement	meentive			
(Electric Water Heating Only) (See Note 3)	Used in a Commercial Facility	ENERGY STAR Qualified	\$20			
	Undercounter	ENERGY STAR Qualified	\$500			
Commercial Dishwasher (Electric Water Heating Only)	Stationary Rack, Single Tank, Door Type	ENERGY STAR Qualified	\$1,000			
(See Note 3)	Single Tank Conveyor	ENERGY STAR Qualified	\$1,500			
	Multiple Tank Conveyor	ENERGY STAR Qualified	\$2,000			
	Full Size		\$300			
Electric Insulated Holding Cabinet	3/4 Size	ENERGY STAR Qualified	\$250			
Caomer	1/2 Size		\$200			
Electric Steam Cooker	3-, 4-, 5- and 6-pan sizes	ENERGY STAR Qualified	\$750			
Electric Convection Oven		≥70% cooking efficiency (tested in accordance with ASTM F1496)	\$350			
Electric Griddle		≥70% cooking efficiency (tested in accordance with ASTM F1275)	\$300			
Electric Combination Oven		≥60% cooking efficiency (tested in accordance with ASTM F1639)	\$1,000			
Electric Commercial Fryer		ENERGY STAR Qualified	\$200			
	A11 trings <500 lbg/day	ENERGY STAR Qualified				
Ice Machines	All types, ≤500 lbs/day	CEE Tier 3 Qualified	\$150			
(Air-Cooled Only)	A 11 to mag > 500 1bg/days	ENERGY STAR Qualified	\$250			
	All types, >500 lbs/day	CEE Tier 3 Qualified	\$400			
Residential Refrigerator	Used in a Commercial Facility	ENERGY STAR Qualified	\$20			
	0 < V < 15		\$100			
Vertical Commercial Glass	$15 \le V \le 30$	ENERGY STAR® Qualified	\$125			
Door Refrigerator	$30 \le V < 50$	ENERGI STAR® Qualified	\$150			
	50 ≤ V		\$175			
	0 < V < 15		\$100			
Vertical Solid Door	$15 \le V \le 30$	ENERGY STAR® Qualified	\$125			
Refrigerator	$30 \le V < 50$	ENERGY STAK® Quanned	\$150			
	50 ≤ V		\$175			
	0 < V < 15		\$125			
Vertical Solid Door Freezer	$15 \le V < 30$	ENERGY STAR® Qualified	\$150			
v ernear bond Door Freezer	$30 \le V < 50$	ENERGI STAR® Quanned	\$175			
	50 ≤ V] [\$200			

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 an incentive.
- 2. Incentives for all equipment listed in the incentive table are available via a post-purchase application process.
- 3. Dishwashers must be supplied with electrically heated domestic hot water. Models with either electric or gas booster heaters are eligible for incentives.

CEE = Consortium for Energy Efficiency

ASTM = American Society for Testing and Materials

V = Association of Home Appliance Manufacturers (AHAM) Volume in cubic feet

Appliances Incentive Table

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Equipment Type	Equipment Category	Minimum Efficiency Requirement	Customer Incentive		
Ceiling Fans	Residential (used in a business)	See Home Energy Savings program			
High-Efficiency Clothes Washer	Residential (used in a business)	See Home Energy Savings p	orogram		
(must have electric water heating)	Commercial	ENERGY STAR® Qualified	\$150		
	(Coin-operated/Laundromat)	CEE Tier 2	\$200		
Room Air Conditioners	Residential (used in a business)	See Home Energy Savings program			
Electric Water Heater	Residential (40 gallon or larger)	See Home Energy Savings p	orogram		

Notes for appliances incentive table

- 1. Equipment that meets or exceeds the efficiency requirements listed for the equipment category in the above table may qualify for an incentive.
- 2. Incentives for all equipment listed in the incentive table are available via a post-purchase application process.

EF = Energy Factor

MEF = Modified Energy Factor

WF = Water Factor

CEE = Consortium for Energy Efficiency

Irrigation Incentive Table (Retrofit Only)

Irrigation Measure	Replace	With	Limitations	Customer Incentive
Repair Leaking Wheel Lines, Hand Lines and Portable Mainlines	Worn and leaking pipe connections	Cut and pipe press or weld repair of leaking pipe connections	Invoice must show number of joints repaired	\$8.00/joint
Rotating type, Spray Heads or Low-Pressure Pivot Sprinkler Heads	Worn rotating, impact, or spray-type sprinklers	New rotating type, spray heads, or low-pressure pivot sprinkler heads	Must be same design flow or less Limited to 2 replacements per irrigated acre	\$3.00 each (up to 60% of measure costs)
Center Pivot Base Boot Gasket	Worn and leaking center pivot base boot gasket	New center pivot base boot gasket		\$80 each
Drains and Gaskets for Wheel Lines, Hand Lines, Pivots or Portable Main Lines	Worn and leaking drains and gaskets	New drains and gaskets (See Note 4)	1. Limited to 2 replacements per irrigated acre	\$1.00 each
Flow-Controlling Type Nozzles	Existing brass or worn flow-controlling type nozzles	New flow-controlling type nozzles	Must be same design flow or less Limited to 2 replacements per irrigated acre	\$1.50 each
Sprinkler Nozzles	Existing worn nozzle	New brass or plastic range nozzle	Must be same design flow or less Limited to 2 replacements per irrigated acre	\$0.25 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
Wheel-line Hubs (on Thunderbird Wheel Lines)	Worn or leaking hub	New wheel-line hub		\$12.00 each
Sprinkler Pressure Regulators	Worn or faulty regulator	New Pressure regulator	1. Must be same design pressure or less 2. Limited to 2 replacements per irrigated acre	
Brass-Impact Sprinklers	Worn or leaking brass- impact sprinkler	New or rebuilt brass impact sprinkler	Limited to 2 replacements per irrigated acre	\$3.00 each (up to 60% of measure costs)
Wheel-line Leveler	Worn or faulty wheel- line leveler	New or rebuilt wheel-line leveler		\$0.75 each
Wheel-line Feed Hose	Worn or leaking wheel- line feed hose	New or rebuilt wheel-line feedhose		\$15.00 each

Notes for irrigation incentive table:

- 1. Irrigation measures that meet the replacement requirements listed in the above table may qualify for an incentive.
- 2. Incentives for all equipment listed in the incentive table are available via a post-purchase application process.
- 3. All equipment listed in the table will be eligible for incentives only in replacement or retrofit projects.
- 4. Also includes seals and riser caps (dome discs) for valve openers.
- 5. For Energy Efficiency Measures where the incentive is limited to 60% of Energy Efficiency Measure costs, Energy Efficiency Measure costs are subject to Pacific Power approval.

Dairy/Farm Equipment Incentives Table

	J	hent incentives Table	Customer
Equipment Type	Equipment Category	Minimum Efficiency Requirements	Incentive
Automatic Milker Takeoffs (Retrofit Only)		Equipment must be able to sense milk flow and remove milker when flow reaches a pre-set level.	\$235 each
Tractor Block Heater Timers		Timer must be a UL-listed device and rated for a minimum of 15 amps continuous duty.	\$10 each
	12-23" Diameter	Fans must achieve an efficiency level of 11 cfm/W	\$25/fan
Circulating Fans	24-35" Diameter	Fans must achieve an efficiency level of 18 cfm/W	\$35/fan
(See Note 3)	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 compressor to heat water. Customer must use electricity to heat water.	\$220/condenser kW
	12-23" Diameter	Fans must achieve an efficiency level of 11 cfm/W	
High-efficiency Ventilation	24-35" Diameter	Fans must achieve an efficiency level of 13 cfm/W	\$75/fan
Systems (See Note 3)	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 4
Programmable Ventilation Controller		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.	\$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 an incentive.
- 2. Incentives for all equipment listed in the incentive table are available via a post-purchase application process.
- 3. Fan performance must by rated by an independent testing body in accordance with the appropriate ANSI/AMCA standards.
- 4. 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.
- 5. 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 **Compressed Air Incentive Table (Size ≤ 75 Horsepower)**

	Sompress	sed Air incentive Table ()		0.1
Equipment Category	Replace	With	Limitations	Customer Incentive
Low-Pressure Drop Filters	Standard Coalescing Filter	Rated Low-Pressure Drop Filter where: 1. Pressure Loss at Rated Flow is ≤ 1psi, ≤ 3psi at element change 2. Particulate Filtration is 100% at ≥ 3.0 microns, 99.98% at 0.1 to 3.0 microns, ≤ 5 ppm liquid carryover 3. Filter is of deep-bed "mist eliminator" style, with element life ≥ 5 years 4. Rated capacity of filter is ≤ 500 scfm or less	1. Compressor must be ≥ 25 HP	\$0.80/scfm
Receiver Capacity Addition	Limited or no Receiver Capacity (≤ 2 gallons per scfm of compressor capacity)	Receiver capacity > 2 gallons per scfm of compressor capacity 1. Compressor must use load/unload controls without inlet modulation or on/off control. 2. 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. Rated dryer capacity must be ≤ 500 scfm 2. Dryer must operate exclusively in cycling mode and cannot be equipped with the ability to select between cycling and non-cycling mode 3. Refrigeration compressor must cycle off during periods of reduced demand	\$1.50/scfm
VFD Controlled Compressor	Compressor 75 hp or Smaller	VFD-Controlled Oil-Injected Screw Compressor	Compressor must adjust speed as primary means of capacity control Compressor must not use inlet modulation when demand is below minimum speed air production	\$0.15/kWh See Note 4
Zero Loss Condensate Drains	Fixed Timer Drain	Zero Loss Condensate Drain (See Note 5)	Drain is designed to function without release of compressed air into the atmosphere	\$90 each
Outside Air Intake	Compressor intake drawing air from compressor room	Permanent ductwork between compressor air intake and outdoors	Ductwork must meet manufacturer's specifications, which may include: (a) ≤ 0.25" W.C. pressure loss at rated flow, and (b) allow use of compressor room air during extremely cold conditions	\$6.00/hp

Notes for compressed air incentive table:

- 1. Eligibility for incentives is limited to customers with compressed air system(s) containing a single operating compressor less than or equal to 75 hp in size. Multiple compressor systems and compressors larger than 75hp will not be eligible for incentives listed above.
- 2. Equipment that meets or exceeds the efficiency requirements listed for the equipment category in the above table may qualify for an incentive.
- 3. Incentives for all equipment listed in the incentive table are available via a post-purchase application process.
- 4. 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.
- 5. Zero Loss Condensate Drains purchased as requirements for other compressed air measures are eligible for incentives.

SCFM = Cubic Feet of air per Minute at standard conditions (14.5 psia, 68°F, and 0% relative humidity)

Incentives for Other Energy Efficiency Measures

Equipment Type	Replace	Minimum Efficiency Requirements	Customer Incentive
Network PC Power Management Software		Installed software must automatically control the power settings of networked personal computers (PC) at the server level The software must manage power consumption for each individual PC The software must include the capability to report energy	\$7 per controlled PC (up to 100% of measure costs)
Smart Plug Strip	ł	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.	\$15/qualifying unit
Beverage or refrigerated display machine occupancy sensor	No occupancy sensor control	See Note 4	\$75/sensor

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 an incentive.
- 2. Incentives for all equipment listed in the incentive table are available via a post-purchase application process.
- 3. All equipment listed in the table will be eligible for incentives in new construction or retrofit projects.
- 4. Intended for refrigerated vending machines and display cases containing only non-perishable bottled and canned beverages. Refurbished equipment that includes occupancy control is eligible.
- 5. Energy Efficiency Measure Costs for Network PC Power Management Software are subject to Pacific Power approval.

Original Sheet No. 115.1

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:

- 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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Original Sheet No. 115.2

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). 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.

<u>Planned Program Changes</u>

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	Eval	luation	Re	port:
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Program Years **Evaluation Report Date** Completed by 2005 - 2008October 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.

Original Sheet No. 125.1

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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Original Sheet No. 125.2

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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Original Sheet No. 125.3

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	
Туре	New Construction/ Major renovation	New Construction/ Major renovation	New Construction/ Major renovation	Retrofit	
Energy code	Yes	Yes	No	No	
Owner/Customer I	Energy Efficiency Incentive	e caps applied to the Energ	gy Efficiency Project		
60 % of project	No	Yes	Yes	Yes	
1 yr simple	No	Yes	Yes	Yes	
Lighting savings	No	50% 50% 50		50%	
Energy savings	Must exceed code by	Qualifying equipment	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 av		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 <u>all</u> 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. (continued)

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Original Sheet No. 125.7

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

RULES AND REGULATIONS:

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

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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 2011-2012 school year with a potential change to the program for school year 2012-2013 and beyond. 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. Funding for the program during the 2011/2012 school year will be covered through education and outreach expenses. The program is currently under review for further revisions.

Program Description

The energy education curriculum was developed for sixth grade classrooms by three partnering agencies (Blue Mountain Action Council in Walla Walla, Northwest Community Action Center in Toppenish and Opportunities Industrialization Center of Washington in Yakima). The agencies employ certified teachers to work with school administrators, teachers and students. They provide a minimum of 3 one-hour energy education sessions on topics such as electricity generation, conservation, meter reading and efficiency tips. Students receive a kit of measures including a CFL, a refrigerator/freezer temperature card, an electroluminescent nightlight, a shower timer, a hot water temperature card, a kitchen faucet aerator and a wall plate thermometer. A low flow showerhead is provided to those students where the results of a water flow tests indicate a need.

Planned Program Changes

Program savings have historically been based on the results of student surveys. The DSM Advisory Group has questioned the sufficiency of this method in estimating program savings. Validating kWh savings through parent surveys and in-home inspections would greatly increase program costs, require challenging to obtain student and parent contact information from all participants and may be viewed as intrusive. In response to the concerns raised by the DSM Advisory Group and challenges associated with the current measurement and verification of program savings, for the 2011/2012 school year, the costs of the program will be reclassified as education and outreach expenses and the Company will assume no savings from the program towards the 2012-2013 biennial target pending additional program revisions with a mutually supportable measure and verify protocol that is approved under its revised form by the Commission.

Evaluation Update

The report for the school year ending June 2011 is currently under review and should be ready sometime during the first quarter of 2012. This report will be provided to the DSM Advisory Group.

Last Evaluation Report:

Program YearsEvaluation Report DateCompleted by2009 - 2010September 21, 2010The 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.

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Original Sheet No. 113.1

Schedule 113 RESIDENTIAL ENERGY EFFICIENCY PROGRAM – ENERGY EDUCATION IN SCHOOLS

PURPOSE:

Service under this tariff is intended to educate students on energy related topics so that they better understand how electricity is generated and the importance of using electricity efficiently.

APPLICABLE:

To sixth grade students in territory served by the Company in the state of Washington.

DESCRIPTION:

Energy education services and do-it-yourself measures will be provided to 6th grade classrooms through partnerships with local non-profit agencies. The services will be at no cost to students or schools.

VERIFICATION:

All measures provided are intended to be installed in the Company's service territory.

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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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 energyefficient products, services and practices
- Facilitating regional coordination, collaboration and knowledge sharing to align interests and accelerate energy efficiency efforts
- Demonstrating and promoting the value of energy efficiency to increase demand
- Developing market intelligence and resources to help NEEA partners achieve their goals
- 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 Business Plan 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 2012-3 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 tenyear 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 2012-3 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 2012-3 biennial period, see the Company's 2012-2013 Biennial Conservation Plan.

Production Efficiency

Years of Implementation

The Company began a detailed study of the potential energy savings from production efficiency in 2011; with the initial implementation of identified projects beginning in 2012. The Company currently anticipates the complete acquisition of cost effective production efficiency energy savings in its Washington service territory by 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 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 State. All facilities were reviewed as a part of the potential assessment exercise.

<u>Program Details</u>Project work will begin in 2012 starting at the Chehalis power plant for the current biennium. Also in the 2012-3 biennium the Company will work with joint owners at Hermiston and Jim Bridger to get identified projects approved for construction in the 2014-5 biennium. At the Goodnoe Hills wind project, the study showed no significant efficiency improvements available. The remaining wind projects will receive site specific reviews in the coming biennium.

The following table details the specific projects identified for completion in the 2012-3 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

As noted in the 2012-2021 Conservation Business Plan, the Company has included 22 percent of the total savings associated with these projects in the Company's ten-year conservation forecast and biennium target, in recognition of the West Control Area (cost) Allocation Methodology (the share of project costs expected to be borne by Pacific Power's Washington customers).

Customer Outreach and Communications

Years of Implementation

In 2011, the Company implemented *watts*mart, the demand-side management communication and outreach campaign. The *watts*mart 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 *watts*mart 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 *watts*mart 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
Newspaper	Hispanic News, The Waitsburg Times, Walla Walla Union Bulletin and Yakima Herald-
	Republic.
Web Site:	Pacific Power's <i>watts</i> mart website, pacificpower.net/wattsmart, and promotional URL
Pacificpower.net/wattsmart	bewattsmart.com link directly to the energy efficiency landing page and fulfill the
Bewattsmart.com	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 2012-3 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 *watts*mart 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 *watts* mart 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 *watts* mart messaging in their communications to provide a consistent customer experience.

Cost Effectiveness

The cost effectiveness of individual programs proposed for the 2012-3 biennium period and the portfolio views described below was 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
- Overall energy efficiency portfolio (programs and NEEA) level
- Overall energy efficiency portfolio (programs and NEEA) level with non-energy benefits 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 portfolio analysis are those with no direct energy savings attributed to them and include Energy Education in Schools, Customer outreach/communications and Program Evaluations.

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 which will be recovered outside the System Benefits Charge. Costs shown for these activities in Table 1 of this Appendix include forecasted expenditures for specific analysis, engineering studies, reporting, results tracking and evaluation expenses associated with I-937 compliance. Costs for these activities will be recovered through the System Benefits Charge per section 11(b) of the ordering section of Order 02 in Docket UE-100170. Study related costs (e.g. DEI, production efficiency, measure data and the potential study update), required by I-937 are considered initiative compliance

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

⁵ NEEA, Production Efficiency, Distribution Efficiency

costs rather than program costs and will not be included in the determination of the demand-side management program or portfolio cost effectiveness.

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

Additional information for the cost effectiveness assessment of each program, initiative and the portfolios are available on pages 75-94 of this Appendix.

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 H	louse 49%
				Benefit/Cost
	Costs	Benefits	Net Benefits	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

l v			West Res Whole H	louse 49%
		D 61		Benefit/Cost
	Costs	Benefits	Net Benefits	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

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
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⁷ Used to escalate future year energy rates.

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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

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

			West Res Who	le House 49%
				Benefit/Cost
	Costs	Benefits	Net Benefits	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

To: Don Jones, Jr.

From: Aaron Jenniges and Niko Drake-McLaughlin

Re: Washington Home Energy Savings 2012-2013 Measure Cost-

Effectiveness

The tables below present the cost-effectiveness findings of the Washington Home Energy Savings prospective measures based on 2012 and 2013 costs and gross 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	Gross kWh Savings	Net to Gross
	Appliance	483,558	100%
	Weatherization	579,508	100%
	HVAC	2,261,822	100%
2012	New Homes	17,238	100%
	Lighting Non-CFL	26,679	100%
	Lighting CFL	4,002,346	100%
	Total	7,371,151	
	Appliance	630,975	100%
	Weatherization	724,322	100%
	HVAC	2,855,293	100%
2013	New Homes	22,984	100%
	Lighting Non-CFL	19,621	100%
	Lighting CFL	4,958,523	100%
	Total	9,211,718	
	Appliance	1,114,533	100%
	Weatherization	1,303,830	100%
	HVAC	5,117,116	100%
Total	New Homes	40,222	100%
	Lighting Non-CFL	46,300	100%
	Lighting CFL	8,960,869	100%
	Total	16,582,869	

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

	Conto	Donofile	Net	Benefit/Cost
	Costs	Benefits	Benefits	Ratio
Total Resource Cost Test (PTRC) + Conservation Adder	\$7,986,428	\$14,038,958	\$6,052,530	1.76
Total Resource Cost Test (TRC) No Adder	\$7,986,428	\$12,762,689	\$4,776,261	1.60
Utility Cost Test (UCT)	\$3,278,610	\$12,762,689	\$9,484,079	3.89
Rate Impact Test (RIM)	\$13,781,782	\$12,762,689	(\$1,019,093)	0.93
Participant Cost Test (PCT)	\$6,689,220	\$12,484,574	\$5,795,354	1.87

The results above do not reflect non-energy benefits. Appliances in this program have significant non-energy benefits (water). Those benefits, by measure, are outlined in the table below.

Table 5. Non-Energy Benefits

Non-Energy Benefit	Non-Energy Benefits per Measure	2012 Installs	2013 Installs	Measure Life	Total Present Value Benefits
Clothes Washer (MEF ≥ 2.46 & WF ≤ 4)	\$81.00	1,571	2,058	14	\$2,623,703
Dishwasher	\$0.31	508	752	12	\$3,114
Total					\$2,626,817

The results of the overall program with non-energy benefits included are shown in table 6.

Table 6: Home Energy Savings Cost-Effectiveness, All Years, Entire Program with Non-Energy Benefits

	Costs	Benefits	Net Benefits	Benefit/Cost Ratio
Total Resource Cost Test (PTRC) + Conservation Adder	\$7,986,428	\$16,665,775	\$8,679,347	2.09
Total Resource Cost Test (TRC) No Adder	\$7,986,428	\$15,389,506	\$7,403,078	1.93
Utility Cost Test (UCT)	\$3,278,610	\$12,762,689	\$9,484,079	3.89
Rate Impact Test (RIM)	\$13,781,782	\$12,762,689	(\$1,019,093)	0.93
Participant Cost Test (PCT)	\$6,689,220	\$15,111,391	\$8,422,171	2.26



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 1: 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 Rate9	1.8%

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⁹ Used to escalate future year energy rates.

Table 2: 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

Table 3: Energy FinAnswer Savings by Measure Type

		Gross kWh Savings	Realization Rate	Adjusted Gross Savings	Net to Gross Percentage	Measure Life
	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
Industrial	Motors	810,538	94%	761,906	100%	14
Measures	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		
	Building Shell	399,086	100%	399,086	100%	14
	HVAC	798,171	100%	798,171	100%	14
Commercial	Lighting	1,197,257	100%	1,197,257	100%	14
Measures	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 4: Energy FinAnswer Cost-Effectiveness, All Years, Entire Program

			West System 719	%
				Benefit/Cost
	Costs	Benefits	Net Benefits	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. <u>Table 5 Table 5</u> 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. <u>Table 8 Table 8</u> 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 5: 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 ¹⁰	1.8%

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¹⁰ Used to escalate future year energy rates.



Table 6: FinAnswer Express Annual Costs and Savings by Year and Measure Type

Fin A mayyan		Gross kWh	Gross KW		Participant
FinAnswer Express	End Use	Savings	Savings	Incentives	Incremental Cost
EXPICSS	Appliances	21,968	Javings 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
2012	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
	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
2010	HVAC	279,891	82	\$52,420	\$178,523
2013	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
	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
All Years	HVAC	533,499	155	\$99,844	\$339,223
All TEdIS	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 7: 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 8: 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 9: FinAnswer Express Cost-Effectiveness, All Years, Entire Program

FinAnswer Express - Total Program	West System 71% (2011 medium)			
				Benefit/Cost
	Costs	Benefits	Net Benefits	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



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 ¹¹	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

¹¹ Used to escalate future year energy rates.

Table 4: NEEA Cost-Effectiveness

				Benefit/Cost
	Costs	Benefits	Net Benefits	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



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 10 Table 10 shows the cost and savings assumptions.

Table 10: 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	\$1,181,22	\$2,132,16	\$950,940	1.81
	0	0		
Total Resource Cost Test (TRC) No Adder	\$1,181,22	\$1,938,32	\$757,107	1.64
, ,	0	7		
Utility Cost Test (UCT)	\$1,181,22	\$1,938,32	\$757,107	1.64
, ,	0	7		

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."

<u>Table 10</u> shows the cost and savings assumptions for each project.

Table 11: 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 12: 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



To: Don Jones, Jr.

From: Aaron Jenniges and Niko Drake-McLaughlin

Re: Washington 2012-13 DSM Portfolio Cost-Effectiveness

The tables below present the cost-effectiveness analysis for the Washington Energy Efficiency Portfolio based on 2012 and 2013 costs and gross savings estimates provided by PacifiCorp. The analysis assumed a discount rate of 7.17%, based on the 2011 PacifiCorp Integrated Resource Plan.

The portfolio is cost-effective from all perspectives, except the RIM.

Table 13: Common Inputs

Parameter	Value
Discount Rate	7.17%
Residential Line Loss	8.87%
Commercial Line Loss	8.73%
Industrial Line Loss	7.54%
Residential Energy Rate (\$/kWh) (base year 2010)	\$0.0767
Commercial Energy Rate (\$/kWh) (base year 2010)	\$0.0688
Industrial Energy Rate (\$/kWh) (base year 2010)	\$0.0577
Inflation Rate ¹²	1.8%

Table 14: Energy Education

	Value
Costs	\$872,000

¹² Used to escalate future year energy rates.

Table 15: NEEA

	2012	2013	Total
Savings (kWh)	8,413,980	7,669,380	16,083,360
Costs	\$1,157,000	\$1,212,456	\$2,369,456

Table 16: Portfolio Administrative Costs

Portfolio Costs	2012	2013	Total
Customer outreach/communication	\$250,000	\$250,000	\$500,000
Program Evaluations	\$635,000	\$400,000	\$1,035,000
Res. admin. of prior programs	\$1,500	\$1,500	\$3,000
Total Portfolio Costs	\$886,500	\$651,500	\$1,538,000

Table 17: Total Portfolio Including NEEA and Energy Education

	Costs	Benefits	Net Benefits	Benefit/Cost Ratio
Total Resource Cost Test (PTRC) + Conservation Adder	\$30,901,862	\$62,518,195	\$31,616,333	2.02
Total Resource Cost Test (TRC) No Adder	\$30,901,862	\$56,834,722	\$25,932,860	1.84
Utility Cost Test (UCT)	\$18,992,788	\$56,834,722	\$37,841,934	2.99
Rate Impact Test (RIM)	\$61,495,780	\$56,834,722	(\$4,661,058)	0.92
Participant Cost Test (PCT)	\$19,392,291	\$49,986,208	\$30,593,917	2.58

Table 18: C&I Energy Efficiency Portfolio

	Costs	Benefits	Net Benefits	Benefit/Cost Ratio
Total Resource Cost Test (PTRC) + Conservation Adder	\$16,012,682	\$34,183,826	\$18,171,144	2.13
Total Resource Cost Test (TRC) No Adder	\$16,012,682	\$31,076,205	\$15,063,523	1.94
Utility Cost Test (UCT)	\$8,811,426	\$31,076,205	\$22,264,779	3.53
Rate Impact Test (RIM)	\$29,251,085	\$31,076,205	\$1,825,120	1.06
Participant Cost Test (PCT)	\$11,149,311	\$24,387,713	\$13,238,402	2.19



Table 19: Residential Energy Efficiency Portfolio (including NEEA and Energy Education)

	Costs	Benefits	Net Benefits	Benefit/Cost Ratio
Total Resource Cost Test (PTRC) + Conservation Adder	\$13,394,767	\$28,334,369	\$14,939,602	2.12
Total Resource Cost Test (TRC) No Adder	\$13,394,767	\$25,758,517	\$12,363,750	1.92
Utility Cost Test (UCT)	\$8,686,949	\$25,758,517	\$17,071,568	2.97
Rate Impact Test (RIM)	\$30,750,282	\$25,758,517	(\$4,991,766)	0.84
Participant Cost Test (PCT)	\$8,242,980	\$25,598,495	\$17,355,515	3.11

The following tables reflect the cost-effectiveness analysis with non-energy benefits.

Table 20: Total Portfolio Including NEEA, Energy Education, and Non-Energy Benefits

			Net	Benefit/Cost
	Costs	Benefits	Benefits	Ratio
Total Resource Cost Test (PTRC) + Conservation Adder	\$30,901,862	\$65,514,611	\$34,612,749	2.12
Total Resource Cost Test (TRC) No Adder	\$30,901,862	\$59,831,138	\$28,929,276	1.94
Utility Cost Test (UCT)	\$18,992,788	\$56,852,908	\$37,860,121	2.99
Rate Impact Test (RIM)	\$61,495,780	\$56,852,908	(\$4,642,872)	0.92
Participant Cost Test (PCT)	\$19,392,291	\$52,613,025	\$33,220,734	2.71

Table 21: Residential Energy Efficiency Portfolio with Non-Energy Benefits (including NEEA and Energy Education)

			Net	Benefit/Cost
	Costs	Benefits	Benefits	Ratio
Total Resource Cost Test (PTRC) + Conservation Adder	\$13,394,767	\$31,330,785	\$17,936,018	2.34
Total Resource Cost Test (TRC) No Adder	\$13,394,767	\$28,754,933	\$15,360,166	2.15
Utility Cost Test (UCT)	\$8,686,949	\$25,776,703	\$17,089,754	2.97
Rate Impact Test (RIM)	\$30,750,282	\$25,776,703	(\$4,973,579)	0.84
Participant Cost Test (PCT)	\$8,242,980	\$28,225,312	\$19,982,332	3.42