PACIFIC POWER
A DIVISION OF PACIFICORP

825 NE Multnomah, Suite 800
Portland, Oregon 97232

April 1, 2013

VIA ELECTRONIC FILING
AND OVERNIGHT DELIVERY

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

Attn: Steven V. King
Acting Executive Director and Secretary

Re: Docket UE-111880
2012 Annual Report on Conservation Acquisition

PacifiCorp d/b/a Pacific Power & Light Company (Company) submits an original and two copies of the Company's 2012 Annual Report on Conservation Acquisition, including an evaluation of cost-effectiveness and comparison of budgets to actual expenditures and the systems benefits charge.

It is respectfully requested that all inquiries regarding this filing be addressed to:

By Email (preferred): datarequest@pacificorp.com

By regular mail: Data Request Response Center
PacifiCorp
825 NE Multnomah, Suite 2000
Portland, OR 97232

If you have any informal inquiries regarding this matter, please contact Bryce Dalley, Director, Regulatory Affairs & Revenue Requirement, at (503) 813-6389.

Sincerely,

Carol L. Hunter

Carol L. Hunter
Vice President, Services

Enclosure

Washington Annual Report on Conservation Acquisition

January 1, 2012 – December 31, 2012

Issued April 1, 2013

PACIFIC POWER
A DIVISION OF PACIFICORP

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Table of Contents

List of Abbreviations and Acronyms

CFLs	Compact Fluorescent Lights
DSM	Demand-Side Management
Schedule 191	Schedule 191 System Benefits Charge Adjustment
EM&V	Evaluation, Measurement & Verification
HVAC	Heating, Ventilation and Air Conditioning
IRP	Integrated Resource Plan
kWh	Kilowatt hour
NAPEE	National Action Plan for Energy Efficiency
NEEA	Northwest Energy Efficiency Alliance
NTG	Net-to-Gross
PCT	Participant Cost Test
PTRC	PacifiCorp Total Resource Cost test
RCW	Revised Code of Washington
RIM	Ratepayer Impact Measure Test
SBC	System Benefit Charge
SYLR	See ya later, refrigerator®
TRC	Total Resource Cost test
UCT	Utility Cost Test
WAC	Washington Administrative Code

Executive Summary

PacifiCorp d/b/a Pacific Power & Light Company, ("Pacific Power" or "Company") works with its customers to reduce the need for investment in supply side resources and infrastructure by reducing energy and peak consumption through cost-effective energy efficiency programs.

The Company currently offers six energy efficiency programs in Washington approved by the Washington Utilities and Transportation Commission ("Commission"), and receives energy savings and market transformation benefits through its affiliation with the Northwest Energy Efficiency Alliance ("NEEA"). The expenditures associated with these programs are recovered through the System Benefits Charge Adjustment, Schedule 191 ("Schedule 191").

This report provides details on program results and activities, expenditures, and Schedule 191 revenue for the performance period from January 1, 2012, through December 31, 2012. The Company, on behalf of its customers invested $10.1m in energy efficiency information, services, and incentives during the reporting period. The investment yielded approximately 49.8 gigawatt-hours in first year savings[1] and approximately 8 megawatts of capacity reduction[2]. Net benefits over the life of the individual measures are estimated at $21.9m [3]. The cost effectiveness of the portfolio from various perspectives is provided in Table 1.

Table 1
Long-term Cost Effectiveness for the Portfolio[4]

	B/C Ratio	Net Benefits
Total Resource Test plus 10% – total resource cost with the addition of environmental and non-energy benefits[5]	2.24	$21,889,314
Total Resource Cost Test – effects on both participants and non-participants[6]	2.04	$18,404,927
Utility Cost Test – effect on customers[7]	3.51	$24,926,282
Participant Cost Test – effect on participants[8]	2.88	$21,256,328
Ratepayer Impact – effect on the cost per kilowatt-hour of sales	0.93	($2,788,314)

All cost effectiveness calculations will assume a net-to-gross ("NTG") of 1.0 consistent with the Council's methodology. Annual performance information for 2012 is provided in detail in Appendix 2.

[1] Realized savings at generation.
[2] See Appendix 1 for explanation on how the capacity contribution savings values are calculated.
[3] See Table 1 – Total Resource Cost Test plus 10% Net Benefits.
[4] Includes NEEA savings and Non-Energy Benefits. B/C ratios excludes portfolio level expenses i.e. the costs of the potential study and development of measure data consistent with handling as described in the Company's EM&V Framework.
[5] The PTRC includes the 10% Northwest Regional Credit allowed in Washington.
[6] The TRC compares the total cost of a supply side resource to the total cost of energy efficiency resources, including costs paid by the customer in excess of the program incentives. The test is used to determine if an energy efficiency program is cost effective from a total cost perspective.
[7] The UCT compares the total cost incurred by the utility to the benefits associated with displacing or deferring supply side resources.
[8] The PCT compares the portion of the resource paid directly by participants to the savings realized by the participants.

The portfolio was cost effective based on four of the five standard cost effectiveness tests for the reporting period. The ratepayer impact measure test[9] was less than 1.0 indicating near-term upward pressure was placed on the price per kilowatt-hour given a reduction in sales.

During the reporting period, the Company, working with its third party administrators,[10] has enlisted the following number of retailers, contractors, and vendors to support the energy efficiency programs in Washington:

Table 2
Energy Efficiency Infrastructure

Sector	Type	No.
Residential	Lighting Retailers	24
	Appliances Retailers	18
	HVAC Contractors	37
	Insulation Contractors	20
	Low Income Agencies	3
Commercial and Industrial	Lighting Trade Allies	51
	HVAC Trade Allies	28
	Motors Trade Allies	42
	Engineering Firms	24

As approved by the Commission, costs associated with the energy efficiency programs are recovered through Schedule 191.

[9] The RIM examines the impact of energy efficiency on utility rates. Unlike supply-side investments, energy efficiency programs reduce energy sales. Reduced energy sales can lower revenue requirements (see UCT) while putting upward pressure on rates as the remaining fixed costs are spread over fewer kilowatt-hours.
[10] See program specific sections for backgrounds on third party administrators.

Regulatory Activities

During the reporting period the Company requested and received approval of the following:

- Initiative 937 compliance plans and reports
  - The Ten-year Achievable Conservation Potential and Biennial Conservation Target for 2012 and 2013 filed January 31, 2012
  - The 2011 Conservation Acquisition Annual Report filed March 30, 2012 pursuant to Docket UE-100170, Order 2, Paragraph 8(g)
  - The 2010-2011 Biennial Conservation Report filed on June 1, 2012 pursuant to RCW 19.285.070 and WAC 480-109-040 and consistent with Condition 8(h) UE-100170 Order 02
  - A revised Demand-Side Management Business Plan filed June 4, 2012 pursuant to Docket 111880 Order 1, Condition 5
  - Joint utility proposal on consistent forecasting and reporting of the Northwest Energy Efficiency Alliance savings pursuant to Docket UE-100170, Order 03, filed October 31, 2012
  - A second revised Demand-Side Management Business Plan filed November 1, 2012
- Modification to *FinAnswer Express* – Schedule 115, effective February 24, 2012[11]
- Modification of *Home Energy Savings* – Schedule 118, effective April 16, 2012[12]
- Cancelation of the *Energy Education in Schools* – Schedule 113, effective June 30, 2012
- Implementation of a *Home Energy Report* pilot effective July 12, 2012[13]
- Modifications to *Energy FinAnswer* – Schedule 125, filed November 1, 2012, pursuant to Order 02 of Docket UE-111880

On April 26, 2012, the Commission issued Order 01 in Docket UE-111880 approving the Company's 2012-2021 Ten-Year Achievable Conservation Potential and 2012-2013 Biennial Conservation Target. On September 13, 2012, the Commission issued Order 03 in Docket UE-100170 acknowledging that the Company had met its 2010-2011 Biennial Conservation Target.

Advisory Group Activities

Consistent with the conditions set forth in Docket UE-111880, Order 01, Paragraph 3(a), Pacific Power seeks input regarding its energy efficiency programs from the Washington Demand-Side Management Advisory Group. This group includes representatives from a variety of constituent organizations. Pacific Power communicated with the DSM Advisory Group throughout 2012 in the follow matters:

<u>On March 8, 2012:</u>

- The Company made a proposal for a Home Energy Report Pilot Program;
- Provided an update on the Company's program evaluations for 2011;

[11] Utilizing the program's flexible tariff and 45 day change noticing provision, no filing was required.
[12] Utilizing the program's flexible tariff and 45 day change noticing provision, no filing was required.
[13] Non-tariffed pilot program.

- Reviewed the Energy Education in Schools program and the decision to cancel the program; and
- Reviewed the savings verification evaluation to be conducted on 2012-13 reported savings and provided in the June, 2014, 2012-13 biennial report

On April 27, 2012:

- The Company held a conference call to discuss the planned adjustment to the Schedule 191 – System Benefits Charge Adjustment.

On May 4, 2012:

- The Company made a proposal for a Home Energy Report Pilot Program.

On September 10, 2012:

- Reviewed the results of the Low Income Weatherization evaluation.
- Provided an update on the Boise White Paper, LLC discussion.
- A review of the Company's EM&V framework; and
- A review of the new School Education Outreach program.

On November 6, 2012:

- An update on Distribution Efficiency study.
- An update on Home Energy Reporting.
- A discussion on Low Income evaluation recommendations on high usage households.
- Status on November Business Plan update.
- Review of Energy FinAnswer program change for Energy Project Manager co-funding; and
- An overview update on the EM&V Framework and Technical Reference Database.

System Benefits Charge Balancing Account Summary

Demand-side management activities are funded through Schedule 191, the System Benefits Charge Adjustment. Expenditures are charged as incurred and collected from the Systems Benefit Charge. The balancing account is the mechanism used for managing the revenue collected and expenses incurred in the provision of DSM programs. On May 15, 2012, the Company requested an increase to Schedule 191 to align the Company's recovery of its costs associated with acquiring and administering cost effective conservation in its Washington service territory. The Commission approved the Company's request effective July 13, 2012. The balancing account activity for 2012 is included in this report consistent with Ordering Paragraph 8(g), Order 02, Docket UE-111880, and is outlined in Table 3 on the following page.

Table 3
System Benefit Charge Balancing Account Summary

State of Washington SBC Summary -- Balancing Account				Balance 12/31/11 765,949	 530,996	 1,296,944.38
	Deferred Expenditures	Schedule 191 Revenue Collected	Carrying Charge	Accumulative Balance	Accrued Costs	Accrual Basis Accumulatiive Balance
Jan-12	269,147	(921,780)	0.00	113,316	201,803.21	846,114.92
Feb-12	966,516	(804,573)	0.00	275,259	(210,794.01)	797,263.97
Mar-12	1,193,463	(722,893)	0.00	745,829	80,080.96	1,347,914.79
Apr-12	535,597	(652,708)	0.00	628,718	114,267.53	1,345,071.63
May-12	747,334	(592,718)	0.00	783,334	55,877.89	1,555,565.21
Jun-12	887,017	(634,001)	0.00	1,036,350	106,170.48	1,914,752.14
Jul-12	540,616	(719,434)	0.00	857,532	109,323.27	1,845,257.36
Aug-12	857,295	(1,013,611)	0.00	701,216	(39,809.63)	1,649,131.67
Sep-12	676,952	(950,412)	0.00	427,756	(94,132.25)	1,281,539.20
Oct-12	1,251,104	(897,683)	0.00	781,177	(381,622.28)	1,253,337.90
Nov-12	581,199	(928,125)	0.00	434,251	45,363.17	951,774.69
Dec-12	1,480,119	(1,080,074)	0.00	834,296	106,487.26	1,458,307.31
Total 2012	9,986,359	(9,918,012)				

Column Explanations:

Deferred Expenditures: Monthly expenditures for all program activities posted in 2012, including funding for the Northwest Energy Efficiency Alliance.

Revenue Collected: Revenue collected through Schedule 191, System Benefits Charge Adjustment.

Carrying Charge: Monthly charge based on "Accumulative Balance" of the account, accrued when cumulative revenue exceeds cumulative expenditures. On July 29, 2010 in Docket UE-001457, the Commission ordered that the one-way carrying charge on negative balances (balances owing to customers) be eliminated going forward.

Accumulative Balance: A running total of account activities. If more is collected in "Revenue" than is spent for a given month, the "Accumulated Balance" will be increased by the net amount. A negative accumulative balance means cumulative revenue exceeds cumulative expenditures; positive accumulative balance means cumulative expenditures exceed cumulative revenue.

Accrued Costs: Program costs incurred during the period not yet posted in system.

Accrual Basis Accumulative Balance: Current balance of account including accrued costs.

During calendar year 2012, the under-collected balance in the System Benefits Charge balancing account increased by $68,347, and with accrued costs, the account increased by approximately $161,363. Therefore, the Company spent approximately $68,347, and with accrued costs, $161,363 more than what was collected for program delivery during the year.

Planning Process

Integrated Resource Plan

The Company develops a biennial integrated resource plan ("IRP") as a means of balancing cost, risk, uncertainty, supply reliability/deliverability, and long-run public policy goals. The plan presents a framework of future actions to ensure the Company continues to provide reliable, reasonable-cost service with manageable risks to the Company's customers. Energy efficiency and peak management opportunities are incorporated into the plan based on their availability, characteristics, and costs.

Energy efficiency and peak management resources can be divided into four general classes based on their relative characteristics, the classes are:

- Class 1 DSM (Resources from fully dispatchable or scheduled firm capacity product offerings/programs) – Capacity savings occur as a result of active Company control or advanced scheduling. Once customers agree to participate, the timing and persistence of the load reduction is involuntary on their part within the agreed limits and parameters.
- Class 2 DSM (Resources from non-dispatchable, firm energy and capacity product offerings/programs) – Sustainable energy and related capacity savings are achieved through facilitation of technological advancements in equipment, appliances, lighting and structures or sustainable verifiable changes in operating and maintenance practices, also commonly referred to as energy efficiency resources.
- Class 3 DSM (Resources from price responsive energy and capacity product offerings/programs) – Short-duration energy and capacity savings from actions taken by customers voluntarily based on pricing incentives or signal.
- Class 4 DSM (Resources from energy efficiency education and non-incentive based voluntary curtailment programs/communications pleas) – Energy and/or capacity reduction typically achieved from voluntary actions taken by customers, to reduce costs or benefit the environment through education, communication and/or public pleas.

As technical support for the IRP, a third party analysis is conducted to estimate the magnitude, timing and cost of alternative energy efficiency and peak management options.[14] The main focus of the study has been on resources with sufficient reliability characteristics that are anticipated to be technically feasible and assumed achievable during the IRP's 20-year planning horizon. The estimated achievable energy efficiency potential identified in the 2011 study for Washington was 122 average megawatts or 22 percent of forecasted retail sales in 2030.[15] By definition this was the energy efficiency potential that may be achievable during the 20-year planning horizon if determined least cost and cost-effective compared to supply-side alternatives within the Company's integrated resource planning process.

[14] www.pacificorp.com/content/dam/pacificorp/doc/Energy_Sources/Demand_Side_Management/DSM_VolumeI_2011_Study.pdf

[15] Ibid.

The achievable technical potential for Washington by sector is shown in Table 4. The 2011 potential study indicates that 11 percent of the achievable technical potential for the Company, excluding Oregon[16], is in Washington.[17]

Table 4
Washington Energy Efficiency Achievable Technical Potential by Sector

Sector	Average Megawatts in 2030	Percent of Retail Sales
Residential	68	28%
Commercial	35	18%
Industrial	17	15%
Irrigation	2	10%
Street Lights	0.5	36%

Energy efficiency resources vary in their reliability, load reduction, and persistence over time. Based on the significant number of measures identified in the potential study it is difficult to incorporate each measure as a stand-alone resource in the IRP. To address this issue, energy efficiency measures are bundled by their weighted-average load shape, lives, and costs to reduce the number of combinations to a more manageable number.

The evaluation of energy efficiency resources within the IRP is also informed by state specific evaluation criteria. While all states generally use commonly accepted cost effectiveness tests[18], some states require variations in calculating or prioritizing the tests.

- Washington and Oregon utilize the total resource cost test adjusted for environmental and non-energy benefits (10 percent additional benefits) as the primary determination of cost effectiveness.
- Utah utilizes the utility cost test as the primary determination of cost effectiveness.

The Company evaluates program implementation cost effectiveness (both prospectively and retrospectively) under a variation of five tests to identify the relative impact and/or value to customers and the Company (i.e. near-term rate impact, program value to participants, etc.).

Both the 2008 and 2011 Integrated Resource Plan preferred portfolios included the acquisition of energy efficiency resources. The action plan targets for the 2008 and 2011 Integrated Resource Plan updates[19] are shown in Table 5.

[16] Demand-side management potential studies for Oregon are performed by the Energy Trust of Oregon
[17] Page 49 of the Assessment of Long-term, System-Wide Potential for Demand-Side and Other Supplemental Resources
[18] The footnotes on page 6 provide explanations of cost effectiveness tests.
[19] 2008 IRP update, March, 2010, and 2011 IRP LC 52 Revised IRP Action Plan, January, 2012.

Table 5
Preferred Portfolio Energy Efficiency Targets

2008 Preferred Portfolio	Acquire 468-525 average megawatts of energy efficiency by 2018
2011 Preferred Portfolio	Acquire a minimum of 517 average megawatts of energy efficiency resource savings by 2020

Energy Efficiency Programs

Energy efficiency programs are offered to all major customer sectors: residential, commercial, industrial and agricultural. The overall energy efficiency portfolio includes six programs: *Home Energy Savings,* Schedule 118*; Home Energy Reports; Residential Refrigerator Recycling,* Schedule 107*; Low Income Weatherization,* Schedule 114*; Energy FinAnswer*, Schedule 125*; and FinAnswer Express,* Schedule 115. In addition to the energy efficiency programs, the Company, on behalf of customers, invests in outreach and education regarding the efficient use of electricity. Results for 2012 are provided in Table 6.

Table 6
Washington Results January 1, 2012 – December 31, 2012

Program	kWh/Yr Savings (at site)	kWh/Yr Savings (at generator)	aMW Savings (at gen)	Systems Benefits Charge Expenditures
Low Income Weatherization (114)	206,080	226,008	0.03	$ 606,108
Refrigerator Recycling (107)	1,075,254	1,179,231	0.13	$ 247,055
Home Energy Savings (118)	6,051,410	6,636,581	0.76	$ 1,135,181
Home Energy Reporting	1,778,482	1,950,461	0.22	$ 100,257
Northwest Energy Efficiency Alliance	12,439,200	13,610,780	1.55	$ 1,218,412
Total Residential	**21,550,425**	**23,603,061**	**2.69**	**$ 3,307,012**
Energy FinAnswer (125)	2,190,303	2,399,061	0.27	$ 473,104
FinAnswer Express (115)	9,982,986	10,934,464	1.25	$ 2,092,466
Total Commercial	**12,173,289**	**13,333,525**	**1.52**	**$ 2,565,569**
Energy FinAnswer (125)	9,890,551	10,697,719	1.22	$ 1,900,245
FinAnswer Express (115)	1,886,703	2,040,677	0.23	$ 550,878
Total Industrial	**11,777,254**	**12,738,396**	**1.45**	**$ 2,451,122**
FinAnswer Express (115)	97,532	106,963	0.01	$ 7,734
Total Agricultural	**97,532**	**106,963**	**0.01**	
Total	**45,598,500**	**49,781,945**	**5.68**	**$ 8,331,438**
Additional residential expenditures for administration related to prior programs				
Company Initiatives - Distribution Efficiency				$ 146,618
Company Initiatives - Production Efficiency				$ 231,495
School Energy Education				$ 252,946
New Programs				$ (3,421)
Res. Admin of Prior Programs				$ 1,586
Outreach and Communication				$ 209,022
Portfolio Level Expenditures (evaluation, potential study & technical reference library)				$ 885,332
Total System Benefits Charge expenditures				**$ 10,055,015**

The cost effectiveness of the overall portfolio was provided in Table 1.

The Company, consistent with requirements under Docket UE-111880, Order 01, Ordering Paragraph (8)(c), provides Table 7 which compares the Company's 2012 business plan budget filed on January 31, 2012, to actual 2012 program performance.

In 2012, the Company delivered preliminary results of 49,781,945 kWh in first year energy savings against the 2012 business plan forecast savings of 38,176,915 kWh, a positive variance of approximately 30 percent.

Table 7: Washington Business Plan Budget compared to Actual[20]

Program	kWh/Yr Savings (at site)	kWh/Yr Savings (at generator)	Gross aMW Savings (at gen)	Estimated Systems Benefit Expenditures	kWh/Yr Savings (at site)	kWh/Yr Savings (at generator)	Gross aMW Savings (at gen)	Systems Benefits Charge Expenditures
Low Income Weatherization (114)	270,480	294,463	0.03	$ 824,000	206,080	226,008	0.03	$ 606,108
Refrigerator Recycling (107)	1,423,390	1,549,602	0.18	$ 300,000	1,075,254	1,179,231	0.13	$ 247,055
Home Energy Savings (118)	7,371,151	8,024,751	0.92	$ 1,570,825	6,051,410	6,636,581	0.76	$ 1,135,181
Home Energy Reports					1,778,482	1,950,461		$ 100,257
Total Residential	**9,065,021**	**9,868,816**	**1.13**	**$ 2,694,825**	**9,111,225**	**9,992,281**	**1.14**	**$ 2,088,600**
Energy FinAnswer (125)	1,463,143	1,590,861	0.18	$ 498,000	2,190,303	2,399,061	0.27	$ 473,104
FinAnswer Express (115)	4,978,230	5,412,780	0.62	$ 1,057,000	9,982,986	10,934,464	1.25	$ 2,092,466
Total Commercial	**6,441,373**	**7,003,641**	**0.80**	**$ 1,555,000**	**12,173,289**	**13,333,525**	**1.52**	**$ 2,565,569**
Energy FinAnswer (125)	8,422,543	9,057,855	1.03	$ 2,276,000	9,890,551	10,697,719	1.22	$ 1,900,245
FinAnswer Express (115)	1,944,427	2,091,095	0.24	$ 413,000	1,984,235	2,147,640	0.24	$ 558,612
Total Industrial	**10,366,970**	**11,148,950**	**1.27**	**$ 2,689,000**	**11,874,786**	**12,845,359**	**1.47**	**$ 2,458,856**
Energy Education in Schools (113)				$ 436,000	-		-	$ 252,946
Northwest Energy Efficiency Alliance	8,413,980	9,160,048	1.05	$ 1,157,000	12,439,200	13,610,780	1.55	$ 1,218,412
Distribution Efficiency	928,735	972,360	0.11	$ 569,000	-	-	-	$ 146,618
Production Efficiency	23,100	23,100	0.003	$ 427,000	-	-	-	$ 231,495
Total - Conservation Programs	**35,239,179**	**38,176,915**	**4.36**	**$ 9,527,825**	**45,598,500**	**49,781,945**	**5.68**	**$ 8,962,496**
Customer Outreach/Communication				$ 250,000				$ 209,022
Program Evaluations				$ 635,000				$ 751,468
Potential Study Update/Analysis				$ 80,000				$ 125,843
Measure Data Documentation				$ 200,000				$ 8,021
Res. Admin of Prior Programs				$ 1,500				$ 1,586
Total System Benefits Charge Expenses	**35,239,179**	**38,176,915**	**4.36**	**$ 10,694,325**	**45,598,500**	**49,781,945**	**5.68**	**$ 10,058,436**

[20] SBC expenditures represents total program costs for savings claimed 2012

Residential Programs

The residential energy efficiency portfolio is comprised of four programs; *Home Energy Savings, Home Energy Reports, Residential Refrigerator Recycling, Low Income Weatherization, and NEEA.* As shown in Table 8, the residential portfolio was cost effective based on four of the five standard cost effectiveness tests for the reporting period. The ratepayer impact test was less than 1.0 indicating that there is near term upward pressure placed on the price per kilowatt-hour given a reduction in sales.

Table 8
Long-term Cost Effectiveness for Residential Portfolio[21]

	B/C Ratio	Net Benefits
Total Resource Test plus 10% – total resource cost with the addition of environmental and non-energy benefits	3.34	$10,487,460
Total Resource Cost Test – effects on both participants and non-participants	3.06	$9,243,446
Utility Cost Test – effect on customers	3.76	$9,136,684
Participant Cost Test – effect on participants	7.01	$10,999,034
Rate Payer Impact – effect on the cost per kilowatt-hour of sales	0.88	$(1,692,500)

Home Energy Savings

The *Home Energy Savings* program is designed to provide access to and incentives for more efficient products and services installed or received by customers in new or existing homes, multi-family housing units or manufactured homes. Program participation by measure is provided in Table 9.

[21] Includes NEEA savings and Non-Energy Benefits

Table 9
Eligible Program Measures (Units)

Measures	2012 Total Units
Electric Water Heater	90
Ceiling Fan	12
Clothes Washer	1,309
Dishwasher	405
Freezer	32
Light Fixture	448
Refrigerator	409
Room Air Conditioner	31
Heat Pump Water Heater	1
Central Air Conditioner Best Practice Installation	9
Central Air Conditioner Equipment	27
Central Air Conditioner Proper Sizing	8
Duct Sealing	27
Duct Sealing & Insulation	6
Electric System to Heat Pump Conversion	56
Heat Pump Best Practice Installation	44
Heat Pump to Heat Pump Upgrade	48
Heat Pump Tune-up	6
Heat Pump, Single-Head, Ductless	7
Insulation-Attic	140,793
Insulation-Floor	47,928
Insulation-Wall	29,701
Windows	21,954
New Homes - Builder Option Package with Heat Pump	3
New Homes - Energy Efficient Dishwasher	11
New Homes - Energy Efficient Refrigerator	11
New Homes - Windows	1,392
Lighting - CFL's	224,378
Lighting - LED Downlights	736
Grand Total	469,882

Program performance results for January 1, 2012 – December 31, 2012 are provided in Table 10 below.

Table 10
Long-term Cost Effectiveness for Home Energy Savings[22]

	B/C Ratio	Net Benefits
Total Resource Test plus 10% – total resource cost with the addition of environmental and non-energy benefits	2.03	$2,431,407
Total Resource Cost Test – effects on both participants and non-participants	1.88	$2,067,671
Utility Cost Test – effect on customers	3.20	$2,502,178
Participant Cost Test – effect on participants	2.48	$2,701,538
Rate Payer Impact – effect on the cost per kilowatt-hour of sales	0.85	($633,867)

Program Management

The program manager is responsible for the *Home Energy Savings* program and *Refrigerator Recycling* program in Washington, California, Idaho, Utah, and Wyoming. For each program and in each state the program manager is responsible for the cost effectiveness of the program, identifying and contracting with the program administrator through a competitive bid process, establishing and monitoring program performance and compliance, and recommending changes in the terms and conditions set out in the tariff.

Program Administration

The *Home Energy Savings* program is administered by PECI (formerly Portland Energy Conservation, Inc.). PECI was incorporated by the City of Portland, Oregon in 1979 to carry out private sector aspects of the Portland Energy Conservation Policy. In 1984, the Company was spun-off from the City of Portland, becoming a private, non-profit corporation. PECI has been designing and implementing energy efficiency programs since 1990.

PECI is responsible for the following:

- Retailer and trade ally engagement - PECI identifies, recruits, supports and assists retailers to increase the sale of energy efficient lighting, appliances and electronics. PECI enters into promotion agreements with each lighting manufacturer and retailer for the promotion of discounted compact fluorescent lights ("CFLs"). The agreements include specific retail locations, lighting products receiving incentives and not-to-exceed annual budgets. Weatherization and heating, ventilation, and air conditioning ("HVAC") contractors engaged with the program are provided with program materials, training, and regular updates.
- Inspections – PECI recruits and hires inspectors to verify on an on-going basis the installation of measures. A summary of the inspection process is in Appendix 3.
- Incentive processing and call-center operations – PECI receives all requests for incentives, determines whether the applications are completed, works directly with

[22] Includes Non-Energy Benefits

customers when information is incorrect and/or missing from the application and processes the application for payment.

- Program specific customer communication and outreach – A summary of the communication and outreach conducted by PECI on behalf of the Company is outlined in the Communication, Outreach, and Education section.

Infrastructure

Through the program the Company has increased the number of retailers carrying CFLs to over 20. Table 11 lists the lighting retailers participating in the program.

Table 11[23]
Retail Stores – Compact Fluorescent Lights

Retailer	City
Ace Hardware #14965	Walla Walla
Big Lots #4558	Yakima
Corner Grocery & Hardware	Yakima
Costco #1013	Union Gap
Habitat for Humanity ReStore #2	Yakima
Haggen #35 TOP Foods	Yakima
Home Depot #4727	Yakima
Home Depot #4735	College Place
Hometown Ace Hardware #11909	Yakima
Lowe's #160	Union Gap
Oak Creek Ace Hardware #14426	Naches
Platt Electric Supply #24	Grandview

Retailer	City
Platt Electric Supply #28	Walla Walla
Platt Electric Supply #37	Yakima
Roy's Ace Hardware #10640	Yakima
Stein's Ace Hardware #7047	Yakima
True Value Hardware - C&H	Yakima
True Value Hardware - Country Farm and Garden	Yakima
True Value Hardware - Helms	Selah
Walgreens #12053	Yakima
Walgreens #12275	Yakima
Walgreens #9911	Yakima
Wal-Mart - Supercenter #5078	Yakima
Wal-Mart #2269	Yakima

[23] To be considered for participation for discounted CFLs, sales coming from Pacific Power customers must be a significant majority of total sales.

Over a dozen local and national retailers now consistently promote high efficiency appliances on behalf of the program. Table 12 lists the appliance retailers participating in the program.

Table 12
Retail Stores – Appliances

Retailer	City	Ceiling Fan	Clothes Washer	Dishwasher	Electric Water Heater	Fixture	Freezer	Refrigerator	Room AC
Inland Pipe & Supply	Yakima				✓				
Adams Quality Plumbing*	Walla Walla								
All Your Building Needs*	Pomeroy								
Bemis	Yakima		✓	✓			✓	✓	✓
Best Buy #831	Yakima		✓	✓			✓	✓	✓
Chris Johnson Plumbing	Walla Walla				✓				
Ferguson Enterprises, Inc.	Walla Walla		✓						
Helms True Value	Selah				✓	✓			
Home Depot #4727	Yakima	✓	✓	✓	✓	✓	✓	✓	✓
Home Depot #4735	College Place	✓	✓	✓	✓	✓	✓	✓	✓
Lowe's of Union Gap	Union Gap	✓	✓	✓	✓	✓	✓	✓	✓
Sears #2029	Union Gap		✓	✓	✓		✓	✓	✓
Sears #3088	Sunnyside		✓	✓		✓	✓	✓	
Sears #2599	Walla Walla		✓	✓	✓			✓	✓
Sears #6914**	Walla Walla								
Selah Lighting Company	Selah					✓			
Suffield Furniture Company	Dayton		✓				✓	✓	
TV Towne	Yakima		✓						

*These are participating stores who had no redemptions submitted to the program in 2012.

**This is a new store location, and had no redemptions in 2012. The previous Walla Walla Sears burned down. See Sears store #2599.

Table 13 and Table 14 list the HVAC contractors and weatherization (window and insulation) contractors.

Table 13
HVAC Contractors

Contractor Name	City	Central Air Conditioner (CAC)	CAC Best Practices Installation	Heat Pump (HP) Upgrade	HP Conversion	HP Best Practices Installation	Single-head Ductless HP	HP Tune-up	Duct Sealing and Duct Insulation
AccuTemp Heating and Air Conditioning	Yakima	✓	✓	✓	✓	✓	✓	✓	✓
All Phase Refrigeration & Heating	Kennewick							✓	
All Seasons Heating & Air Conditioning	Yakima	✓		✓	✓		✓		
Allard Enterprises	Yakima	✓	✓	✓	✓	✓	✓	✓	✓
Apollo Sheet Metal Inc.	Kennewick	✓	✓	✓	✓	✓	✓	✓	✓
Campbell and Company	Pasco	✓	✓	✓	✓	✓	✓	✓	✓
Central Mechanical Services	Yakima	✓	✓	✓	✓	✓	✓	✓	✓
CK Home Comfort Systems	Grandview	✓	✓	✓	✓	✓	✓	✓	✓
Clark County Mechanical	Vancouver	✓	✓	✓	✓	✓	✓	✓	✓
College Place Heating and AC	College Place	✓	✓	✓	✓	✓	✓	✓	✓
Comfort Pro's	Yakima	✓	✓	✓	✓	✓	✓	✓	✓
Darby Heating & Air	Richland	✓		✓	✓		✓		
Dave's Heating and Air Conditioning Inc.	Yakima	✓	✓	✓	✓	✓	✓	✓	✓
Dayco Heating	Kennewick	✓	✓	✓	✓	✓	✓	✓	✓
Delta Heating & Cooling Inc.	Richland	✓	✓	✓	✓	✓	✓	✓	✓
E-Star Northwest LLC	Sequim	✓	✓	✓	✓	✓	✓	✓	✓
Farwest Climate Control	Yakima	✓	✓	✓	✓	✓	✓	✓	✓
Four Season Heating and A/C	Yakima	✓	✓	✓	✓	✓	✓	✓	✓
Grassi Refrigeration	Walla Walla	✓		✓	✓		✓		
Intermountain West Insulation	Kennewick								✓
J and B Heating & AC	Yakima	✓		✓	✓		✓		
McCarl Heating & Air	Yakima	✓		✓	✓		✓		
Mike's Heating & Air	Pomeroy	✓	✓	✓	✓	✓	✓	✓	✓
Miller & Trujillo Heating and AC, LLC.	Zillah	✓	✓	✓	✓	✓	✓	✓	✓
Olmstead Electric	Walla Walla	✓	✓	✓	✓	✓	✓	✓	✓
One Hour Heating & Air Conditioning	Ellensburg	✓	✓	✓	✓	✓	✓	✓	✓

Contractor Name	City	Central Air Conditioner (CAC)	CAC Best Practices Installation	Heat Pump (HP) Upgrade	HP Conversion	HP Best Practices Installation	Single-head Ductless HP	HP Tune-up	Duct Sealing and Duct Insulation
Platte Heating	Yakima	✓		✓	✓		✓	✓	
Quality Comfort	Yakima	✓		✓	✓		✓		
Schaefer Refrigeration Inc.	Walla Walla	✓		✓	✓		✓		
Smith Insulation	Walla Walla								✓
The Ductologist	Renton								✓
ThermalWise Heating and Refrigeration, LLC.	Walla Walla		✓			✓		✓	✓
Thermex Valley Heating and AC	Yakima	✓	✓	✓	✓	✓	✓	✓	✓
TJ's Refrigeration Heating and Air	Sunnyside	✓		✓	✓		✓		
TNG Heating and Refrigeration, LLC.	Toppenish	✓	✓	✓	✓	✓	✓	✓	✓
Total Comfort Solutions, LLC.	Walla Walla	✓		✓	✓	✓	✓	✓	
Vance Heating and AC	Yakima	✓		✓	✓		✓		

Table 14
Weatherization Contractors

Contractor Name	City	Insulation Attic	Insulation Floor	Insulation Wall	Windows
Allard Enterprises	Yakima	✓	✓	✓	
Central Valley Glass	Yakima				✓
Chon Insulation and Drywall	Walla Walla	✓	✓	✓	
Comfort Pro's	Yakima	✓	✓	✓	✓
Dave's Heating & AC	Yakima	✓	✓	✓	
Don Jordan Energy Systems	Yakima	✓	✓	✓	
E-Star Northwest LLC	Sequim	✓	✓	✓	
Farwest Climate Control	Yakima				✓
High Desert Glass	Prosser				✓
Intermountain West Insulation	Kennewick	✓	✓	✓	✓
Jackson Siding and Windows	Walla Walla				✓
McCarl Heating & Air	Yakima	✓	✓	✓	✓
McKinney Glass	Yakima				✓
Miller Glass	Yakima				✓
Patrick Construction	Naches	✓	✓	✓	✓
Pro Build	Yakima	✓	✓	✓	
Smith Insulation	Walla Walla	✓	✓	✓	✓
The Ductologist	Renton	✓	✓	✓	
West Valley Glass and Window	Yakima				✓
Windows Walla Walla	Walla Walla				✓

Demographics

Approximately 63 percent of all *Home Energy Savings* incentive applications for the reporting period (January 1, 2012 – December 31, 2012) were received from customers located in Yakima and Walla Walla. Table 15 summarizes customer applications by community.

Table 15
Customer Applications by City

City	Percent of Total Appliance & Fixture Applications	Percent of Total HVAC Applications	Percent of Total Weatherization Applications	Percent of Total: All Applications
Yakima	49.0%	42.8%	42.9%	47.9%
Walla Walla	14.1%	17.8%	25.9%	15.7%
Selah	9.0%	9.1%	11.0%	9.2%
Sunnyside	3.3%	3.8%	1.1%	3.1%
College Place	2.5%	5.3%	3.2%	2.8%
Wapato	3.0%	1.0%	0.7%	2.6%
Zillah	2.6%	1.9%	2.5%	2.6%
Moxee	2.4%	1.0%	1.4%	2.2%
Toppenish	2.4%	0.5%	0.7%	2.0%
Grandview	1.8%	3.8%	1.4%	1.9%
Union Gap	1.8%	1.9%	1.4%	1.8%
Dayton	1.2%	1.9%	1.8%	1.3%
Naches	1.4%	1.0%	0.7%	1.3%
Tieton	1.0%	1.0%	0.7%	1.0%
Granger	1.0%		0.7%	0.9%
Waitsburg	0.6%	0.5%	2.1%	0.7%
Cowiche	0.7%	0.5%	0.4%	0.6%
Touchet	0.4%	1.9%		0.5%
Pomeroy	0.4%	1.0%		0.4%
Burbank	0.0%	2.9%	1.1%	0.4%
Outlook	0.3%			0.3%
Prescott	0.2%			0.2%
Harrah	0.2%			0.2%
Mabton	0.1%		0.4%	0.2%
Parker	0.2%			0.2%
Buena	0.1%			0.1%
Dixie	0.1%			0.1%
White Swan	0.05%	0.5%		0.1%

Evaluation

In January 2012, a process and impact evaluation was completed by a third party evaluator for program years 2009-2010. The impact evaluation provided data on the gross realized savings and the NTG ratio[24]. The process evaluation investigated participant satisfaction, implementation and delivery processes, marketing methods and quality assurance. The Company's response to the recommendations and web link to the evaluation report are included in Appendix 4.

Home Energy Reports

The *Home Energy Reports* program began in August 2012. *Home Energy Reports* is designed to better inform residential customers about their energy usage by providing comparative energy usage data for similar homes located in the same geographical area. In addition, the report provides the customer with information on how to decrease their energy usage. Equipped with this information, customers can modify behavior and/or make structural equipment, lighting or appliance changes to reduce their overall electric energy consumption.

Starting in August 2012, customers received a monthly *Home Energy Report* for the first three months and thereafter the report delivery cycle became bi-monthly. Paper reports are mailed out following the customers' billing cycle, which is a five-week period. Customers may opt-out of the mailed paper copy of the report and request an electronic version delivered via email.

The report provides a clear, graphical representation of energy use over time and provides the comparison to the energy usage of similar homes within a one mile radius. The program is covering a 41-month period (through December 2015) to assess the performance of the program in the Company's service territory. Each participating customer will receive 21 reports over the term of the program. Reports were provided to approximately 13,500 customers. This count will decrease (due opt-out/move-out rate) over the program's 41-month term.

A total of 13,500 customers were randomly selected to receive the reports. Program participants are made up of customers with an annual average electrical energy usage of 20,000 kilowatt hours ("kWh"). To achieve this, the upper bound annual average is approximately 29,000 kWh and the lower bound annual average is 13,500 kWh. As degradation occurs over the program period, the average usage of the population may also change. The change in average usage will be measured and verified in the program evaluation (program month 18 and 36). Participating customers have access to a Web portal containing the same information about their usage and past usage. The Web portal has other functions such as a home energy audit tool and suggestions to improve energy conservation and efficiency of their home.

Reported program savings are included below in Table 16. The long-term cost effectiveness of the *Home Energy Reports* program is detailed in Table 17.

[24] NTG is a factor representing net program savings divided by gross program savings that is applied to gross program impacts. This ratio is most often calculated as NTG =1 – freeridership rate + spillover rate.

Table 16
Reported 2012 Program Savings (kWh @site)

Month	July	August	September	October	November	December	Total
Savings (kWh)	145,878	160,226	296,771	361,663	435,033	378,910	1,778,482

Table 17
Long-term Cost Effectiveness for Home Energy Reporting

	B/C Ratio	Net Benefits
Total Resource Test plus 10% – total resource cost with the addition of environmental and non-energy benefits	1.56	$56,603
Total Resource Cost Test – effects on both participants and non-participants	1.42	$42,343
Utility Cost Test – effect on customers	1.42	$42,343
Participant Cost Test – effect on participants	N/A	$153,483
Rate Payer Impact – effect on the cost per kilowatt-hour of sales	0.56	($111,140)

Program Management

The program manager is responsible for the *Home Energy Reports* program in Washington and Utah. The program manager is also responsible for the *New Homes* and *Cool Keeper* programs in Utah. For each program and in each state the program manager is responsible for the cost effectiveness of the program, identifying and contracting with the program administrator through a competitive bid process, establishing and monitoring program performance and compliance, and recommending changes in the terms and conditions set in each state's compliance requirements.

Program Administration

The *Home Energy Reports* program is administered by Opower. Opower is a privately held Software-as-a-Service company that partners with utility providers around the world to promote energy efficiency. Opower works with more than 75 utility companies in 31 US states and five other countries. Opower's software creates individualized energy reports for utility customers that analyze their energy usage and offers recommendations on how to save energy and money by making small changes to their energy consumption. The Company contracts with Opower to provide, guaranteed energy savings, software services, and printing and delivery of energy reports to customers.

Opower is responsible for the following:

- Selecting Qualifying Customers – Opower conducts an analysis to identify qualifying customers that are randomly selected into the treatment and control groups (verified by a third party.
- Customer Comparison Analysis– Opower conducts statistical analysis to perform pattern recognition in order to derive actionable insights to selected customers.
- Energy Report Delivery – Provide statistical analysis to customers via Home Energy Assessment report via mail hardcopy and email (to limited customers.)

- Web Portal Delivery – Opower operates and maintains a customer Web portal that participants may visit for additional information about their energy usage and saving opportunities.

A third party contractor will evaluate Opower's reported savings at 18-months (February 2014) and at 36-months (December 2015.) The results from the 18-month evaluation will be incorporated in the 2012-2013 Conversation Report filed by June 1, 2014.

Refrigerator Recycling

The *Refrigerator Recycling*[25] ("See ya later, refrigerator®") program is designed to decrease electricity use (kWh) through voluntary removal and recycling of inefficient refrigerators and freezers. Participants receive a $30 incentive for each qualifying refrigerator or freezer recycled through the program and an energy-saving kit which includes two compact fluorescent lamps ("CFLs"), a refrigerator thermometer card, energy-savings educational materials, and information on other efficiency programs relevant to residential customers.

Program participation by measure is provided in Table 18.

Table 18
Eligible Program Measures (Units)

Measures	2012 Total
Refrigerator Recycling	1,229
Freezer Recycling	282
Energy Savings Kit	1,418

Program performance results for January 1, 2012 – December 31, 2012 are provided in the Table 19 below.

Table 19
Long-term Cost Effectiveness for Refrigerator Recycling

	B/C Ratio	Net Benefits
Total Resource Test plus 10% – total resource cost with the addition of environmental and non-energy benefits	3.07	$400,984
Total Resource Cost Test – effects on both participants and non-participants	2.79	$346,938
Utility Cost Test – effect on customers	2.19	$293,398
Participant Cost Test – effect on participants	NA	$570,510
Rate Payer Impact – effect on the cost per kilowatt-hour of sales	0.71	($223,571)

In 2012, more than 93 tons (186,750 lbs) of steel, 3 tons (5,976 lbs) of aluminum and copper, 15 tons (29,880 lbs) of plastics were recycled, reducing landfill deposits by an amount sufficient to cover an entire football field more than two and a half feet deep. In addition, the chlorofluorocarbons (greenhouse gases) collected and destroyed during recycling equates to

[25] Also known as "See ya later, refrigerator®" ("SYLR")

approximately 3.5 tons (5,337.4 metric tons for 1,494 units) of carbon dioxide equivalents per unit, equivalent to the annual emissions of the average car in the US.

Program Management

The program manager is responsible for the *Refrigerator Recycling* program and *Home Energy Savings* program in Washington, California, Idaho, Utah, and Wyoming. For each program and in each state the program manager is responsible for the cost effectiveness of the program, identifying and contracting with the program administrator through a competitive bid process, establishing and monitoring program performance and compliance, and recommending changes in the terms and conditions set out in the tariff.

Program Administration

The *Refrigerator Recycling* program is administered by JACO Environmental ("JACO"). JACO started over 20 years ago in Snohomish County, north of Seattle, Washington. JACO has grown to become one of the largest recyclers of house-hold appliances in the United States. The Company contracts with JACO to provide customer scheduling, pick-up, incentive processing and marketing services for the See ya later, refrigerator® program.

JACO also ensures that over 95 percent of the components and materials of the discarded appliance are either recycled for beneficial uses or eliminated in an environmentally responsible way. The remaining 5 percent can then be productively used as "fluff" to facilitate the decomposition of biodegradable landfill material.

JACO Environmental is responsible for the following:

- Customer and field services – JACO handles all customer and field service operations for the program. Pick-up of refrigerators and freezers from customers and transporting the units to the de-manufacturing facility is done by JACO.
- Incentive processing and call-center operations – All customer service calls, pick-up scheduling and incentive processing are handled by JACO.
- Program specific customer communication and outreach – Working in close coordination with the Company, JACO handles all the marketing for the program. The program is marketed through bill inserts, customer newsletters and TV, newspaper and online advertising.

Separate third party contractors are employed to ensure JACO's performance. The summary of the inspection process is included in Appendix 3.

Infrastructure

Refrigerators and freezers are trucked to a JACO facility in Everett, Washington for disassembly and recycling.

Evaluation

In January 2012, a process and impact evaluation was completed by a third party evaluator for program years 2009-2010. The impact evaluation provided data on the gross realized savings and the NTG ratio. The process evaluation investigated participant satisfaction, implementation and delivery processes, marketing methods and quality assurance. The Company's response to the recommendations and web link to the evaluation report are included in Appendix 4.

Low Income Weatherization

The *Low Income Weatherization* program is designed to leverage funds with state and federal grants so that energy efficiency services can benefit income eligible households at no cost.

Program participation and number of homes receiving specific measures is provided in Table 20.

Table 20
Eligible Program Measures (Units)

	2012 Total
Participation – Total # of Completed/Treated Homes	112
Number of Homes Receiving Specific Measures	
Ceiling Insulation	67
Floor Insulation	97
Infiltration	107
Water Pipe Insulation and Sealing	106
Compact Fluorescent Light bulbs	105
Replacement Refrigerators	13
Caulk/Weather-stripping	65
Wall Insulation	36
Attic Ventilation	45
Duct Insulation	58
Dehumidifier	1
Showerheads	66
Water Heater Repair	12
Ground Cover	93
Aerators	81
Timed Thermostat	14
Fluorescent Light Fixture	1
Repairs	52

Program performance results for January 1, 2012 – December 31, 2012 are provided in Table 21.

Table 21
Long-term Cost Effectiveness for Low Income Weatherization with Non Energy Benefits

	B/C Ratio	Net Benefits
Total Resource Test plus 10% – total resource cost with the addition of environmental and non-energy benefits	1.37	$227,075
Total Resource Cost Test – effects on both participants and non-participants	1.32	$195,994
Utility Cost Test – effect on customers	0.52	($291,735)
Participant Cost Test – effect on participants	NA	$811,147
Rate Payer Impact – effect on the cost per kilowatt-hour of sales	0.36	($552,066)

Program Management

The program manager is responsible for the *Low Income Weatherization* programs in Washington, California, Idaho, Utah, and Wyoming; the bill discount programs in Washington, California, and Utah; and energy assistance programs in Washington, California, Idaho, Oregon, Utah, and Wyoming. For each program and in each state, the program manager is responsible for the cost effectiveness of the energy efficiency programs, partnerships, and agreements in place with local agencies that serve income eligible households, establishing and monitoring program performance and compliance, and recommending changes in the terms and conditions set out in the tariff.

Program Administration

Pacific Power partners with three local non-profit agencies to provide weatherization services to income-qualifying households throughout its Washington service territory. The leveraging of Pacific Power funding along with Washington Match Maker Program funds allows the agencies to provide these energy efficiency services to more households at no cost to participating customers. The Company provides rebates to partnering agencies for 50 percent of the cost of services while Match Maker funds are available, and will cover 100 percent of costs when these state funds are depleted. All homes were funded at the 50 percent level in 2012. Participants qualify if they are homeowners or renters residing in single-family homes, manufactured homes, or apartments. Over 7,000 homes have been completed since the program began in the mid-1980s.

By contract with the Company, the agencies are responsible for the following:

- Income Verification – Agencies determine participants are income eligible based on Washington Department of Commerce guidelines. Households interested in obtaining weatherization services apply through the agencies. The current income guidelines are included in Appendix 3.
- Energy Audit – Agencies use a U.S. Department of Energy approved audit tool or priority list to determine the cost effective measures to install in the participant's homes (audit results must indicate a savings to investment ratio of 1.0 or greater).
- Installation of Measures – Agencies install the energy efficiency measures.

- Post Inspections – Agencies inspect 100 percent of completed homes. A sample of 5 -10 percent are inspected by a Pacific Power inspector. See Appendix 3 for verification summary.
- Billing Notification - Agencies are required to submit a billing to Company within 45 days after job completion. A homeowner agreement and invoice form indicating the measures installed and associated cost is submitted on each completed home.

Infrastructure

Pacific Power has agreements in place with three non-profit weatherizing agencies. These agencies include Blue Mountain Action Council located in Walla Walla, Northwest Community Action Center in Toppenish, and Opportunities Industrialization Center of Washington in Yakima. These three agencies serve the entire Pacific Power Washington service area.

Evaluation

In September 2012, a process and impact evaluation was completed by a third party evaluator for March 2009 – February 2011. The impact evaluation provided data on the gross realized savings and the net-to-gross (NTG) ratio. The process evaluation investigated participant satisfaction, implementation and delivery processes, marketing methods, and quality assurance. The Company's response to the recommendations and web link to the evaluation report are included in Appendix 4.

Northwest Energy Efficiency Alliance

The *Northwest Energy Efficiency* Alliance (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).

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 3.01 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.

Program performance for 2012 are being reported based on NEEA's preliminary results for Pacific Power of 13,611 megawatt hours for the Company's funding investment of approximately $1.2m. Consistent with the reporting convention approved in Docket UE-111880, the savings represent Pacific Power's portion of Total Regional Savings less the Company's local program savings (adjustment to total movement in the market baseline for measures impacted by NEEA's efforts to account for savings already captured and reported through Pacific Power's Washington programs). The breakdown of the preliminary 2012 reported savings by sector is as follows in Table 22:

Table 22
Preliminary 2012 Reported Savings by Sector

Sector	Megawatt Hours	Percent
Residential	8,838	65%
Commercial	2,783	20%
Industrial	1,990	15%

The primary initiatives generating savings by sector as a percent of total savings is as follows in Table 23:

Table 23
Initiatives Savings by Sector

Initiative/Measures	Residential	Commercial	Industrial
Televisions	65%		
Appliances	21%		
Lighting	10%		
Efficient Homes	2%		
Ductless Heat Pumps	1%		
Codes	1%	16%	
Desktop		60%	
Building Operators Certification		10%	
Real Estate		7%	
Health Care		7%	
Drive Power			52%
Food Processors			33%
Evaporative Fans			10%
Pneu-Logic (SAV_AIR)			5%
Total	**100%**	**100%**	**100%**

Program Administration

The Company has a member on the NEEA board of directors as well as representatives on each of the sector advisory boards, residential, commercial and industrial. The Company also has representation on NEEA's broader Regional Portfolio Committee and participants in the regional Northwest Research Group. Collectively the representatives work collaboratively with the other funders, advisory group members, and NEEA to direct the efforts of NEEA in the best interest of the region in the achievement of the region's market transformation objectives.

Commercial and Industrial Programs

The commercial and industrial energy efficiency portfolio is comprised of two programs, *FinAnswer Express* and *Energy FinAnswer*. The commercial and industrial portfolio was cost effective based on five of the five standard cost effectiveness tests for 2012 as provided in Table 24 below.

Table 24
Cost Effectiveness for Commercial and Industrial Portfolio

	B/C Ratio	Net Benefits
Total Resource Test plus 10% – total resource cost with the addition of environmental and non-energy benefits	2.11	$12,991,567
Total Resource Cost Test – effects on both participants and non-participants	1.92	$10,751,193
Utility Cost Test – effect on customers	4.46	$17,379,310
Participant Cost Test – effect on participants	2.08	$10,257,294
Rate Payer Impact – effect on the cost per kilowatt-hour of sales	1.02	$493,899

FinAnswer Express

The *FinAnswer Express* program is designed to assist commercial, industrial, and agricultural customers improve the efficiency of their new or replacement lighting, HVAC, motors, irrigation, building envelope, and other equipment by providing prescriptive or pre-defined incentives for the most common efficiency measures listed in the program incentive tables.[26] The program also includes custom incentives and technical analysis services for measures not listed in the program incentive tables that improve electric energy efficiency. The program provides incentives for both new construction and retrofit projects, and is designed to operate in conjunction with the Energy FinAnswer program.

Program participation by measure group is provided in Table 25.

Table 25
Installed Program Measures (applications)

Measure Groups	2012 Total
Appliance	1
Envelope	4
Food Service	3
HVAC	4
Lighting	265
Motor	9
Office	1
Compressed Air	3
Farm & Dairy	3
Irrigation	14
Program Totals	307

[26] Incentive tables can be found online at http://www.pacificpower.net/bus/se/epi/washington/sc.html

Program savings by measure group is provided in Table 26.

Table 26
Installed Program Measures (kWh/year @ site)

Measure Groups	2012 Total
Appliance	42
Envelope	5,020
Food Service	57,454
HVAC	15,783
Lighting	11,069,397
Motor	340,459
Office	216,580
Compressed Air	108,899
Farm & Dairy	41,385
Irrigation	112,202
Program Totals	11,967,220

Program performance results for January 1, 2012 – December 31, 2012 are provided in Table 27 below.

Table 27
Long-term Cost Effectiveness for FinAnswer Express

	B/C Ratio	Net Benefits
Total Resource Test plus 10% – total resource cost with the addition of environmental and non-energy benefits	1.88	$5,919,156
Total Resource Cost Test – effects on both participants and non-participants	1.71	$4,769,671
Utility Cost Test – effect on customers	4.34	$8,843,772
Participant Cost Test – effect on participants	1.91	$4,911,385
Rate Payer Impact – effect on the cost per kilowatt-hour of sales	0.99	($141,714)

Program Management

The program manager is responsible for the program in Washington, California, Idaho, Utah, and Wyoming. For each state the program manager is responsible for the cost effectiveness of the program, identifying and contracting with the program administrators through a competitive bid process, program marketing, establishing and monitoring program performance and compliance, and recommending changes in the terms and conditions of the program.

Program Administration

The program is primarily marketed through local trade allies who receive support from one of two program administrators. The Company contracts with Nexant, Inc. (“Nexant”) and Cascade Energy (“Cascade”) for trade ally coordination, training and application processing services for commercial measures and industrial/agricultural measures respectively.

Nexant services include design, implementation, and evaluation of commercial, industrial, and residential energy efficiency programs in the United States. The Company contracts with Nexant to provide trade ally coordination and application processing services for the commercial measures in the FinAnswer Express program.

Cascade is an industrial energy efficiency consulting firm providing both retrofit and new construction capital studies; tune-ups and retro-commissioning; utility demand-side management program design and administration; research and development; and energy management services. The Company contracts with Cascade Energy to provide trade ally coordination and application processing services for the industrial and agricultural measures in the FinAnswer Express program.

Nexant and Cascade are responsible for the following:

- Trade ally engagement – Nexant and Cascade identify, recruit, train, support and assist trade allies to increase sales and installation of energy efficient equipment at qualifying business customer facilities.
- Incentive processing and administrative support – Nexant and Cascade handle incoming inquiries as assigned, process FinAnswer Express incentive applications, develop and maintain simplified analysis tools and provide program design services, evaluation and regulatory support upon request.
- Inspections – Nexant and Cascade verify on an on-going basis the installation of measures. Summary of the inspection process is in Appendix 4.

In addition, the Company's project managers coordinate FinAnswer Express projects and provide customers with program services and incentives using the energy engineering consultants described further in the Energy FinAnswer program section.

Infrastructure

To help increase and improve the supplier and installation contractor infrastructure for energy-efficient equipment and services, the Company established and developed trade ally networks for lighting, HVAC, motors and irrigation. This work includes identifying and recruiting trade allies, providing program and technical training and providing sales support on an ongoing basis. The current lists of the trade allies who have applied and been approved as participating vendors are posted on the Company website and is included as Appendix 5 to this report. Customers are not required to select a vendor from these lists to receive an incentive.

The total number of participating trade allies is currently 85. The current counts of participating trade allies by technology are in the Table 28.

Table 28
Participating Trade Allies[27]

	Lighting trade allies	HVAC trade allies	Motors trade allies
List dated 2/4/2013	51	28	42

Evaluation

In December 2012, a process and impact evaluation was completed by a third party evaluator for program years 2009-2011. The impact evaluation provided data on the gross realized savings and the NTG ratio. The process evaluation investigated participant satisfaction, implementation and delivery processes, marketing methods and quality assurance. The Company's response to the recommendations and web link to the evaluation report are included in Appendix 4.

Energy FinAnswer

The *Energy FinAnswer* program is offered to commercial (buildings 20,000 square feet and larger) and industrial customers. The program is designed to target comprehensive projects requiring project specific energy savings analysis and operates in concert with the more streamlined FinAnswer Express program. The program provides Company-funded energy engineering, incentives of $0.15 per kWh for first year energy savings and $50 per kW of average monthly demand savings, up to a cap of 60 percent of the approved project cost. In addition to customer incentives, the program provides design team honorariums (a finder fee for new construction projects) and design team incentives for new construction projects exceeding Washington State Building Code Chapter 51-50 WAC International Building Code 2009 Edition code by at least 10 percent.

Projects completed in the report years are provided in Table 29.

Table 29
Projects Completed

	2012 Total
Energy FinAnswer Commercial	10
Energy FinAnswer Industrial	25
Total Projects Completed	35

Program participation by measure group is provided in Table 30.

[27] Some trade allies may participate in more than one technology so the count of unique participating firms is less than the total count provide above.

Table 30
Installed Program Measures

Measure Groups	2012 Total Applications	2012 Totals kWh Savings
Additional Measure	2	569,034
Building Shell	1	6,704
Compressed Air	1	35,887
Controls	3	175,238
HVAC	7	2,222,154
Irrigation	1	122,197
Lighting	2	493,512
Motors	6	799,774
Refrigeration	11	7,656,354
Program Totals	35	12,080,854

Program performance results for January 1, 2012 – December 31, 2012 are provided in Table 31 below.

Table 31
Long-term Cost Effectiveness for Energy FinAnswer

	B/C Ratio	Net Benefits
Total Resource Test plus 10% – total resource cost with the addition of environmental and non-energy benefits	2.44	$7,072,411
Total Resource Cost Test – effects on both participants and non-participants	2.21	$5,981,522
Utility Cost Test – effect on customers	4.60	$8,535,538
Participant Cost Test – effect on participants	2.32	$5,345,909
Rate Payer Impact – effect on the cost per kilowatt-hour of sales	1.06	$635,613

Program Management

The program manager is responsible for the *Energy FinAnswer* program in Washington, California, Idaho, Utah, and Wyoming; the *Self-Direction Credit* program in Utah and Wyoming; the *Agricultural Energy Services* program in Idaho; and the *Commercial & Industrial Re-Commissioning* program in Utah. The Company employs four full-time project managers[28] in support of the program manager.

Energy FinAnswer program is administered by the Company. Consequently, the program manager is responsible for the following:

- Program cost effectiveness and performance
- Ensuring the program is operated in compliance with commission tariffs and Company guidelines including but not limited to qualification of customers
- Customer communication and outreach

[28] Based on the volume of projects, temporary project managers and/or support staff are employed from time-to-time.

- Monitoring code and standard changes
- Qualification of materials and equipment
- Engineering analysis of customer opportunities
- Quality control and assurance
- Customer service, including the delivery of services and incentive
- Verification of installation and savings[29]

Infrastructure

Given the diversity of the commercial and industrial customers served by the Company, a pre-approved, pre-contracted group of engineering firms are used to perform facility specific energy efficiency analysis, quality assurance and verification. This being said, the individual projects are directly managed by one of the Company's project manager. The project manager works directly with the customer or through the appropriate community and customer account manager located in Washington. Table 32 lists the engineering firms currently under contract with the Company.

Table 32
Engineering Firms

Engineering Firm	Main Office Location
Abacus Resource Management Company	Beaverton, OR
BacGen Technologies	Seattle, WA
Cascade Energy	Cedar Hills, UT
Compression Engineering Corp	Salt Lake City, UT
Eaton – EMC Engineers	Salt Lake City, UT
EMP2 Inc	Richland, WA
ETC Group	Salt Lake City, UT
Evergreen Consulting Group	Beaverton, OR
Fazio Engineering	Milton-Freewater, OR
Glumac	Portland, OR
Group 14 Engineering	Denver, CO
GSBS Architects	Salt Lake City, UT
Interface Engineering	Portland, OR
kW Engineering Inc	Oakland, CA
PAE Consulting Engineers Inc	Portland, OR
Nexant Inc	Salt Lake City, UT
PCD Engineering Services Inc	Longmont, CO
QEI Energy Management Inc	Beaverton, OR
RHT Energy Solutions	Medford, OR
RM Energy Consulting	Pleasant Grove, UT
SBW Consulting Inc	Bellevue, WA
Sharpe Energy Solutions Inc	Ashland, OR
Solarc Architecture & Engineering Inc	Eugene, OR
Van Boerum & Frank Associates	Salt Lake City, UT

[29] Summary of inspection process is in Appendix 3.[30] www.pacificpower.net/lightingstandards

Evaluation

In December 2012, a process and impact evaluation was completed by a third party evaluator for program years 2009-2011. The impact evaluation provided data on the gross realized savings and the NTG ratio. The process evaluation investigated participant satisfaction, implementation and delivery processes, marketing methods and quality assurance. The Company's response to the recommendations and web link to access the evaluation report are included in Appendix 4.

A combination of in-depth project file reviews, interviews with facility staff, and on-site measurement and verification activities involving spot measurements and end-use metering of incented equipment informed the evaluated savings estimates for each project sampled during the evaluation.

Communications, Outreach and Education

The Company utilizes earned media, customer communications, paid media and program specific media in an effort to communicate the value of energy efficiency, provide information regarding low-cost, no-cost energy efficiency measures, and to educate customers on the availability of technical assistance, services, and incentives. The overall goal is to engage customers in reducing their energy usage through behavioral changes as well as changes in equipment, appliances and structures.

Earned Media

Earned media is managed by Pacific Power's external communications department in cooperation with the regional community managers located in Washington. "Earned media" generally refers to favorable television, radio, newspaper, or internet news coverage gained through press releases, media events, opinion pieces, story pitches, or other communication with news editors and reporters. A list of the news stories, date of publication or airing, media outlet, and web links (where available) is included in Appendix 6.

Customer Communications

As part of the Company's regular communications to its customers, newsletters across all customer classes promote energy efficiency initiatives and case studies on a regular basis. Inserts and outer envelopes featuring energy efficiency messages have also been used on a consistent basis. In 2012, the Company also issued two newsletters focused entirely on seasonal energy efficiency information (in the fall and spring).

The Company also uses its website and social media, such as Twitter and Facebook to communicate and engage customers on DSM offers and incentives.

*Paid Media/watt**smart** campaign*

In 2012, Pacific Power implemented its DSM communication and outreach campaign called ***watt***smart. This communications campaign was designed to create awareness of the importance of being energy efficient and to help increase participation in the Company's DSM programs.

Key strategies with this plan, keeping objectives and budgets in the forefront included:

- Moving all energy efficiency programs, tips, and resources under the ***watt***smart program umbrella.
- Implementing an advertising campaign featuring ***watt***smart energy efficiency messaging.
- Promoting customer conservation (behavioral changes) and increasing participation and savings through Pacific Power ***watt***smart DSM programs.

- Motivating customers to reduce consumption independently or to do so by participating in at least one of Pacific Power's ***watt***smart DSM programs.
- Educating customers on how these programs can help them save money on their utility bills, reduce energy consumption, and keep costs down for all Pacific Power customers in Washington.

The ***watt***smart advertising campaign is comprised of a multi-media mix designed to reach as many customers as possible with the greatest frequency. Various communications channels were utilized to optimize effectiveness, frequency and coverage and to build on the messages. Table 33 outlines the media channels used, the value of each channel, and the impressions achieved to date.

Table 33
2012 Media Channels

Communication Channel	Value to Communication Portfolio	2012 Placements
Television	Television has the broadest reach and works as the most effective media channel	Rotation of advertisements Both 30 and 15 seconds spots. 8,237placements (2,026 network and 6,211 cable) 4,969,900 impressions
Radio	Given the cost relative to television, radio builds on communications delivered via television while providing for increased frequency of messages	Rotation of advertisements 912 placements 1,036,360 impressions
Newspaper	Supports broadcast messages and guarantees coverage in areas harder to reach with broadcast	83 placements in 6 papers 977,478 impressions
Online advertising		2,054,300 impressions
Web Site www.pacificpower.net Promote *bewattsmart.com* in advertising, which goes directly to DSM/energy efficiency program page	Supports all other forms of communications by serving as a source for detailed information regarding the Company's program and other energy efficiency opportunities	*bewattsmart.com* had more that 25,700 visits in 2012
Twitter @PacificPower_WA	Awareness for early adopters regarding energy efficiency tips Tweets posted on a weekly basis	306 followers through December 2012
FaceBook www.facebook.com/pacificpower.wattsmart	Awareness for early adopters regarding energy efficiency tips and a location to share information	464 fans through December 2012

The total number impressions for the campaign in 2012 were 9,038,038.

Links to the Company's current portfolio of advertisements is included in Appendix 6.

The audiences for these messages were prioritized as follows:
- PRIMARY: Households in Pacific Power's service area
- SECONDARY: Small and large business

Program Specific

All energy efficiency program communications are branded under the ***watt***smart umbrella to reinforce the campaign and to link changes in behavior to actions customers can take by participating in specific programs. Separate marketing activities administered by and specific to the programs ran in conjunction with the ***watt***smart campaign in 2012.

Home Energy Savings

The *Home Energy Savings* program communicates to customers, retailers and trade allies through a variety of channels. In January and February 2012, new heat pump sales pieces were developed and a retailer resource manual was distributed. Communications promoting online application processing were provided to retailers during the first part of the year.

In March, *Home Energy Savings* program staff sponsored a booth at the Central Washington Home & Garden Show. Discounted admission coupons were inserted in customer bills in advance of the show.

Program changes were implemented and communicated in April. This provided an opportunity to promote new incentive measures and increased incentive amounts to customers in Washington through print ads, bill messages and social media.

In the summer, program communications focused on cooling measures. The cooling campaign included:
- Room air conditioner point of purchase material
- Handout material for retailers and trade allies to use in their sales to customers
- Web features
- Online and print ads
- Bill insert

Results from the campaign indicate increased savings from cooling measures in 2012 compared to the previous year.

A case study brochure was created to showcase the 60-unit affordable housing project with Walla Walla Housing Authority. This piece was distributed to multi-family property owners, trade allies and industry stakeholders.

In the fall, the *Home Energy Savings* program developed a heating campaign (similar to the cooling campaign), including:
- Web features
- Sales handout and outreach to trade allies
- Bill insert
- Social media

Results from the campaign will be compiled after the heating season in 2013.

In November 2012, the Company launched a Black Friday campaign to promote efficient equipment purchases during the holiday shopping season and encourage participation in the program.

Residential Refrigerator Recycling

The Company promotes the *See ya later, refrigerator*® program through informational advertisements and other customer communications. In 2012, the program garnered 12,285,366 impressions. Breakdown of impressions by media type is shown in Table 34.

Table 34
See ya later, refrigerator® Program

Communications Channel	2012
TV	10,755,733
Newspaper	1,515,800
Digital	13,833

In fall 2012, new outreach materials were developed including point of purchase materials, magnets and Web features.

FinAnswer Express and Energy FinAnswer

In 2012, customer communications and outreach supported *FinAnswer Express* and *Energy FinAnswer* utilizing radio, print and digital display advertising and social media. This was in addition to customer direct contact by Company project managers and regional community managers, articles in the Company newsletters and content on the Company website.

Communications emphasized the change in federal lighting standards that took place July 14, 2012. This standard applied to manufacturers of general service fluorescent lamps. Customers were encouraged to retrofit their older linear fluorescent lighting ahead of the standards change and remind them that incentives were still available after the standards change. The Company maintained a page[30] on the website dedicated to this topic.

Energy Education in Schools

Effective June 30, 2012, the Energy Education in School – Schedule 113 was canceled. This request was made by the Company and supported by the Washington DSM Advisory Group and the Commission. The primary concerns of the program were with measurement and verification of savings, declining savings from the energy efficiency kits, and the availability of less expensive energy education alternatives. Prior to cancelation, 4,634 sixth grade students participated in the energy education curriculum in the 2011-2012 school year.

[30] www.pacificpower.net/lightingstandards

In the latter half of 2012, the Company issued a competitive Request for Proposal for a ***watt***smart Schools education program and awarded the contract to the National Energy Foundation (NEF). The new program is designed to develop a culture of energy efficiency among teachers, students, and families. The centerpiece is a series of one hour presentations with hands-on, large group activities for 4th, 5th, or 6th grade students. Teachers are provided instructional materials for use in their classrooms, and students are sent home with a Household Report Card to explore energy use in their homes and to encourage efficient behaviors.

The costs reported at the beginning of the report in Table 8 include the Energy Education in Schools program during the first half of 2012 as well as the costs associated with planning and development of the new program. The costs for this education program falls under Docket UE-111880, Order 01, Condition (7)(d) Conservation Efforts without Approved EM&V Protocol.

Evaluations

Evaluations are performed by independent external evaluators to validate energy and demand savings derived from the Company's energy efficiency programs. Industry best practices are adopted by the Company with regards to principles of operation, methodologies, evaluation methods, definitions of terms, and protocols including those outlined in the National Action Plan for Energy Efficiency ("NAPEE") Program Impact Evaluation and the California Evaluation Framework guides.

A component of the overall evaluation efforts is aimed at the reasonable verification of installations of energy efficient measures and associated documentation through review of documentation, surveys and/or ongoing onsite inspections.

Verification of the potential to achieve savings involves regular inspection and commissioning of equipment. The Company engages in programmatic verification activities, including inspections, quality assurance reviews, and tracking checks and balances as part of routine program implementation and may rely upon these practices in the verification of installation information for the purposes of savings verifications in advance of more formal impact evaluation results. A summary of the inspection process is included in Appendix 3.

Evaluation, measurement and verification ("EM&V") tasks are segregated within the Company's organization to ensure they are performed and managed by personnel who have a neutral interest in the benefits associated with anticipated savings.

In June 2011, Pacific Power awarded multi-year contracts to evaluate the Company's energy efficiency programs for all states. The contracts awarded were completed through a competitive bid process.

The Washington *Home Energy Savings*, *See ya later, refrigerator®*, *Low Income Weatherization*, *FinAnswer Express*, and *Energy FinAnswer* program evaluations summary of recommendations and web link to reports are provided in Appendix 4.

Outlined below is a list of the programs, the program years completed during 2012 and the third party evaluator who performed the evaluation.

Program	**Years Evaluated**	**Evaluator**
Home Energy Savings	2009-2010	The Cadmus Group
See ya later, refrigerator	2009-2010	The Cadmus Group
Low- Income Weatherization	March 2009- February 2011	The Cadmus Group
Energy FinAnswer	2009-2011	Navigant Consulting, Inc.
FinAnswer Express	2009-2011	Navigant Consulting, Inc.

Appendix 1
Estimated Peak Contributions
2012

Pacific Power

Energy Efficiency Programs

The MW reported savings of 8.46 (at generation) for energy efficiency programs during 2012 represents the summation of estimated MW values made available through the Company's business and residential energy efficiency programs; calculations for the business and residential programs differ.

The Company's business programs MW contributions are based on engineering estimates of capacity values for installed measures; project unique factors are individually calculated for custom projects while deemed factors are utilized for prescriptive measures. These calculations are based on actual installed measures in the reported year. For 2012, it is calculated that 3.45 MW of capacity contribution were made available through business program energy efficiency acquisitions. Specific hours during which business program measures contribute MW capacity are dependent upon several factors including specific business operations and general economic conditions.

For the residential programs, energy to capacity factor is utilized to calculate the MW savings made available through these programs. The energy to capacity factor utilized in the calculation (1.86 MW in 2012 for each average MWh of energy efficiency acquired) is the same as the average load profile factor of energy efficiency resources selected in the 2011 IRP, i.e. the average peak contribution of the energy efficiency resource selections across all measures and sectors. The utilization of this factor in the MW calculation assumes that the energy efficiency resources acquired through the Company's residential programs have the same average load profile as those energy efficiency resources selected in the 2011 IRP. Utilization of this factor in determining the MW contribution of energy efficiency programs for 2012 is detailed in the table below.

Line	Description	Value
1	First year EE program savings acquired during 2012	23,603
2	Average MWh value (line 1 / 8760 hours)	2.69
3	Peak MW contribution of 2012 EE acquisitions	5.01

As demonstrated, it is estimated that the residential energy efficiency program acquisitions in 2012 contributed 5.01 MW of capacity contribution. As with the business programs, when these savings occur on an hourly basis is dependent upon several factors including energy usage patterns of residential customers.

Together, the 3.45 MW's estimated for the business programs and the 5.01 MW's estimated for residential programs make up the 8.46 MW savings value of energy efficiency programs.

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Appendix 2

Energy Efficiency Cost Effectiveness

Pacific Power

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Portfolio and Sector Level Cost Effectiveness

The overall energy efficiency portfolio and component sectors were cost effective on a PacifiCorp Total Resource Cost Test (PTRC), Total Resource Cost Test (TRC), Utility Cost Test (UCT), and Participant Cost Test (PCT) basis.

The following table provides the results of all five cost effectiveness tests.

Portfolio and Sector Cost Effectiveness Summary	**Cost Effectiveness Test**				
	PTRC	**TRC**	**UCT**	**RIM**	**PCT**
Total Portfolio Including NEEA	2.15	1.95	3.47	0.92	2.81
C&I Energy Efficiency Portfolio	2.11	1.92	4.46	1.02	2.08
Residential Energy Efficiency Portfolio (including NEEA)	3.06	2.78	3.76	0.88	6.55
Total Portfolio Including NEEA and Non-Energy Benefits	2.22	2.02	3.47	0.92	2.88
Residential Energy Efficiency Portfolio with Non-Energy Benefits (including NEEA)	3.34	3.06	3.76	0.88	7.01

Sector and Program Level Cost Effectiveness Summaries:

The cost effectiveness results for the sector level are aggregations of the costs and benefits from the component programs. The inputs and assumptions that support these results are contained in the program level cost effectiveness results.

The tables below present the cost-effectiveness analysis for the Washington Energy Efficiency Portfolio based on 2012 costs and savings estimates. The utility discount rate is from the 2011 PacifiCorp Integrated Resource Plan.

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

Table 1: Common Inputs

Parameter	Value
Discount Rate	7.17%
Residential Line Loss	9.67%
Commercial Line Loss	9.53%
Industrial Line Loss	8.16%
Residential Energy Rate ($/kWh) (base year 2012)	$0.0863
Commercial Energy Rate ($/kWh) (base year 2012)	$0.0768
Industrial Energy Rate ($/kWh) (base year 2012)	$0.0649
Inflation Rate[1]	1.80%

Table 2: Portfolio Level Costs 2012

Cost	Value
Company Initiatives - Distribution Efficiency	$146,618
Company Initiatives - Production Efficiency	$231,495
School Energy Education	$252,946
New Programs	($1,836)
Outreach and Communication	$209,022
Evaluation, Potential Study & Technical Reference Library	$751,468
Total	$1,589,713

Table 3: NEEA kWh Savings and Costs

Program	Value
kWh	12,439,200
Incremental Cost	$1,218,412

Table 4: 2012 Total Portfolio Including NEEA

	Levelized $/kWh	Costs	Benefits	Net Benefits	Benefit/Cost Ratio
Total Resource Cost Test (PTRC) + Conservation Adder	$0.0478	$17,721,235	$38,328,256	$20,607,021	2.16
Total Resource Cost Test (TRC) No Adder	$0.0478	$17,721,235	$34,843,869	$17,122,634	1.97
Utility Cost Test (UCT)	$0.0268	$9,921,150	$34,843,869	$24,922,719	3.51
Rate Impact Test (RIM)		$37,635,746	$34,843,869	($2,791,877)	0.93
Participant Cost Test (PCT)		$11,308,061	$31,723,062	$20,415,001	2.81
Lifecycle Revenue Impacts ($/kWh)		$0.00003654			

[1] Used to escalate future year energy rates.

Table 5: 2012 C&I Energy Efficiency Portfolio

	Levelized $/kWh	Costs	Benefits	Net Benefits	Benefit/Cost Ratio
Total Resource Cost Test (PTRC) + Conservation Adder	$0.0497	$11,652,543	$24,644,110	$12,991,567	2.11
Total Resource Cost Test (TRC) No Adder	$0.0497	$11,652,543	$22,403,736	$10,751,193	1.92
Utility Cost Test (UCT)	$0.0214	$5,024,426	$22,403,736	$17,379,310	4.46
Rate Impact Test (RIM)		$21,909,837	$22,403,736	$493,899	1.02
Participant Cost Test (PCT)		$9,476,581	$19,733,875	$10,257,294	2.08
Lifecycle Revenue Impacts ($/kWh)		($0.00000780)			

Table 6: 2012 Residential Energy Efficiency Portfolio (including NEEA)

	Levelized $/kWh	Costs	Benefits	Net Benefits	Benefit/Cost Ratio
Total Resource Cost Test (PTRC) + Conservation Adder	$0.0329	$4,478,979	$13,684,146	$9,205,167	3.06
Total Resource Cost Test (TRC) No Adder	$0.0329	$4,478,979	$12,440,133	$7,961,153	2.78
Utility Cost Test (UCT)	$0.0243	$3,307,011	$12,440,133	$9,133,121	3.76
Rate Impact Test (RIM)		$14,136,196	$12,440,133	($1,696,063)	0.88
Participant Cost Test (PCT)		$1,831,480	$11,989,187	$10,157,707	6.55
Lifecycle Revenue Impacts ($.kWh)		$0.00002220			

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

Table 7: 2012 Total Portfolio Including NEEA and Non-Energy Benefits

	Levelized $/kWh	Costs	Benefits	Net Benefits	Benefit/Cost Ratio
Total Resource Cost Test (PTRC) + Conservation Adder	$0.0478	$17,721,235	$39,610,549	$21,889,314	2.24
Total Resource Cost Test (TRC) No Adder	$0.0478	$17,721,235	$36,126,162	$18,404,927	2.04
Utility Cost Test (UCT)	$0.0268	$9,921,150	$34,847,432	$24,926,282	3.51
Rate Impact Test (RIM)		$37,635,746	$34,847,432	($2,788,314)	0.93
Participant Cost Test (PCT)		$11,308,061	$32,564,389	$21,256,328	2.88
Lifecycle Revenue Impacts ($.kWh)		$0.00003649			

Table 8: 2012 Residential Energy Efficiency Portfolio with Non-Energy Benefits (including NEEA)

	Levelized $/kWh	Costs	Benefits	Net Benefits	Benefit/Cost Ratio
Total Resource Cost Test (PTRC) + Conservation Adder	$0.0329	$4,478,979	$14,966,439	$10,487,460	3.34
Total Resource Cost Test (TRC) No Adder	$0.0329	$4,478,979	$13,722,426	$9,243,446	3.06
Utility Cost Test (UCT)	$0.0243	$3,307,011	$12,443,696	$9,136,684	3.76
Rate Impact Test (RIM)		$14,136,196	$12,443,696	($1,692,500)	0.88
Participant Cost Test (PCT)		$1,831,480	$12,830,514	$10,999,034	7.01
Lifecycle Revenue Impacts ($/kWh)		$0.00002215			

The tables below summarize the non-energy benefits for the Low Income, Home Energy Savings and Energy Education programs.

Table 9: Low Income Weatherization Non-Energy Benefits

Non-Energy Benefit	Program Impact	Perspective Adjusted
Arrearage Reduction	$3,325	TRC, PTRC, UCT, RIM
Capital Cost Savings	$238	TRC, PTRC, UCT, RIM
Economic Impact	$437,403	TRC, PTRC
Home Repair Costs	$50,326	TRC, PTRC, PCT
Total	$491,293	

Table 10: Home Energy Savings (Appliance) Non-Energy Benefits

Non-Energy Benefit	Non-Energy Benefits per Measure	Total Installs	Measure Life	Total Present Value Benefits
Clothes Washer-Tier Two (2.0 + MEF)	$60.26	1,007	14	$562,979
Clothes Washer (MEF ≥ 2.46 & WF ≤ 4)	$81.00	302	14	$226,951
Dishwasher	$0.31	405	12	$1,042
New Homes Dishwashers	$0.31	11	12	$28
Total				$791,001

Program Level Cost Effectiveness

Home Energy Savings Program

The tables below present the cost-effectiveness findings of the Washington Home Energy Savings program based on 2012 costs and savings estimates. The utility discount rate is from the 2011 PacifiCorp Integrated Resource Plan.

Cost-effectiveness was tested using the 2011 IRP west residential lighting, whole house, or cooling load factor decrements (medium carbon), depending on the measure group. Table 1 lists modeling inputs.

Table 1: Home Energy Savings Inputs

Parameter	Value
Discount Rate	7.17%
Line Loss	9.67%
Residential Energy Rate ($/kWh) (base year 2012)	$0.0863
Inflation Rate[2]	1.80%

Table 2: Home Energy Savings Annual Program Costs

	Program Costs	Utility Admin	Incentives	Total Utility Costs	Net Participant Incremental Cost
Lighting	$132,943	$33,560	$149,469	$315,972	$397,423
Appliance	$176,830	$44,640	$76,975	$298,445	$467,405
Home Improvement	$84,478	$21,326	$86,041	$191,844	$204,052
HVAC	$3,704	$935	$3,788	$8,428	$20,563
New Construction	$24,586	$6,207	$289,699	$320,491	$742,037
Total	$422,541	$106,668	$605,972	$1,135,180	$1,831,480

Table 3: Home Energy Savings Savings by Measure Type

	Gross kWh Savings	Realization Rate	Adjusted Gross Savings	Net to Gross Percentage	Net kWh Savings	Measure Life
Lighting	453,968	100%	453,968	100%	453,968	15
Appliance	603,834	100%	603,834	100%	603,834	18
Home Improvement	288,472	100%	288,472	100%	288,472	45
HVAC	12,650	100%	12,650	100%	12,650	41
New Construction	4,692,487	100%	4,692,487	100%	4,692,487	5
Total	6,051,411		6,051,411		6,051,411	

[2] Used to escalate future year energy rates.

Table 4: Home Energy Savings

	Levelized $/kWh	Costs	Benefits	Net Benefits	Benefit/Cost Ratio
Total Resource Cost Test (PTRC) + Conservation Adder	$0.0636	$2,360,688	$4,001,094	$1,640,406	1.69
Total Resource Cost Test (TRC) No Adder	$0.0636	$2,360,688	$3,637,358	$1,276,670	1.54
Utility Cost Test (UCT)	$0.0306	$1,135,180	$3,637,358	$2,502,178	3.20
Rate Impact Test (RIM)		$4,271,226	$3,637,358	($633,867)	0.85
Participant Cost Test (PCT)		$1,831,480	$3,742,017	$1,910,537	2.04
Lifecycle Revenue Impacts ($/kWh)				$0.0000083	
Discounted Participant Payback (years)				2.44	

Table 5: Lighting (West Res Lighting 48% LF Decrement)

	Levelized $/kWh	Costs	Benefits	Net Benefits	Benefit/Cost Ratio
Total Resource Cost Test (PTRC) + Conservation Adder	$0.0366	$772,830	$1,897,676	$1,124,846	2.46
Total Resource Cost Test (TRC) No Adder	$0.0366	$772,830	$1,725,160	$952,330	2.23
Utility Cost Test (UCT)	$0.0152	$320,491	$1,725,160	$1,404,669	5.38
Rate Impact Test (RIM)		$2,034,268	$1,725,160	($309,109)	0.85
Participant Cost Test (PCT)		$742,037	$2,003,476	$1,261,439	2.70
Discounted Participant Payback (years)				1.123	

Table 6: Appliance (West Res Whole House 49% LF Decrement)

	Levelized $/kWh	Costs	Benefits	Net Benefits	Benefit/Cost Ratio
Total Resource Cost Test (PTRC) + Conservation Adder	$0.1195	$563,926	$501,906	($62,020)	0.89
Total Resource Cost Test (TRC) No Adder	$0.1195	$563,926	$456,278	($107,648)	0.81
Utility Cost Test (UCT)	$0.0669	$315,972	$456,278	$140,306	1.44
Rate Impact Test (RIM)		$727,352	$456,278	($271,074)	0.63
Participant Cost Test (PCT)		$397,423	$560,849	$163,426	1.41
Discounted Participant Payback (years)				7.43	

Table 7: Home Improvement (West Res Cooling 7% LF Decrement)

	Levelized $/kWh	Costs	Benefits	Net Benefits	Benefit/Cost Ratio
Total Resource Cost Test (PTRC) + Conservation Adder	$0.0765	$309,856	$601,155	$291,299	1.94
Total Resource Cost Test (TRC) No Adder	$0.0765	$309,856	$546,505	$236,649	1.76
Utility Cost Test (UCT)	$0.0474	$191,844	$546,505	$354,660	2.85
Rate Impact Test (RIM)		$556,257	$546,505	($9,753)	0.98
Participant Cost Test (PCT)		$204,052	$450,453	$246,401	2.21
Discounted Participant Payback (years)				5.28	

Table 8: HVAC (West Res Cooling 7% LF Decrement)

	Levelized $/kWh	Costs	Benefits	Net Benefits	Benefit/Cost Ratio
Total Resource Cost Test (PTRC) + Conservation Adder	$0.0973	$688,875	$973,996	$285,122	1.41
Total Resource Cost Test (TRC) No Adder	$0.0973	$688,875	$885,451	$196,577	1.29
Utility Cost Test (UCT)	$0.0422	$298,445	$885,451	$587,007	2.97
Rate Impact Test (RIM)		$928,940	$885,451	($43,489)	0.95
Participant Cost Test (PCT)		$467,405	$707,471	$240,066	1.51
Discounted Participant Payback (years)				9.16	

Table 9: New Construction (West Res Cooling 7% LF Decrement)

	Levelized $/kWh	Costs	Benefits	Net Benefits	Benefit/Cost Ratio
Total Resource Cost Test (PTRC) + Conservation Adder	$0.1420	$25,202	$26,362	$1,159	1.05
Total Resource Cost Test (TRC) No Adder	$0.1420	$25,202	$23,965	($1,237)	0.95
Utility Cost Test (UCT)	$0.0475	$8,428	$23,965	$15,537	2.84
Rate Impact Test (RIM)		$24,408	$23,965	($443)	0.98
Participant Cost Test (PCT)		$20,563	$19,768	($794)	0.96
Discounted Participant Payback (years)				na	

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 (non-energy benefits per measure values are from the Sixth Power Plan).

Table 10: Non-Energy Benefits

Non-Energy Benefit	Non-Energy Benefits per Measure	Total Installs	Measure Life	Total Present Value Benefits
Clothes Washer-Tier Two (2.0 + MEF)	$60.26	1,007	14	$562,979
Clothes Washer (MEF ≥ 2.46 & WF ≤ 4)	$81.00	302	14	$226,951
Dishwasher	$0.31	405	12	$1,042
New Homes Dishwashers	$0.31	11	12	$28
Total				$791,001

When these non-energy benefits are incorporated in the PTRC, TRC, and PCT cost-effectiveness analysis for appliances, the TRC improves to 2.21, as shown in Table 11.

Table 11: Appliance with Non-Energy Benefits

	Levelized $/kWh	Costs	Benefits	Net Benefits	Benefit/Cost Ratio
Total Resource Cost Test (PTRC) + Conservation Adder	$0.1195	$563,926	$1,292,907	$728,981	2.29
Total Resource Cost Test (TRC) No Adder	$0.1195	$563,926	$1,247,279	$683,353	2.21
Utility Cost Test (UCT)	$0.0669	$315,972	$456,278	$140,306	1.44
Rate Impact Test (RIM)		$727,352	$456,278	($271,074)	0.63
Participant Cost Test (PCT)		$397,423	$1,351,850	$954,427	3.40
Discounted Participant Payback (years)				7.43	

Similarly, the overall program TRC improves to 1.88 when non-energy benefits are included, as shown in Table 12.

Table 12: Home Energy Savings with Non-Energy Benefits

	Levelized $/kWh	Costs	Benefits	Net Benefits	Benefit/Cost Ratio
Total Resource Cost Test (PTRC) + Conservation Adder	$0.0636	$2,360,688	$4,792,095	$2,431,407	2.03
Total Resource Cost Test (TRC) No Adder	$0.0636	$2,360,688	$4,428,359	$2,067,671	1.88
Utility Cost Test (UCT)	$0.0306	$1,135,180	$3,637,358	$2,502,178	3.20
Rate Impact Test (RIM)		$4,271,226	$3,637,358	($633,867)	0.85
Participant Cost Test (PCT)		$1,831,480	$4,533,018	$2,701,538	2.48
Lifecycle Revenue Impacts ($/kWh)				$0.0000083	
Discounted Participant Payback (ye				0.95	

Home Energy Reporting

The tables below present the cost-effectiveness findings of the Washington Home Energy Reporting program based on 2012 costs and savings estimates. The utility discount rate is from the 2011 PacifiCorp Integrated Resource Plan.

Cost-effectiveness was tested using the 2011 IRP west whole house 49% load factor decrements (medium carbon). Table 1 lists modeling inputs.

Table 1: Home Energy Reporting Inputs

Parameter	Value
Discount Rate	7.17%
Residential Line Loss	9.67%
Residential Energy Rate ($/kWh) (base year 2012)	$0.0863
Inflation Rate[3]	1.80%

Table 2: Home Energy Reporting Annual Program Costs

	Program Costs	Marketing	Utility Admin	Incentives	Total Utility Costs	Net Participant Incremental Cost
Home Energy Reporting	$57,690	$28,976	$13,591	$0	$100,257	$0

Table 3: Home Energy Reporting Savings by Measure Type

	Gross kWh Savings	Realization Rate	Adjusted Gross Savings	Net to Gross Percentage	Net kWh Savings	Measure Life
Home Energy Reporting	1,778,482	100%	1,778,482	100%	1,778,482	1

[3] Used to escalate future year energy rates.

Table 4: Home Energy Reporting Cost-Effectiveness

	Levelized $/kWh	Costs	Benefits	Net Benefits	Benefit/Cost Ratio
Total Resource Cost Test (PTRC) + Conservation Adder	$0.0514	$100,257	$156,860	$56,603	1.56
Total Resource Cost Test (TRC) No Adder	$0.0514	$100,257	$142,600	$42,343	1.42
Utility Cost Test (UCT)	$0.0514	$100,257	$142,600	$42,343	1.42
Rate Impact Test (RIM)		$253,740	$142,600	($111,140)	0.56
Participant Cost Test (PCT)		$0	$153,483	$153,483	N/A
Lifecycle Revenue Impacts ($/kWh)				$0.00002326	
Discounted Participant Payback (years)				N/A	

See ya later, refrigerator®

The tables below present the cost-effectiveness findings of the Washington See Ya Later Refrigerator program based on 2012 costs and savings estimates. The utility discount rate is from the 2011 PacifiCorp Integrated Resource Plan.

Cost-effectiveness was tested using the 2011 IRP west residential whole house 49% load factor decrement (medium carbon). Table 1 lists modeling inputs.

The program is cost-effective from the PTRC, TRC, UCT, and PCT perspectives.

Table 1: See-Ya-Later Inputs

Parameter	Value
Discount Rate	7.17%
Residential Line Loss	9.67%
Residential Energy Rate ($/kWh) (base year 2012)	$0.0863
Inflation Rate[4]	1.80%

Table 2: See-Ya-Later Annual Program Costs

	Program Costs	Utility Admin	Incentives	Total Utility Costs	Net Participant Incremental Cost
Refrigerators	$133,502	$26,635	$36,870	$197,007	$0
Freezers	$22,932	$4,575	$8,460	$35,967	$0
Kits	$4,893	$976	$8,210	$14,080	$0
Total	$161,328	$32,186	$53,540	$247,055	$0

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

	Gross kWh Savings	Realization Rate	Adjusted Gross Savings	Net to Gross Percentage	Net kWh Savings	Measure Life
Refrigerators	889,796	100%	889,796	100%	889,796	6
Freezers	152,844	100%	152,844	100%	152,844	9
Kits	32,614	100%	32,614	100%	32,614	5
Total	1,075,254		1,075,254		1,075,254	

[4] Used to escalate future year energy rates.

Table 4: SYLR Program Cost-Effectiveness

	Levelized $/kWh	Costs	Benefits	Net Benefits	Benefit/Cost Ratio
Total Resource Cost Test (PTRC) + Conservation Adder	$0.0308	$193,514	$594,498	$400,984	3.07
Total Resource Cost Test (TRC) No Adder	$0.0308	$193,514	$540,453	$346,938	2.79
Utility Cost Test (UCT)	$0.0394	$247,055	$540,453	$293,398	2.19
Rate Impact Test (RIM)		$764,024	$540,453	($223,571)	0.71
Participant Cost Test (PCT)		$0	$570,510	$570,510	N/A
Lifecycle Revenue Impacts ($/kWh)				$0.00000625	
Discounted Participant Payback (years)				N/A	

Table 5: Refrigerators

	Levelized $/kWh	Costs	Benefits	Net Benefits	Benefit/Cost Ratio
Total Resource Cost Test (PTRC) + Conservation Adder	$0.0323	$160,137	$465,303	$305,166	2.91
Total Resource Cost Test (TRC) No Adder	$0.0323	$160,137	$423,003	$262,865	2.64
Utility Cost Test (UCT)	$0.0397	$197,007	$423,003	$225,995	2.15
Rate Impact Test (RIM)		$603,742	$423,003	($180,739)	0.70
Participant Cost Test (PCT)		$0	$443,605	$443,605	na
Discounted Participant Payback (years)				na	

Table 6: Freezers

	Levelized $/kWh	Costs	Benefits	Net Benefits	Benefit/Cost Ratio
Total Resource Cost Test (PTRC) + Conservation Adder	$0.0237	$27,507	$114,841	$87,334	4.17
Total Resource Cost Test (TRC) No Adder	$0.0237	$27,507	$104,401	$76,894	3.80
Utility Cost Test (UCT)	$0.0310	$35,967	$104,401	$68,434	2.90
Rate Impact Test (RIM)		$133,471	$104,401	($29,069)	0.78
Participant Cost Test (PCT)		$0	$105,963	$105,963	na
Discounted Participant Payback (years)				na	

Table 7: Kits

	Levelized $/kWh	Costs	Benefits	Net Benefits	Benefit/Cost Ratio
Total Resource Cost Test (PTRC) + Conservation Adder	$0.0375	$5,870	$14,354	$8,484	2.45
Total Resource Cost Test (TRC) No Adder	$0.0375	$5,870	$13,049	$7,179	2.22
Utility Cost Test (UCT)	$0.0900	$14,080	$13,049	($1,031)	0.93
Rate Impact Test (RIM)		$26,811	$13,049	($13,762)	0.49
Participant Cost Test (PCT)		$0	$20,942	$20,942	na
Discounted Participant Payback (years)				na	

Low-Income Weatherization

The tables below present the cost-effectiveness findings of the Washington Low Income Weatherization program based on 2012 costs and savings estimates. The utility discount rate is from the 2011 PacifiCorp Integrated Resource Plan.

Cost-effectiveness was tested using the 2011 IRP west residential whole house 49% load factor decrements (medium carbon). Table 1 lists modeling inputs.

The program is not cost-effective from the TRC, UCT or RIM perspectives.

Table 1: Low Income Weatherization Inputs

Parameter	Value
Discount Rate	7.17%
Residential Line Loss	9.67%
Residential Energy Rate ($/kWh) (base year 2012)	$0.0863
Inflation Rate[5]	1.80%

Table 2: Low Income Weatherization Annual Program Costs

	Program Costs	Utility Admin	Incentives	Total Utility Costs	Net Participant Incremental Cost
Low Income weatherization	$70,057	$35,560	$500,491	$606,108	$0

Table 3: Low Income Weatherization Savings by Measure Type

	Gross kWh Savings	Realization Rate	Adjusted Gross Savings	Net to Gross Percentage	Net kWh Savings	Measure Life
Low Income weatherization	206,080	100%	206,080	100%	206,080	30

[5] Used to escalate future year energy rates.

Table 4: Low Income Weatherization

	Levelized $/kWh	Costs	Benefits	Net Benefits	Benefit/Cost Ratio
Total Resource Cost Test (PTRC) + Conservation Adder	$0.2096	$606,108	$341,891	($264,217)	0.56
Total Resource Cost Test (TRC) No Adder	$0.2096	$606,108	$310,810	($295,298)	0.51
Utility Cost Test (UCT)	$0.2096	$606,108	$310,810	($295,298)	0.51
Rate Impact Test (RIM)		$866,439	$310,810	($555,629)	0.36
Participant Cost Test (PCT)		$0	$760,821	$760,821	N/A
Lifecycle Revenue Impacts ($/kWh)				$0.00000727	
Discounted Participant Payback (years)				N/A	

These results do not incorporate the non-energy benefits that were analyzed by Cadmus in the 2009-10 low income program evaluation, including the program's impact on arrearages, capital costs, home repair costs, and economic impacts. These benefits are presented in Table 5.

Table 5. Total Program Non-Energy Benefits

Non-Energy Benefit	Program Impact	Perspective Adjusted
Arrearage Reduction	$3,325	TRC, PTRC, UCT, RIM
Capital Cost Savings	$238	TRC, PTRC, UCT, RIM
Economic Impact	$437,403	TRC, PTRC
Home Repair Costs	$50,326	TRC, PTRC, PCT
Total	$491,293	

When these benefits are included in the analysis the program becomes more cost-effective. As presented in Table 6, the program passes the TRC test with a benefit cost ratio of 1.32.

Table 6: Low Income Weatherization with Non Energy Benefits

	Levelized $/kWh	Costs	Benefits	Net Benefits	Benefit/Cost Ratio
Total Resource Cost Test (PTRC) + Conservation Adder	$0.2096	$606,108	$833,183	$227,075	1.37
Total Resource Cost Test (TRC) No Adder	$0.2096	$606,108	$802,102	$195,994	1.32
Utility Cost Test (UCT)	$0.2096	$606,108	$314,373	($291,735)	0.52
Rate Impact Test (RIM)		$866,439	$314,373	($552,066)	0.36
Participant Cost Test (PCT)		$0	$811,147	$811,147	na
Lifecycle Revenue Impacts ($/kWh)				$0.00000723	
Discounted Participant Payback (years)				na	

FinAnswer Express

The tables below present the cost-effectiveness findings of the WA FinAnswer Express program based on 2012 costs and savings estimates. The utility discount rate is from the 2011 PacifiCorp Integrated Resource Plan.

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

The program is cost-effective from all perspectives except for the RIM perspective.

Table 1: FinAnswer Express Inputs

Parameter	Value
Discount Rate	7.17%
Commercial Line Loss	9.53%
Industrial Line Loss	8.16%
Commercial Energy Rate ($/kWh) (base year 2012)	$0.0768
Industrial Energy Rate ($/kWh) (base year 2012)	$0.0649
Inflation Rate[6]	1.80%

Table 2: FinAnswer Express Annual Program Costs

	Program Costs	Utility Admin	Marketing	Engineering	Incentives	Total Utility Costs	Net Participant Incremental Cost
Appliance	$3	$0	$0	$1	$25	$29	$50
Envelope	$322	$60	$42	$113	$4,088	$4,624	$11,827
Food Service	$3,682	$690	$477	$1,291	$4,605	$10,745	$31,341
HVAC	$751	$141	$97	$263	$7,321	$8,573	$147,692
Lighting	$716,706	$134,219	$92,891	$251,374	$1,265,467	$2,460,656	$4,969,903
Motor	$34,640	$6,487	$4,490	$12,149	$20,645	$78,411	$57,482
Office	$13,880	$2,599	$1,799	$4,868	$7,735	$30,881	$20,498
Compressed	$6,979	$1,307	$905	$2,448	$16,336	$27,974	$46,241
Farm & Dairy	$2,652	$497	$344	$930	$4,138	$8,561	$83,325
Irrigation	$7,191	$1,347	$932	$2,522	$8,630	$20,621	$44,733
Total	$786,804	$147,346	$101,976	$275,960	$1,338,991	$2,651,077	$5,413,092

[6] Used to escalate future year energy rates.

Table 3: FinAnswer Express
Savings by Measure Type

	Gross kWh Savings	Realization Rate	Adjusted Gross Savings	Net to Gross Percentage	Net kWh Savings	Measure Life
Appliance	42	97%	40	100%	40	9
Envelope	5,020	97%	4,869	100%	4,869	20
Food Service	57,454	97%	55,730	100%	55,730	12
HVAC	15,783	72%	11,364	100%	11,364	15
Lighting	11,069,397	98%	10,848,009	100%	10,848,009	14
Motor	340,459	154%	524,307	100%	524,307	15
Office	216,580	97%	210,083	100%	210,083	5
Compressed Air	108,899	97%	105,632	100%	105,632	9
Farm & Dairy	41,385	97%	40,143	100%	40,143	10
Irrigation	112,202	97%	108,836	100%	108,836	5
Total	11,967,220		11,909,013		11,909,013	

Table 4: FinAnswer Express Cost-Effectiveness

	Levelized $/kWh	Costs	Benefits	Net Benefits	Benefit/Cost Ratio
Total Resource Cost Test (PTRC) + Conservation Adder	$0.0566	$6,725,178	$12,644,334	$5,919,156	1.88
Total Resource Cost Test (TRC) No Adder	$0.0566	$6,725,178	$11,494,849	$4,769,671	1.71
Utility Cost Test (UCT)	$0.0223	$2,651,077	$11,494,849	$8,843,772	4.34
Rate Impact Test (RIM)		$11,636,564	$11,494,849	($141,714)	0.99
Participant Cost Test (PCT)		$5,413,092	$10,324,477	$4,911,385	1.91
Lifecycle Revenue Impacts ($/kWh)				$0.00000224	
Discounted Participant Payback (years)				4.43	

Table 5: Appliance

	Levelized $/kWh	Costs	Benefits	Net Benefits	Benefit/Cost Ratio
Total Resource Cost Test (PTRC) + Conservation Adder	$0.1781	$54	$30	($25)	0.55
Total Resource Cost Test (TRC) No Adder	$0.1781	$54	$27	($27)	0.50
Utility Cost Test (UCT)	$0.0963	$29	$27	($2)	0.92
Rate Impact Test (RIM)		$52	$27	($25)	0.52
Participant Cost Test (PCT)		$50	$48	($2)	0.96
Discounted Participant Payback (years)				N/A	

Table 6: Envelope

	Levelized $/kWh	Costs	Benefits	Net Benefits	Benefit/Cost Ratio
Total Resource Cost Test (PTRC) + Conservation Adder	$0.2069	$12,363	$6,726	($5,638)	0.54
Total Resource Cost Test (TRC) No Adder	$0.2069	$12,363	$6,114	($6,249)	0.49
Utility Cost Test (UCT)	$0.0774	$4,624	$6,114	$1,490	1.32
Rate Impact Test (RIM)		$9,418	$6,114	($3,304)	0.65
Participant Cost Test (PCT)		$11,827	$8,881	($2,946)	0.75
Discounted Participant Payback (years)				N/A	

Table 7: Food Service

	Levelized $/kWh	Costs	Benefits	Net Benefits	Benefit/Cost Ratio
Total Resource Cost Test (PTRC) + Conservation Adder	$0.0728	$37,481	$52,722	$15,241	1.41
Total Resource Cost Test (TRC) No Adder	$0.0728	$37,481	$47,929	$10,448	1.28
Utility Cost Test (UCT)	$0.0209	$10,745	$47,929	$37,184	4.46
Rate Impact Test (RIM)		$50,069	$47,929	($2,141)	0.96
Participant Cost Test (PCT)		$31,341	$43,929	$12,588	1.40
Discounted Participant Payback (years)				N/A	

Table 8: HVAC

	Levelized $/kWh	Costs	Benefits	Net Benefits	Benefit/Cost Ratio
Total Resource Cost Test (PTRC) + Conservation Adder	$1.2391	$148,944	$12,961	($135,983)	0.09
Total Resource Cost Test (TRC) No Adder	$1.2391	$148,944	$11,783	($137,161)	0.08
Utility Cost Test (UCT)	$0.0713	$8,573	$11,783	$3,210	1.37
Rate Impact Test (RIM)		$17,935	$11,783	($6,152)	0.66
Participant Cost Test (PCT)		$147,692	$16,683	($131,009)	0.11
Discounted Participant Payback (years)				N/A	

Table 9: Lighting

	Levelized $/kWh	Costs	Benefits	Net Benefits	Benefit/Cost Ratio
Total Resource Cost Test (PTRC) + Conservation Adder	$0.0560	$6,165,092	$11,750,594	$5,585,502	1.91
Total Resource Cost Test (TRC) No Adder	$0.0560	$6,165,092	$10,682,359	$4,517,266	1.73
Utility Cost Test (UCT)	$0.0224	$2,460,656	$10,682,359	$8,221,702	4.34
Rate Impact Test (RIM)		$10,780,643	$10,682,359	($98,285)	0.99
Participant Cost Test (PCT)		$4,969,903	$9,585,454	$4,615,551	1.93
Discounted Participant Payback (years)				5.05	

Table 10: Motors

	Levelized $/kWh	Costs	Benefits	Net Benefits	Benefit/Cost Ratio
Total Resource Cost Test (PTRC) + Conservation Adder	$0.0208	$115,248	$577,075	$461,827	5.01
Total Resource Cost Test (TRC) No Adder	$0.0208	$115,248	$524,613	$409,365	4.55
Utility Cost Test (UCT)	$0.0141	$78,411	$524,613	$446,202	6.69
Rate Impact Test (RIM)		$510,346	$524,613	$14,267	1.03
Participant Cost Test (PCT)		$57,482	$452,580	$395,098	7.87
Discounted Participant Payback (years)				0.94	

Table 11: Office

	Levelized $/kWh	Costs	Benefits	Net Benefits	Benefit/Cost Ratio
Total Resource Cost Test (PTRC) + Conservation Adder	$0.0434	$43,644	$90,681	$47,037	2.08
Total Resource Cost Test (TRC) No Adder	$0.0434	$43,644	$82,437	$38,793	1.89
Utility Cost Test (UCT)	$0.0307	$30,881	$82,437	$51,556	2.67
Rate Impact Test (RIM)		$103,863	$82,437	($21,426)	0.79
Participant Cost Test (PCT)		$20,498	$80,717	$60,220	3.94
Discounted Participant Payback (years)				0.86	

Table 12: Compressed Air

	Levelized $/kWh	Costs	Benefits	Net Benefits	Benefit/Cost Ratio
Total Resource Cost Test (PTRC) + Conservation Adder	$0.0731	$57,879	$78,900	$21,021	1.36
Total Resource Cost Test (TRC) No Adder	$0.0731	$57,879	$71,727	$13,848	1.24
Utility Cost Test (UCT)	$0.0353	$27,974	$71,727	$43,752	2.56
Rate Impact Test (RIM)		$78,650	$71,727	($6,923)	0.91
Participant Cost Test (PCT)		$46,241	$67,012	$20,771	1.45
Discounted Participant Payback (years)				4.80	

Table 13: Farm & Dairy

	Levelized $/kWh	Costs	Benefits	Net Benefits	Benefit/Cost Ratio
Total Resource Cost Test (PTRC) + Conservation Adder	$0.2683	$87,748	$30,596	($57,152)	0.35
Total Resource Cost Test (TRC) No Adder	$0.2683	$87,748	$27,815	($59,933)	0.32
Utility Cost Test (UCT)	$0.0262	$8,561	$27,815	$19,254	3.25
Rate Impact Test (RIM)		$32,022	$27,815	($4,207)	0.87
Participant Cost Test (PCT)		$83,325	$27,599	($55,726)	0.33
Discounted Participant Payback (years)				N/A	

Table 14: Irrigation

	Levelized $/kWh	Costs	Benefits	Net Benefits	Benefit/Cost Ratio
Total Resource Cost Test (PTRC) + Conservation Adder	$0.1099	$56,724	$44,051	($12,674)	0.78
Total Resource Cost Test (TRC) No Adder	$0.1099	$56,724	$40,046	($16,678)	0.71
Utility Cost Test (UCT)	$0.0400	$20,621	$40,046	$19,425	1.94
Rate Impact Test (RIM)		$53,564	$40,046	($13,518)	0.75
Participant Cost Test (PCT)		$44,733	$41,573	($3,160)	0.93
Discounted Participant Payback (years)				N/A	

Energy FinAnswer

The tables below present the cost-effectiveness findings of the Washington FinAnswer program based on 2012 costs and savings estimates. The utility discount rate is from the 2011 PacifiCorp Integrated Resource Plan.

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

The program is cost-effective from all perspectives.

Table 1: Energy FinAnswer Inputs

Parameter	Value
Discount Rate	7.17%
Commercial Line Loss	9.53%
Industrial Line Loss	8.16%
Commercial Energy Rate ($/kWh) (base year 2012)	$0.0768
Industrial Energy Rate ($/kWh) (base year 2012)	$0.0649
Inflation Rate[7]	1.80%

Table 2: Energy FinAnswer Annual Program Costs

	Marketing	Utility Admin	Engineering	Incentives	Total Utility Costs	Net Participant Incremental Cost
Additional Measures	$2,568	$8,353	$30,337	$85,603	$126,861	$177,919
Building Shell	$21	$66	$315	$1,042	$1,444	$2,653
Compressed Air	$111	$354	$1,688	$3,924	$6,078	$7,142
Controls	$822	$2,677	$9,479	$19,232	$32,209	$34,022
HVAC	$7,948	$25,569	$109,272	$315,119	$457,908	$1,227,085
Irrigation	$573	$1,866	$6,610	$19,030	$28,079	$67,916
Lighting	$1,588	$5,077	$23,483	$75,006	$105,153	$380,048
Motors	$3,704	$12,061	$43,059	$97,737	$156,561	$197,886
Refrigeration	$35,816	$116,675	$413,786	$892,780	$1,459,056	$1,968,819
Total	$53,149	$172,698	$638,028	$1,509,473	$2,373,349	$4,063,489

[7] Used to escalate future year energy rates.

Table 3: Energy FinAnswer
Savings by Measure Type

	Gross kWh Savings	Realization Rate	Adjusted Gross Savings	Net to Gross Percentage	Net kWh Savings	Measure Life
Additional Measures	569,034	95%	538,659	100%	538,659	14
Building Shell	6,704	100%	6,704	100%	6,704	14
Compressed Air	35,887	100%	35,887	100%	35,887	14
Controls	175,238	94%	164,724	100%	164,724	14
HVAC	2,222,154	98%	2,181,804	100%	2,181,804	14
Irrigation	122,197	94%	114,865	100%	114,865	14
Lighting	493,512	100%	491,241	100%	491,241	14
Motors	799,774	94%	753,508	100%	753,508	14
Refrigeration	7,656,354	94%	7,199,996	100%	7,199,996	14
Total	12,080,854		11,487,388		11,487,388	

Table 4: Energy FinAnswer – All Measures

	Levelized $/kWh	Costs	Benefits	Net Benefits	Benefit/Cost Ratio
Total Resource Cost Test (PTRC) + Conservation Adder	$0.0426	$4,927,365	$11,999,776	$7,072,411	2.44
Total Resource Cost Test (TRC) No Adder	$0.0426	$4,927,365	$10,908,887	$5,981,522	2.21
Utility Cost Test (UCT)	$0.0205	$2,373,349	$10,908,887	$8,535,538	4.60
Rate Impact Test (RIM)		$10,273,274	$10,908,887	$635,613	1.06
Participant Cost Test (PCT)		$4,063,489	$9,409,398	$5,345,909	2.32
Lifecycle Revenue Impacts ($/kWh)				($0.00001270)	
Discounted Participant Payback (years)				3.53	

Table 5: Additional Measures

	Levelized $/kWh	Costs	Benefits	Net Benefits	Benefit/Cost Ratio
Total Resource Cost Test (PTRC) + Conservation Adder	$0.0405	$219,176	$558,474	$339,298	2.55
Total Resource Cost Test (TRC) No Adder	$0.0405	$219,176	$507,704	$288,528	2.32
Utility Cost Test (UCT)	$0.0234	$126,861	$507,704	$380,843	4.00
Rate Impact Test (RIM)		$492,488	$507,704	$15,216	1.03
Participant Cost Test (PCT)		$177,919	$451,230	$273,312	2.54
Discounted Participant Payback (years)				2.70	

Table 6: Building Shell

	Levelized $/kWh	Costs	Benefits	Net Benefits	Benefit/Cost Ratio
Total Resource Cost Test (PTRC) + Conservation Adder	$0.0448	$3,055	$7,273	$4,217	2.38
Total Resource Cost Test (TRC) No Adder	$0.0448	$3,055	$6,611	$3,556	2.16
Utility Cost Test (UCT)	$0.0212	$1,444	$6,611	$5,167	4.58
Rate Impact Test (RIM)		$6,717	$6,611	($105)	0.98
Participant Cost Test (PCT)		$2,653	$6,314	$3,661	2.38
Discounted Participant Payback (years)				3.32	

Table 7: Compressed Air Table

	Levelized $/kWh	Costs	Benefits	Net Benefits	Benefit/Cost Ratio
Total Resource Cost Test (PTRC) + Conservation Adder	$0.0255	$9,296	$37,567	$28,272	4.04
Total Resource Cost Test (TRC) No Adder	$0.0255	$9,296	$34,152	$24,857	3.67
Utility Cost Test (UCT)	$0.0167	$6,078	$34,152	$28,075	5.62
Rate Impact Test (RIM)		$34,300	$34,152	($148)	1.00
Participant Cost Test (PCT)		$7,142	$32,147	$25,005	4.50
Discounted Participant Payback (years)				1.18	

Table 8: Controls Table

	Levelized $/kWh	Costs	Benefits	Net Benefits	Benefit/Cost Ratio
Total Resource Cost Test (PTRC) + Conservation Adder	$0.0284	$46,999	$170,280	$123,282	3.62
Total Resource Cost Test (TRC) No Adder	$0.0284	$46,999	$154,800	$107,802	3.29
Utility Cost Test (UCT)	$0.0195	$32,209	$154,800	$122,591	4.81
Rate Impact Test (RIM)		$141,680	$154,800	$13,121	1.09
Participant Cost Test (PCT)		$34,022	$128,703	$94,681	3.78
Discounted Participant Payback (years)				1.40	

Table 9: HVAC

	Levelized $/kWh	Costs	Benefits	Net Benefits	Benefit/Cost Ratio
Total Resource Cost Test (PTRC) + Conservation Adder	$0.0620	$1,369,874	$2,358,294	$988,419	1.72
Total Resource Cost Test (TRC) No Adder	$0.0620	$1,369,874	$2,143,903	$774,029	1.57
Utility Cost Test (UCT)	$0.0207	$457,908	$2,143,903	$1,685,995	4.68
Rate Impact Test (RIM)		$2,096,795	$2,143,903	$47,108	1.02
Participant Cost Test (PCT)		$1,227,085	$1,954,006	$726,921	1.59
Discounted Participant Payback (years)				6.55	

Table 10: Irrigation

	Levelized $/kWh	Costs	Benefits	Net Benefits	Benefit/Cost Ratio
Total Resource Cost Test (PTRC) + Conservation Adder	$0.0675	$76,965	$112,463	$35,498	1.46
Total Resource Cost Test (TRC) No Adder	$0.0675	$76,965	$102,240	$25,274	1.33
Utility Cost Test (UCT)	$0.0246	$28,079	$102,240	$74,160	3.64
Rate Impact Test (RIM)		$103,495	$102,240	($1,256)	0.99
Participant Cost Test (PCT)		$67,916	$94,446	$26,530	1.39
Discounted Participant Payback (years)				7.75	

Table 11: Lighting

	Levelized $/kWh	Costs	Benefits	Net Benefits	Benefit/Cost Ratio
Total Resource Cost Test (PTRC) + Conservation Adder	$0.0822	$410,195	$532,697	$122,501	1.30
Total Resource Cost Test (TRC) No Adder	$0.0822	$410,195	$484,270	$74,074	1.18
Utility Cost Test (UCT)	$0.0211	$105,153	$484,270	$379,116	4.61
Rate Impact Test (RIM)		$487,144	$484,270	($2,874)	0.99
Participant Cost Test (PCT)		$380,048	$456,997	$76,949	1.20
Discounted Participant Payback (years)				10.26	

Table 12: Motors

	Levelized $/kWh	Costs	Benefits	Net Benefits	Benefit/Cost Ratio
Total Resource Cost Test (PTRC) + Conservation Adder	$0.0339	$256,709	$778,919	$522,210	3.03
Total Resource Cost Test (TRC) No Adder	$0.0339	$256,709	$708,108	$451,399	2.76
Utility Cost Test (UCT)	$0.0207	$156,561	$708,108	$551,548	4.52
Rate Impact Test (RIM)		$660,544	$708,108	$47,564	1.07
Participant Cost Test (PCT)		$197,886	$601,720	$403,835	3.04
Discounted Participant Payback (years)				2.09	

Table 13: Refrigeration

	Levelized $/kWh	Costs	Benefits	Net Benefits	Benefit/Cost Ratio
Total Resource Cost Test (PTRC) + Conservation Adder	$0.0351	$2,535,095	$7,443,808	$4,908,713	2.94
Total Resource Cost Test (TRC) No Adder	$0.0351	$2,535,095	$6,767,098	$4,232,003	2.67
Utility Cost Test (UCT)	$0.0202	$1,459,056	$6,767,098	$5,308,042	4.64
Rate Impact Test (RIM)		$6,250,111	$6,767,098	$516,987	1.08
Participant Cost Test (PCT)		$1,968,819	$5,683,835	$3,715,016	2.89
Discounted Participant Payback (years)				2.39	

Appendix 3
Washington Measure Installation Verifications

Pacific Power

Washington Measure Installation Verifications

Low Income Weatherization

All projects

- All measures are qualified through US Department of Energy approved audit tool or priority list.
- 100 percent inspection by agency inspector of all homes treated, reconciling work completed and quality (corrective action includes measure verification) prior to invoicing Company.
- State inspector follows with random inspections.
- Company hires independent inspector to inspect between 5-10 percent of homes treated (post treatment and payment).

Home Energy Savings

Site inspections by Program Administrator staff for the following retrofit measures (>=5 percent)

- Insulation
- Windows
- Central air conditioner / heat pump tune-ups
- Duct Sealing

Site inspections of 100 percent by Program Administrator staff of all contractor installed measures in new homes such as insulation, windows, heating and cooling system installs or sizing, duct sealing and CFLs.

No site inspections are conducted for the following measures (unless part of new homes inspection process). However all post-purchase incented measures undergo a quality assurance review prior to the issuance of the customer/dealer incentive and recording of savings (i.e. proof of purchase receipt review) and eligible equipment review. Additionally, customer account and customer address are checked to ensure the Company does not double pay for the same measure or double count measure savings.

- Refrigerators
- Dishwasher
- Ceiling fans
- Light fixtures
- Clothes washers
- Water heaters
- Evaporative coolers
- Air conditioners

Other measures

- CFLs – retail channel, manufacturer agreements and program administrator sales record reviews of qualifying equipment. Invoicing and retail pricing is administered by program administrator.

Refrigerator Recycling

Company hires an independent inspector to phone survey >=5 percent program participants and to site inspect >= 10 percent of program participants in order to verifying program participation, eligibility of equipment, that vendor pick-up procedures are followed (equipment is disabled at site, kits distributed, etc.) and to survey customer experience.

FinAnswer Express

For trade ally program administrated projects

Lighting projects

- Retrofits - 100 percent pre- and post-installation site inspections by third party consultant of all projects with incentives over a specified dollar amount. Project cost documentation reviewed for all projects.
- New construction - 100 percent post-installation site inspections by third party consultant of all projects with incentives over a specified dollar amount.
- A percent of post-installation site inspections by program administrator of projects with incentives under a specified dollar amount.

Non-lighting projects

- 100 percent of applications with an incentive that exceeds a specified dollar amount will be inspected (via site inspection) by program administrator.
- A minimum of a specified percent of remaining non-lighting applications will be inspected, either in person or via telephone interview, by program administrator.

For Company project manager delivered projects (lighting and non-lighting)

Lighting and non-lighting

- 100 percent pre/post-installation site inspections by third party consulting engineering firms, invoice reconciled to inspection results.

Energy FinAnswer

All projects

- 100 percent pre and/or post-site inspections by third party engineering consultant, inspection is reconciled with project invoice for energy efficiency retrofit measures provided by customers. No pre-inspection for new construction.
- Most projects have a commissioning requirement.

All Programs

As part of the third-party program evaluations (two-year cycle) process, the Company is implementing semi-annual customer surveys to collect evaluation-relevant data more frequently to cure for memory loss and other detractors such as customers moving and data not be readily available at evaluation time). This will serve as a further check verifying customer participation and measures installed.

Additional record reviews and site inspections (including metering/data logging) is conducted as part of the process and impact evaluations, a final verification of measure installations.

Appendix 4
Washington Program Evaluations

Pacific Power

Washington 2012 Evaluations

Program Evaluation Recommendations and Company Responses

Evaluation reports provide detailed information on the process and impact evaluations performed on each program, summarizing the methodology used to calculate the evaluated savings as well as providing recommendations for the Company to consider for improving the process or impact of the program, as well as customer satisfaction.

Outlined below is a list of the programs, the years that were evaluated during 2012 and the third party evaluator who completed the evaluation. Program evaluations are available for review at www.pacificorp.com/es/dsm/washington.html

Program	Years Evaluated	Evaluator
Home Energy Savings	2009-2010	The Cadmus Group
See ya later, refrigerator	2009-2010	The Cadmus Group
Low- Income Weatherization	March 2009- February 2011	The Cadmus Group
Energy FinAnswer	2009-2011	Navigant Consulting, Inc.
FinAnswer Express	2009-2011	Navigant Consulting, Inc.

Company responses to the program recommendations contained in the 2009 – 2011 evaluations are provided below.

The third party evaluator's recommendations and Company's responses are provided in Table 1:

Table 1
Home Energy Savings Evaluation Recommendations

Evaluation Recommendations	Pacific Power Action Plan
Due to lack of preparation by retailers, Pacific Power should consider providing educational point of purchase materials about EISA to lighting retailers, framed in the context of increased availability of utility-supported, high-efficiency lighting options. This will help retailers prepare customers for the changes in lighting availability and decrease customer frustration.	The Company developed an EISA communications plan in June 2011. Materials and messaging on EISA are already integrated into the program's marketing plans. Messaging doesn't focus on the specifics of EISA but rather on educating consumers on the meaning and difference for lumens and watts.

Evaluation Recommendations	Pacific Power Action Plan
Ensure that lighting retailers are trained to properly educate and prepare customers for the EISA changes, specifically the Lighting Facts label that is required to be displayed on all lighting packages. Supply retailers with point of purchase materials that will show customers how to interpret the label and easily find the Pacific Power-incented bulbs they need. Although this would not produce directly measureable savings impacts, increased customer satisfaction could indirectly increase customers' willingness to participate in other components of the HES Program.	The Company developed an EISA communications plan in June 2011. Materials and messaging on EISA are already integrated into the program's marketing plans. Messaging doesn't focus on the specifics of EISA but rather on educating consumers on the meaning and difference for lumens and watts.
Given the changes in the evolving lighting industry, explore which higher efficiency lighting options (e.g. LEDs) will garner the most saving per unit. Align marketing messages with the preferred lighting option to heighten awareness using market transformation tactics.	LED downlights were added to the program in April 2012.
The evolving lighting market can act as a platform to clarify marketing messages about lighting options and which bulbs will be best for each customer's intended use. Create marketing collateral that compares the prices of various lighting options with the expected lifetime savings associated with that option to demonstrate the long term value of higher efficiency options. The potential long-term savings attributed to qualifying measures was the primary purchasing motivator for appliance and weatherization participants. These same marketing tactics should be considered for the lighting market given the elimination of traditional, inexpensive options. Messaging should also highlight comparisons of lighting quality and other factors consumers tend to focus on in satisfaction surveys.	Point-of-purchase marketing materials for lighting emphasize educating customers on how to choose the right light bulb for the right application with information on color rendering, lumens and related information.
EISA informational materials should highlight the increased variety of discounted lighting	See above responses.

Evaluation Recommendations	Pacific Power Action Plan
options offered by Pacific Power's HES Program, including specialty CFLs and LEDs.	
Consider providing recycling centers at all participating retail locations; so customers can simply bring in spent bulbs when purchasing replacements. Recycling centers could convey a positive public image to enhance Pacific Power's reputation within the community and add public relations value to the Program, particularly with interveners. Pacific Power should raise awareness of the availability of recycling centers through bill inserts, training for retail staff and other outreach tactics.	10 lighting displays incorporating prepaid recycling boxes were distributed to small retailers in mid to late 2011 throughout Pacific Power and Rocky Mountain Power service territory. It was very difficult to get retailers to accept the displays and set them up on the sales floor. The effort yield no noticeably increase in savings and didn't generate any additional benefits for the retailers. The effort has been discontinued.
As the baseline for lighting savings changes, the non-lighting savings garnered from the HES Program may have an increased significance. If needed, continue to recruit new trade allies to broaden program awareness throughout the service territory. The HES program's trade ally presence is effective; an increased trade ally network could lead to heightened incentive awareness and increased program participation.	The Company constantly is recruiting new trade allies, as well focusing on retaining current trade allies.
Provide trade ally-focused marketing collateral for download within the trade ally section of the program's Website. If necessary, these materials can be offered within a password-protected area. If possible, marketing materials should offer personalization and/or co-branding options for trade ally promotion.	The Company continues to use a face-to-face, telephone, email and webinar contract strategies for engaging trade allies for all activities. The volume of trade ally materials does not warrant developing a Web-based ordering system.
Ensure lighting retailers are trained to inform customers that incented lighting products are discounted by Pacific Power.	Lighting retailers receiving visits and training from program staff on a regular basis to ensure they inform customers the discounted lighting products are provided by Pacific Power.
Continue to leverage "one-to-many" opportunities. "Road Shows" and event exposure can reach rural customers cost-effectively. Invitations to road shows, community gatherings, and/or event sponsorships can offer effective marketing opportunities, outlining the program's value proposition. Events targeting trade allies, a	The Company continues to seek out event opportunities to support trade allies and motivate potential participants.

Evaluation Recommendations	Pacific Power Action Plan
highly qualified and motivated audience base, can be particularly effective.	
Track metrics and provide results to evaluators. Metrics will help Pacific Power assess its return-on-marketing investment, and fine-tune marketing resource allocation.	The Company does track web analytics closely. The Company tracks effectiveness of events, direct mail, bill inserts and other outbound communications. The Company will continue to expand its use of marketing metrics to measure effectiveness and to fine-tine campaigns.
Leverage on- and offline social networks**.** Social network distribution could be provided online and in person. These groups (such as stakeholder trade associations, community networks, Chambers of Commerce, LinkedIn groups, and e-mail networks) provide low-cost, high-volume information distribution vehicles.	The Company has expanded the use of social media (i.e. Twitter, Facebook, etc.) for promoting programs. Program staff is not engaged in local professional associations but relies on Company staff such customer and community managers to represent the program with local organizations.
Promote the program's URL. Only 5 percent of appliance and weatherization participants and no trade allies cited the Website as a referral source, and trade allies did not mentioned online information when asked how they learned about the program. Online marketing can be one of the most cost-effective tools to generate interest and leads in remote geographies. In marketing materials, Pacific Power should emphasize its Website as a key tool for obtaining detailed program information. However, marketing channels should continue to focus on the approaches reported most effective with customers: bill inserts and in-store displays.	Company marketing strategy has shifted from promoting specific energy efficiency program websites to promoting the overarching marketing brand of wattsmart. Nearly all program marketing materials include the wattsmart.com address instead of the program specific address. The Company continues to maintain its focus on bill inserts and in-store displays as the most effective marketing channels with customers.
Mirror segment-driven messages from program collateral on the Website.	Marketing and messaging across channels is consistent.
Include Spanish language information on the Website.	Company has developed several Spanish incentive applications and is in the process of revamping its approach to the Spanish speaking community.
Outsource the QC process to a locally-based QC firm. Subcontracting with a locally-based firm with viable outside work would decrease travel costs and eliminate the concern of a full-time staff member having idle time between	Quality control inspections for HVAC and weatherization projects are done by program staff.

Evaluation Recommendations	Pacific Power Action Plan
installation inspections.	
Utilize marketing messages that target the equipment replacement market. Trade allies should be trained to capture this market's interest by promoting the HES Program when contacted to install new equipment in emergency replacement situations.	Program marketing, messaging and branding uses a consistent look and feel.
Leverage customer's interest in saving energy by providing trade allies with materials focused on potential energy cost savings associated with qualified measures. Information could include estimated annual and lifetime cost savings, compared to a standard efficiency model under accurate Pacific Power rates.	The Company has rolled out a more formal communication and relationship strategy with trade allies. Webinars, a home improvement pocket guide, frequent communications and site visits, inspection feedback, trade ally newsletters, contractor briefs and other tools are being used to provide more value to trade allies and to engage them more thoroughly and consistently.

Table 2
See, ya later refrigerator Evaluation Recommendations

Evaluation Recommendations	Pacific Power Action Plan
Pacific Power should continue implementing the SYLR program to achieve cost-effective energy savings.	The Company continues to offer the program.
Pacific Power should adjust its expected per-unit savings to reflect estimates calculated in this evaluation. Cadmus recommends tracking program savings using the evaluated per-unit gross savings values of 1,153 kWh for refrigerators and 935 kWh for freezers.	The Company adjusted kWh savings using the RTF methodology.
Although Pacific Power did not apply a Waste Heat Factor (WHF) adjustment to CFL savings estimates, the WHF should be applied to all future planning and evaluated CFL savings values. Cadmus recommends tracking program savings from energy-saving kits using the WHF-adjusted gross savings value of 70 kWh.	The Company adjusted kWh savings for CFL savings by applying a WHF, lower hours of use per day and revised storage factors.
Per-unit savings can be greatly affected by changes in appliance characteristics, such as configuration, age, and size. The program administrator tracks these characteristics, and	The Company now requires an annual summary of average participant unit characteristics.

Evaluation Recommendations	Pacific Power Action Plan
Pacific Power should closely monitor changes in participating units' characteristics. This could be achieved by summarizing participation data on an annual basis, and noting changes in average participant unit characteristics.	
The program administrator and Pacific Power should continue with plans to improve reporting processes to eliminate the possibility of reporting discrepancies and increase accuracy of reported results. Cadmus identified minor discrepancies in reported number of participant units, and Pacific Power has since worked with the program administrator to prevent discrepancies between program administrator reporting and Pacific Power reporting by including additional documentation in monthly reports.	The Company has improved monthly reporting and invoicing to eliminate reporting errors and improve accuracy. Monthly invoices, monthly reports and data from the vendor are all compared each month for accuracy against each other.

Table 3
Low Income Evaluation Recommendations

Evaluation Recommendations	Pacific Power Action Plan
Cadmus recommends Pacific Power use the average evaluated net savings of 1,476 kWh per participating home as a basis for future planning. This represents approximately a 7% net reduction in consumption, well within the range of other evaluations, as noted in the report's body.	The company will continue to report 1,840 kWh per home through the end of the current biennial period, December 31, 2013. DSM Planning staff is investigating whether to adjust per home savings for planning and reporting or to convert to a kWh savings per installed measure methodology in the 2014-2015 biennial period.
The evaluation found program net savings of 7% of pre-program consumption compared to 12% in the previous program evaluation (2003–2005). This was largely due to nonparticipants' usage decreasing during the same period. An option to help mitigate declining program savings would be to work with stakeholders to develop an efficient targeting pilot program for weatherizing high-use customers (i.e., low-efficiency customers burdened with above-average usage levels,	A list of customers participating in the bill discount program (Schedule 17) was developed for each of the three agency service areas, and was offered to the agencies. These customers are income eligible for weatherization services. The lists include the annual and winter kWh usage for each household so it can be used by the agencies to help prioritize customers with high usage.

Evaluation Recommendations	Pacific Power Action Plan
while controlling for other factors, such as household size or square footage. This approach is consistent with how to prioritize weatherization services outlined in the Weatherization Manual for Managing the Low-Income Weatherization Program.	
Agencies communicated that approximately 30-66% of all homes they serve result in walk-aways. One agency reported that up to 80% of these walk-aways are due to insufficient funding mechanisms for health and safety or other repairs. Furthermore, one agency reported that if they had extra flexibility in using Pacific Power funds, such as receiving up to 20% of total rebates claimed for repairs or health and safety upgrades, they could go after homes with marginally higher repair costs, but are good candidates for energy efficiency upgrades. Cadmus recommends Pacific Power investigate increasing the percent of funding allowable for health and safety or other repairs to understand how such a change would impact program participation, energy savings, and overall program cost-effectiveness.	The Program Manager conferred with agencies about increasing health, safety and repair funding beyond 15%. They have other sources of funds for these measures and only one agency, serving less than 20% of the completed homes, has reached the current 15% limit. The other two agency health, safety and repair billings to Pacific Power are for considerably less than 15% and they did not indicate a need to revise the funding, so at this time an adjustment is not warranted.

Table 4
Energy FinAnswer Evaluation Recommendations

Evaluation Recommendations	Pacific Power Action Plan
Include energy and demand savings calculations in a spreadsheet format. By providing this information in one consolidated location, future evaluation efforts will be more efficient and reduce the potential for comparing verified savings to incorrect or outdated project assumptions. » Although each project properly documented the reported energy and demand savings estimates, the absence of savings calculations (particularly for demand savings) reduces the transparency of reported	Company will update report templates to capture key elements of the evaluation findings pending a cost to benefit evaluation of the recommendation. Customers have indicated a high degree of satisfaction with the content and format of company issued Final Inspection reports concerning customer implemented projects. Company provides consulting engineers a report template standard that will be review annually confirming ongoing adherence and evaluation of potential enhancement to meet customer identified needs.

Evaluation Recommendations	Pacific Power Action Plan
savings, along with the efficiency of evaluation efforts. Providing both the input assumptions and savings calculation methodologies will ensure the comparability and accuracy of reported and evaluated savings and will reduce associated evaluation costs. » Include the clearly identified final Energy Savings table in project files for the evaluation. The data should include both baseline and current energy and demand usage as well as savings estimates. Utilizing consistent formats based on the FINAL numbers is important for all follow up activities, and will provide decision makers the key information needed to quickly assess the situation and take appropriate action relative to the inspections conducted. It is noted that the key elements are included in the documentation for each project, but it is often difficult to identify the final set of parameters used because the project files capture multiple changes/revisions to the application process.	

Table 5
FinAnswer Express Evaluation Recommendations

Evaluation Recommendations	Pacific Power Action Plan
Modify reported operating hours in project files to specify lighting hours, effects of seasonality, and specific holidays. This will help clarify the analysis process and result in better estimates of actual savings. The current FinAnswer Express application is one of the better designed applications that the Evaluation Team has observed. It collects	

Evaluation Recommendations	Pacific Power Action Plan
essential information in a simple and concise manner. In Washington, the evaluation team observed that approximately 26% of the sites sampled had seasonal variation in operating hours; this is indicative of the nature of the customers in PacifiCorp's Washington service territory. These customers include food and fruit processing, which have heavy seasonal variation in operating hours. The following modifications would clarify the analysis process and create less variation in realization rates, and better overall savings estimates in future program cycles:	
• When listing the hours of operation, Pacific Power should reflect changes in operating hours due to seasonality. For example, a fruit production company might run on one schedule for most of the year, except for 4 months during peak season when all lights are on. This seasonality adjustment allows for a more accurate characterization of annual operating hours. This is particularly important for fruit and food processing sites that are prevalent in Washington.	For lighting projects where the hours of operation vary by season, seasonality is currently accounted for in the hours of operation entered in the lighting tool for a project. Notes in the project file show how the operating hours were determined. To improve the documentation, Pacific Power is exploring options for modifying the tool and/or processes to improve documentation to reflect seasonality for hours of operation for lighting.
• Operation schedules should reflect lighting schedules for specific parts of the building, by lighting group. The hours of operation should specifically reflect the hours that lights are on in a certain schedule group since business hours don't always reflect lighting hours. For example, if the front office is occupied 9 hours a day M-F, Pacific Power should ask the customer whether the lights are also on for 9 hours a day. Sometimes asking that clarification question will result in drastically different annual operating hours for an area.	The lighting tool allows the user to enter up to 5 different operating schedules per project. If additional schedules are needed, additional tools can be used. The tool has a schedule "X" that is available to select for 24 hour operations that run 8,760 hours per year. Users enter fixtures by area, grouping like fixtures with the same operating schedule together and designate which of the schedules applies for that area. The hours of operation represent the best estimate for the hours the lighting is on for that area, regardless of the stated hours of the business.
• Instead of asking whether the business is open for major holidays as a yes/no question and the number of total	Pacific Power will consider asking customers the specific holidays (e.g. by date) that lights

Evaluation Recommendations	Pacific Power Action Plan
holidays in a year, Pacific Power should consider asking customers the specific days that lights are not operational. For example, a warehouse could have five annual holidays. However, the lights may still be on the same working schedule during those five days. In addition, if some of those five days fall during the peak operating season, overall savings estimates could be altered, especially in cases of warehouses and fruit processing plants in Washington.	are not operational and incorporating that into the lighting tool. Given the limited potential for improving the savings estimates, it is unlikely this recommendation will be implemented. However, the lighting tool has been revised to capture the specific number of holidays for each project.

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Appendix 5

FinAnswer Express Trade Ally's

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Energy Efficiency Alliance

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The following is a list of contractors, distributors and other businesses participating in Pacific Power's Energy Efficiency Alliance displayed in random order (unless sorted by the user) based on the search criteria selected. This listing is provided solely as a convenience to our customers. Pacific Power does not warrant or guarantee the work performed by these participating vendors. You are solely responsible for any contract with a participating vendor and the performance of any vendor you have chosen.
An asterisk (*) indicates Pacific Power Outstanding Contribution Award winning trade allies in 2006, 2007, 2008, 2009, 2010, 2011 and/or 2012

Search Criteria:

Selected State(s):	Washington
Specialties:	Lighting HVAC - unitary HVAC - evaporative Motors and VFDs Controls Building envelope Appliances Office equipment Food Service Compressed Air Farm and Dairy Irrigation Other
Business Type:	--ANY--

Search Results: 87 - Date and Time: 03/18/2013 05:31:57 PM

	Specialties	Business Type	Join Date	Projects Completed
DeLaval Direct Distribution Sunnyside, WA Phone: 509-837-7254	Motors and VFDs	Distributor Other: Other	06/01/2004	
Telkonet Inc 10200 Innovation Dr Suite 300 Milwaukee, WI Phone: 480-652-6814 Website: telkonet.com	HVAC - unitary	Distributor	08/01/2008	
Davis Pumps PO Box 566 Sunnyside, WA Phone: 509-837-5303	Motors and VFDs	Contractor	03/01/2006	
Dykman Electrical, Inc. - Portland, OR 3030 NW 29th Ave Portland, OR Phone: 503-223-2992	Motors and VFDs	Distributor	07/01/2004	
Total Energy Management 1975 Butler Loop Richland, WA Phone: 509-946-4500	HVAC - unitary	Contractor	08/01/2004	2
Excel Dairy Service 4100 Outlook Rd. Sunnyside, WA Phone: 509-643-1773	Farm and Dairy Lighting Other: Other Specialty	Contractor	06/18/2009	
Meier Architecture & Engineering 8697 W. Gage Blvd. Kennewick, WA Phone: 509-735-1589 Website: meierinc.com	HVAC - unitary Lighting Motors and VFDs Other: Other Specialty	Architect	02/01/2012	
Apollo Sheet Metal 1207 W. Columbia Dr. Kennewick, WA Phone: 509-586-1104 Website: apollosm.com	HVAC - unitary Motors and VFDs	Distributor	04/01/2006	13

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	Specialties	Business Type	Join Date	Projects Completed
Walla Walla Electric* 1225 W. Poplar Walla Walla, WA Phone: 509-525-8672 Website: wwelectric.com	Lighting	Contractor	04/09/2001	85
Greenwalt Electric LLC 191 Mini Pines Road Yakima, WA Phone: 509-966-7083	Lighting Motors and VFDs	Contractor	10/28/2008	9
Mantey Heating & Air 3703 W. Nobhill Blvd. Yakima, WA Phone: 509-966-5520	HVAC - unitary Motors and VFDs	Contractor	10/01/2005	
Kinter Electric* 2761 E. Edison Rd. PO Box 1058, Sunnyside, WA Phone: 509-839-3900 Website: www.kinterelectric.com	Lighting	Contractor	10/31/2009	44
Stusser Electric Company 116 N. 2nd Ave. Yakima, WA Phone: 509-453-0378	HVAC - unitary Lighting Motors and VFDs	Distributor	04/28/2007	7
Roberts Electrical Inc. 13761 US Highway 12 Naches, WA Phone: 509-930-3803	HVAC - unitary Lighting Motors and VFDs	Contractor	05/01/2012	2
Hoydar-Buck Inc. 210 West Orchard Ave Selah, WA Phone: 509-697-8800	Lighting	Contractor	09/28/2009	2
Linden Electric, Inc. 9401 Mieras Rd Yakima, WA Phone: 509-575-1191	Lighting	Contractor	07/06/2006	6
Ameresco Inc 639 Isbell Rd. Suite 360 Reno, NV Phone: 508-598-4506 Website: ameresco.com	HVAC - unitary Motors and VFDs Other: Other Specialty	Other: Other	05/01/2009	
ecomodus 3821 East 58th Lane Spokane, WA Phone: 509-307-4363	Lighting	Contractor	02/01/2012	26
FGI, llc 932 W. 32nd Avenue Spokane, WA Phone: 800-630-7345 Website: www.fgillumination.com	Lighting	Other: Consultant	03/12/2013	
Central Chain & Transmission 702 S. 2nd Street Yakima, WA Phone: 509-457-6188	Motors and VFDs	Distributor	12/01/2004	
Dilbeck Electric, Inc.* 517 S. 2nd Avenue Yakima, WA Phone: 509-575-4666	Lighting Motors and VFDs	Contractor	06/01/2005	6

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	Specialties	Business Type	Join Date	Projects Completed
Platt Electric Supply - Walla Walla 415 West Main Walla Walla, WA Phone: 509-522-0611 Website: platt.com	Lighting	Distributor	04/07/2007	18
Applied Industrial Technologies - Spokane 301 N. Fancher Rd. Spokane, WA Phone: 509-535-2955 Website: www.applied.com	Motors and VFDs	Distributor	10/01/2004	
Extra Effort Consulting & Supply 14530 SW 144th Ave. Tigard, OR Phone: 503-780-2359 Website: www.ExtraEffortLLC.com	Lighting Motors and VFDs	Distributor	04/01/2012	
Eastside Electric Spokane, WA Phone: 509-922-2112 Website: www.eastsideelectric.com	Motors and VFDs	Contractor	11/01/2004	
Norstar Electric 11780 Mieras Rd. Yakima, WA Phone: 509-961-8161	Lighting	Contractor	01/01/2006	5
North Coast Electric - Pasco 1928 West A Street Pasco, WA Phone: 509-547-9514 Website: www.northcoastelectric.com	Lighting	Distributor	09/21/2012	null
Grassi Refrigeration 1445 W. Rose Walla Walla, WA Phone: 509-529-9700	HVAC - unitary Motors and VFDs	Contractor	06/01/2006	
Pro Controls Inc. 1312 Gordon Rd Yakima, WA Phone: 509-388-4186 Website: procontrolsyakima.com	Controls HVAC - unitary Lighting Motors and VFDs	Contractor	07/01/2012	
MH Electric Inc.* 2607 Pleasant Avenue Yakima, WA Phone: 509-952-4464	Lighting Motors and VFDs	Contractor	01/06/2010	69
Columbia Electric Supply 932 N 13TH AVE Walla Walla, WA Phone: 509-522-1419	HVAC - unitary Lighting Motors and VFDs	Distributor	01/01/2008	2
Electrical Frontier Inc. 4240 Thorp Road Moxee, WA Phone: 509-945-5703	Lighting	Contractor	07/01/2012	1
Beckstead Electric Inc 92 9th Street Wenatchee, WA Phone: 509-663-1148	Motors and VFDs	Contractor	03/01/2008	

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	Specialties	Business Type	Join Date	Projects Completed
Doyle Electric Inc. 1421 Dell Avenue Walla Walla, WA Phone: 509-529-2500 Website: doyleelectric.com	Lighting	Contractor	10/15/2006	7
Platt Electric Supply - Yakima 16 S. 1st Avenue Yakima, WA Phone: 509-452-6444 Website: platt.com	Lighting	Distributor	08/16/2006	8
Thermex Valley Heating & AC 1916 Fruitvale Blvd. Yakima, WA Phone: 509-965-0630 Website: thermexvalley.com	HVAC - unitary Motors and VFDs	Contractor	07/01/2004	
Ziegler Electric* 202 Country Crest Rd Yakima, WA Phone: 509-930-3300	Lighting	Contractor	04/01/2001	57
Real Green LED 4280 W. 200 N. Cedar City, UT Phone: 951-235-0382 Website: www.realgreen.net	Lighting	Distributor	08/01/2011	
Tanko Lighting 903 Palou Ave. San Francisco, CA Phone: 415-407-5608	Lighting	Other: Energy Services Company	09/21/2012	null
Lake Shore Electric, Inc.* 9702 Tieton Dr. Yakima, WA Phone: 509-965-4281	Lighting Motors and VFDs Other: Other Specialty	Contractor	05/12/2009	6
Enviroefficiency, Inc. 270 Summers Circle Walla Walla, WA Phone: 509-540-0094 Website: enviroefficiencyinc.com	Lighting Other: Other Specialty	Distributor	11/03/2011	1
Hendon Electric 82075 Hwy 395 N Umatilla, OR Phone: 541-922-3844	Lighting	Contractor	03/01/2005	5
Energy Industries 10220 N Nevada, STE 60 Spokane, WA Phone: 208-859-6713 Website: energy-industries.com	Lighting	Contractor	10/03/2003	7
Kapco LLC / Parsons Electric Yakima, WA Phone: 509-930-1292	Motors and VFDs	Contractor	07/01/2007	
Dykman Electrical, Inc. - Kennewick 425 N. Columbia Center Blvd #N104 Kennewick, WA Phone: 509-781-0525 Website: www.dykman.com	Motors and VFDs	Distributor	11/01/2006	
Central Mechanical Services 619 W. J St. Yakima, WA Phone: 509-248-5944	HVAC - unitary	Contractor	08/01/2004	

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	Specialties	Business Type	Join Date	Projects Completed
PermaCold Engineering, Inc. 2945 NW Argyle St Portland, OR Phone: 503-249-8190	Motors and VFDs	Contractor	09/01/2005	
North Coast Electric - Wenatchee 1415 N Miller Wenatchee, WA Phone: 509-663-8603 Website: www.northcoastelectric.com	Lighting	Distributor	09/21/2012	null
Picatti Brothers Inc. 105 S. 3rd St. Yakima, WA Phone: 509-248-2540	Lighting Motors and VFDs	Contractor	06/18/2009	
Nico Electrical Contracting P.O. Box 476 Walla Walla, WA Phone: 509-526-9658	Lighting	Contractor	09/21/2012	2
Blue Chip Group Technology, Inc. 520 S Bertelsen Rd Eugene, OR Phone: 541-343-1300 Website: bcgled.com	Lighting	Other: Other	04/11/2011	
All-Phase Electric, Inc. 2500 S 12th Ave Union Gap, WA Phone: 509-454-5093 Website: allphaseelectric.org	Lighting	Contractor	06/08/2006	31
Micro Computer Systems 12631 Beverly Park Road Lynnwood, WA Phone: 800-658-1000 x 9889 Website: www.microk12.com	Office equipment Other: Other Specialty	Other: Other	04/01/2012	
Parsons Electric 415 Viewmont Pl. Yakima, WA Phone: 509-930-1292	Lighting	Contractor	08/03/2007	9
Allard Enterprises 4506 Maple Ave. Yakima, WA Phone: 509-575-0955	HVAC - unitary Motors and VFDs	Contractor	04/01/2006	
Tolman Electric 160 Linderman Road Maben, WA Phone: 509-830-1164	HVAC - unitary Lighting Motors and VFDs	Contractor	04/10/2010	1
A & T Quality Electric LLC 4271 N Wenas Rd Selah, WA Phone: 509-985-9890	HVAC - unitary Lighting Motors and VFDs	Contractor	07/15/2009	4
M. Campbell & Company, Inc.* 2828 W Irving St Pasco, WA Phone: 509-545-9848 Website: www.callcampbell.com	HVAC - unitary	Contractor	06/01/2004	1
T&M Heating 2711 S. 5th Ave Union Gap, WA Phone: 509-575-1088	HVAC - unitary	Contractor	07/01/2004	

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	Specialties	Business Type	Join Date	Projects Completed
Integrated Controls & Electric Inc 3920 S 3750 W West Haven, UT Phone: 801-719-0540	HVAC - unitary	Distributor	03/01/2009	
CED 131 S. 1st Ave. Yakima, WA Phone: 509-248-0872	Lighting	Distributor	01/01/2008	4
Schaefer Refrigeration, Inc. 2929 E. Isaacs Walla Walla, WA Phone: 509-525-2076	HVAC - unitary Motors and VFDs	Contractor	06/01/2004	1
Champion Lighting, Inc. 4523 S. Saint Andrews Ln Spokane, WA Phone: 509-448-4477	Lighting	Other: Other	01/20/2007	5
Freeburg's Supply Sunnyside, WA Phone: 509-830-2828	Motors and VFDs	Contractor	06/01/2004	
Bailey Electric, Inc. PO Box 10622 Yakima, WA Phone: 509-452-1128 Website: Baileyelectric.com	Lighting	Contractor	01/11/2011	6
K&N Electric Motors, Inc. 9933 N.E. Kinder Rd. Moses Lake, WA Phone: 509-765-3399 Website: knelectric.com	Motors and VFDs	Distributor	05/01/2004	3
All Seasons Heating & Air Conditioning* 302 S. 3rd Ave. Yakima, WA Phone: 509-248-6380 Website: www.allseasonsheating.com	HVAC - unitary	Contractor	06/01/2004	3
College Place Heating and Air Conditioning 970 NE Rose College Place, WA Phone: 509-525-8073 Website: www.cpheat.com	HVAC - unitary	Contractor	03/01/2010	
Northwest Electrical Supply Company (NESCO) 111 S. 3rd Ave. Yakima, WA Phone: 509-575-0354	HVAC - unitary Lighting Motors and VFDs	Distributor	09/21/2012	10
C-Mation LLC 3565 S West Temple Salt Lake City, UT Phone: 801-268-1425 Website: cmation.com	HVAC - unitary Motors and VFDs	Contractor	04/01/2009	
Dayco Heating & Air 11 N. Auburn Kennewick, WA Phone: 509-586-9464	HVAC - unitary	Contractor	04/01/2006	

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	Specialties	Business Type	Join Date	Projects Completed
Orange Dairy Service, Inc.* 2225 E Edison Sunnyside, WA Phone: 509-837-5078	Farm and Dairy HVAC - unitary Lighting Motors and VFDs Other: Other Specialty	Contractor	12/01/2005	3
Power Motion & Industrial Supply 215 S. 14th Ave. Yakima, WA Phone: 509-248-8220	Motors and VFDs	Distributor	05/01/2006	
APC Sales and Service Corp. 132 Fairgrounds Road West Kingston, RI Phone: 714-513-7371 Website: www.schneider-electric.com	HVAC - unitary Lighting	Distributor Other: Other	03/01/2012	
Twice The Light, Inc. 7714 NE Hazel Dell Ave./P.O. Box 65279 Vancouver, WA Phone: 360-901-7710	Lighting	Contractor	01/01/2012	2
Hutchinson Electric Inc. 3660 Washout Rd. Sunnyside, WA Phone: 509-391-0770	Lighting	Contractor	02/26/2007	11
Total Control Electric Inc. 5 East F Street Yakima, WA Phone: 509-453-1021	Lighting Motors and VFDs	Contractor	06/08/2006	9
Rucker Electric LLC 9001 Roza Hill Drive Yakima, WA Phone: 509-952-8339	Lighting Motors and VFDs	Contractor	10/16/2006	4
Stoneway Electric - Walla Walla 44 S Palouse Street Walla Walla, WA Phone: 509-522-1550 Website: stoneway.com	Lighting	Distributor	06/08/2006	3
Evolve Guest Controls 85 Denton Avenue New Hyde Park, NY Phone: 516-448-1862 Website: eguestcontrols.com	Other: Other Specialty	Manufacturer - Rep Other: Other	06/01/2012	
Schneider Electric Buildings Americas, Inc. 95 S. Jacson Seattle, WA Phone: 360-823-3040 Website: www.schneider-electric.com	HVAC - unitary Lighting Motors and VFDs	Contractor	10/10/2010	
Applied Industrial Technologies - Yakima 909 N. Front St. Yakima, WA Phone: 509-457-1600 Website: www.applied.com	Motors and VFDs	Distributor	10/01/2004	
S & S Electric 315 White Walla Walla, WA Phone: 509-525-7720	Lighting	Contractor	05/31/2005	2

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	Specialties	Business Type	Join Date	Projects Completed
Current Electric Solution 11979 W. Hwy 12 Lowden, WA Phone: 509-526-0161 Website: www.currentelectricsolutions.com	Controls Irrigation Lighting Motors and VFDs Other: Other Specialty	Contractor	12/14/2012	
Applied Industrial Technologies - Pasco 1320 West A Street Pasco, WA Phone: 509-547-2421	Motors and VFDs	Distributor	10/19/2012	null
All-State Electric Co.* 1305 Heritage Hills Drive Selah, WA Phone: 509-941-8739 Website: telkonet.com	Lighting Motors and VFDs Other: Other Specialty	Contractor	01/20/2009	25
Cooper Lighting 1121 Highway 74 South Peachtree City, GA Phone: 770-486-3092 x 3092 Website: www.cooperlighting.com	Controls Lighting	Manufacturer - Rep	11/20/2012	null

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Appendix 6
Communications

Pacific Power

Communications 2012

Energy Efficiency in the News – Washington

Interest pays for Wapato police, fire gear, park lights – Police will get new radios and safety vests while firefighters will see new breathing apparatus equipment, thanks to $220,000 the city has received in interest on housing rehab loans. …'90s," he said of the lights. "There is new (energy-saving) lighting available and tied in with Pacific Power, so we get a pretty good package." (*Yakima Herald-Republic*, March 21, 2012)

Pacific Power offering "watt smart" incentives to customers – Pacific Power is offering some incentives to customers to buy energy efficient items. (*NBC Right Now KNDO-TV*, May 18, 2012)

Pilot program designed to help reduce energy costs – More than 13,500 Pacific Power residential customers in Washington state will soon receive special home energy reports and have the opportunity to participate in a three-year pilot program designed to help them review their electricity consumption and explore ways to reduce costs through conservation and wattsmart strategies. (*Daily Sun News*, July 31, 2012)

Businesses urged to evaluate energy efficient lighting options – Being energy efficient can help businesses in many ways, according to Pacific Power and Evergreen Consulting Group representatives who spoke to Sunnyside business leaders yesterday morning. (*Daily Sun News*, Nov. 14, 2012)

wattsmart **Creative** *(click on the hyperlinks below to see the creative)*

TV
:15s
Ceiling Fan
Home Sweet Home
Lightbulb
Kilowatts
Bathroom
Dog
Santa (November, December only)

:30s
Front Door
Restaurant
RADIO
Radio
Save Energy
Better Insulation
Raise Your Thermostat
Wattsmart Décor
Wattsmart Drain
Wattsmart Newspaper
Wattsmart Sweater
Print
English
Fantasy
Inefficient
Goofy/Dog
Thermostat/Cocoa
Warm/Hat
Business print - wattsmart
Spanish
Goofy/Dog
Thermostat/Cocoa
Warm/Hat

Wattsmart handouts
Summer handout
Winter handout