

# Appendix 1 Estimated Peak Contributions 2014

Pacific Power

### **Energy Efficiency Programs**

The MW reported savings of 8.49 (at generation) for energy efficiency programs during 2014 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 2014, it is calculated that 3.12 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 (1.74 MW in 2014 for each average MWh of energy efficiency acquired) is the same as the average load profile factor of energy efficiency resources selected in the 2013 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 and NEEA savings have the same average load profile as those energy efficiency resources selected in the 2013 IRP. Utilization of this factor in determining the MW contribution of energy efficiency programs for 2014 is detailed in the table below.

Line	Description	Value
1	First year MWH EE program savings acquired during 2014	27,033
2	Average MWh value (line 1 / 8760 hours)	3.09
3	Peak MW contribution of 2014 EE acquisitions	5.37

As demonstrated, it is estimated that the residential energy efficiency program acquisitions along with savings associated with NEEA in 2014 contributed 5.37 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 3.12 MW's estimated for the business programs and the 5.37 MW's estimated for residential programs make up the 8.49 MW savings value of energy efficiency programs.



### 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 tables below present the cost-effectiveness analysis for the Washington Energy Efficiency Portfolio based on 2014 costs and savings estimates. The utility discount rate is from the 2013 PacifiCorp Integrated Resource Plan.

Cost-effectiveness inputs and results for the 2014 Portfolio presented for the total portfolio, residential sector, commercial and industrial (C&I) sector, and the total portfolio, commercial and industrial and residential portfolio including NEEA savings. This report includes the following tables:

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**Table 1 - Utility Inputs** 

Parameter	Value
Discount Rate	6.88%
Residential Line Loss	9.67%
Commercial Line Loss	9.53%
Industrial Line Loss	8.16%
Irrigation Line Loss	9.67%
Residential Energy Rate (\$/kWh)(base year 2014)	\$0.0841
Commercial Energy Rate (\$/kWh)(base year 2014)	\$0.0778
Industrial Energy Rate (\$/kWh)(base year 2014)	\$0.0655
Irrigation Energy Rate (\$/kWh)(base year 2014)	\$0.0815
Inflation Rate <sup>1</sup>	1.90%

<sup>&</sup>lt;sup>1</sup> Future rates determined using a 1.9% annual escalator.

Table 2 – Portfolio Level Costs 2014

Cost	Value
School Energy Education	\$58,260
Outreach and Communication	\$249,791
Portfolio Level Expenditures	\$834,966
Total Costs	\$1,143,017

**Table 3 – NEEA 2014** 

Value	Savings at Meter (kWh)	NEEA Expenses (\$)
Commercial	4,864,430	\$892,935
Residential	1,536,136	\$281,979
Total	6,400,566	\$1,174,914

Table 4 - Benefit/Cost Ratios by Portfolio Type

Measure Group	PTRC	TRC	UCT	RIM	PCT
Total Portfolio	1.66	1.51	2.53	0.68	2.84
Total Portfolio (Including NEEA)	1.69	1.54	2.47	0.67	3.08
Total Portfolio (Including NEEA & NEBs)	1.73	1.58	2.47	0.67	3.10
C&I Programs	1.70	1.54	2.94	0.71	2.48
C&I Programs (Including NEEA)	1.71	1.55	2.89	0.71	2.56
Residential Programs	1.95	1.78	2.69	0.68	3.79
Residential Programs (Including NEEA)	1.99	1.80	2.54	0.65	4.48
Residential Programs (Including NEEA & NEBs)	2.11	1.93	2.54	0.66	4.56

Table 5 – 2014 Total Portfolio Cost-Effectiveness Results

Cost-Effectiveness Test	Levelized \$/kWh	Costs	Benefits	Net Benefits	Benefit/Cost Ratio
Total Resource Cost Test (PTRC) + Conversation Adder	\$0.0495	\$17,305,734	\$28,755,664	\$11,449,930	1.66
Total Resource Cost Test (TRC) No Adder	\$0.0495	\$17,305,734	\$26,141,513	\$8,835,779	1.51
Utility Cost Test (UCT)	\$0.0295	\$10,323,943	\$26,141,513	\$15,817,570	2.53
Rate Impact Test (RIM)		\$38,472,615	\$26,141,513	-\$12,331,101	0.68
Participant Cost Test (PCT)		\$11,870,968	\$33,664,407	\$21,793,439	2.84
Lifecycle Revenue Impacts (\$/kWh)					\$0.000260720

Table 6 - 2014 Total Portfolio Cost-Effectiveness Results (Including NEEA)

Cost-Effectiveness Test	Levelized \$/kWh	Costs	Benefits	Net Benefits	Benefit/Cost Ratio
Total Resource Cost Test (PTRC) + Conversation Adder	\$0.0484	\$18,480,648	\$31,296,369	\$12,815,720	1.69
Total Resource Cost Test (TRC) No Adder	\$0.0484	\$18,480,648	\$28,451,244	\$9,970,596	1.54
Utility Cost Test (UCT)	\$0.0301	\$11,498,857	\$28,451,244	\$16,952,387	2.47
Rate Impact Test (RIM)		\$42,525,436	\$28,451,244	-\$14,074,192	0.67
Participant Cost Test (PCT)		\$11,870,968	\$36,542,315	\$24,671,347	3.08
Lifecycle Revenue Impacts (\$/kWh)					\$0.000324767

Table 7 - 2014 Total Portfolio Cost-Effectiveness Results (Including NEEA and NEBs)

Cost-Effectiveness Test	Levelized \$/kWh	Costs	Benefits	Net Benefits	Benefit/Cost Ratio
Total Resource Cost Test (PTRC) + Conversation Adder	\$0.0484	\$18,480,648	\$32,054,696	\$13,574,048	1.73
Total Resource Cost Test (TRC) No Adder	\$0.0484	\$18,480,648	\$29,209,572	\$10,728,924	1.58
Utility Cost Test (UCT)	\$0.0301	\$11,498,857	\$28,454,649	\$16,955,792	2.47
Rate Impact Test (RIM)		\$42,525,436	\$28,454,649	-\$14,070,788	0.67
Participant Cost Test (PCT)		\$11,870,968	\$36,791,821	\$24,920,854	3.10
Lifecycle Revenue Impacts (\$/kWh)					\$0.000324689

Table 8 – 2014 C&I Energy Efficiency Portfolio Cost-Effectiveness Results

Cost-Effectiveness Test	Levelized \$/kWh	Costs	Benefits	Net Benefits	Benefit/Cost Ratio
Total Resource Cost Test (PTRC) + Conversation Adder	\$0.0464	\$11,023,444	\$18,712,128	\$7,688,684	1.70
Total Resource Cost Test (TRC) No Adder	\$0.0464	\$11,023,444	\$17,011,025	\$5,987,581	1.54
Utility Cost Test (UCT)	\$0.0244	\$5,791,310	\$17,011,025	\$11,219,715	2.94
Rate Impact Test (RIM)		\$23,828,030	\$17,011,025	-\$6,817,005	0.71
Participant Cost Test (PCT)		\$8,646,853	\$21,451,439	\$12,804,586	2.48
Lifecycle Revenue Impacts (\$/kWh)					\$0.000122651

Table 9 - 2014 C&I Energy Efficiency Portfolio Cost-Effectiveness Results (Including NEEA)

Cost-Effectiveness Test	Levelized \$/kWh	Costs	Benefits	Net Benefits	Benefit/Cost Ratio
Total Resource Cost Test (PTRC) + Conversation Adder	\$0.0461	\$11,305,424	\$19,321,309	\$8,015,886	1.71
Total Resource Cost Test (TRC) No Adder	\$0.0461	\$11,305,424	\$17,564,827	\$6,259,403	1.55
Utility Cost Test (UCT)	\$0.0247	\$6,073,290	\$17,564,827	\$11,491,537	2.89
Rate Impact Test (RIM)		\$24,760,665	\$17,564,827	-\$7,195,838	0.71
Participant Cost Test (PCT)		\$8,646,853	\$22,102,094	\$13,455,241	2.56
Lifecycle Revenue Impacts (\$/kWh)					\$0.000139550

Table 10 – 2014 Residential Energy Efficiency Portfolio Cost-Effectiveness Results

Cost-Effectiveness Test	Levelized \$/kWh	Costs	Benefits	Net Benefits	Benefit/Cost Ratio
Total Resource Cost Test (PTRC) + Conversation Adder	\$0.0459	\$5,139,273	\$10,043,536	\$4,904,263	1.95
Total Resource Cost Test (TRC) No Adder	\$0.0459	\$5,139,273	\$9,130,488	\$3,991,215	1.78
Utility Cost Test (UCT)	\$0.0303	\$3,389,616	\$9,130,488	\$5,740,872	2.69
Rate Impact Test (RIM)		\$13,501,568	\$9,130,488	-\$4,371,080	0.68
Participant Cost Test (PCT)		\$3,224,115	\$12,212,968	\$8,988,853	3.79
Lifecycle Revenue Impacts (\$/kWh)					\$0.000123080

Table 11 - 2014 Residential Energy Efficiency Portfolio Cost-Effectiveness Results (Including NEEA)

Cost-Effectiveness Test	Levelized \$/kWh	Costs	Benefits	Net Benefits	Benefit/Cost Ratio
Total Resource Cost Test (PTRC) + Conversation Adder	\$0.0442	\$6,032,208	\$11,975,059	\$5,942,851	1.99
Total Resource Cost Test (TRC) No Adder	\$0.0442	\$6,032,208	\$10,886,417	\$4,854,209	1.80
Utility Cost Test (UCT)	\$0.0314	\$4,282,551	\$10,886,417	\$6,603,867	2.54
Rate Impact Test (RIM)		\$16,621,755	\$10,886,417	-\$5,735,338	0.65
Participant Cost Test (PCT)		\$3,224,115	\$14,440,221	\$11,216,106	4.48
Lifecycle Revenue Impacts (\$/kWh)					\$0.000182034

Table 12 - 2014 Residential Energy Efficiency Portfolio Cost-Effectiveness Results (Including NEEA and NEBs)

Cost-Effectiveness Test	Levelized \$/kWh	Costs	Benefits	Net Benefits	Benefit/Cost Ratio
Total Resource Cost Test (PTRC) + Conversation Adder	\$0.0442	\$6,032,208	\$12,733,387	\$6,701,179	2.11
Total Resource Cost Test (TRC) No Adder	\$0.0442	\$6,032,208	\$11,644,745	\$5,612,537	1.93
Utility Cost Test (UCT)	\$0.0314	\$4,282,551	\$10,889,822	\$6,607,271	2.54
Rate Impact Test (RIM)		\$16,621,755	\$10,889,822	-\$5,731,933	0.66
Participant Cost Test (PCT)		\$3,224,115	\$14,689,727	\$11,465,613	4.56
Lifecycle Revenue Impacts (\$/kWh)					\$0.000181926

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

**Table 13 – Low Income Weatherization Non-Energy Benefits** 

Non-Energy Benefit	Program Impact	Perspective Adjusted
Arrearage Reduction	\$3,177	TRC, PTRC, UCT, RIM
Capital Cost Savings	\$228	TRC, PTRC, UCT, RIM
Economic Impact	\$505,417	TRC, PTRC
Home Repair Costs	\$48,080	TRC, PTRC, PCT
Total	\$556,901	-

Table 14 - Home Energy Savings (Appliance) Non-Energy Benefits

Non-Energy Benefits	Non-Energy Benefits per Measure	Total Installs	Measure Life	Total Present Value Benefits
Clothes Washer (MEF ≥ 2.46 & WF ≤ 4)	\$81.00	264	14	\$201,305
Dishwasher	\$0.31	46	12	\$122
New Homes Dishwashers	\$0.31	0	12	\$0
Total	-	-	-	\$201,427

### **Program Level Cost Effectiveness**

### **Home Energy Savings Program**

Navigant estimated the cost-effectiveness results for the Washington Home Energy Savings Program, based on 2014 costs and savings estimates provided by PacifiCorp. This memo provides the cost-effectiveness results for the overall program and for the 7 measure categories.

Cost-effectiveness was tested using the 2013 IRP West Residential Whole House 49% and West Residential Lighting 48% load factor decrements. The program passes the cost-effectiveness for all the tests except the RIM test. The memo consists of the following tables.

- Table 15 Home Energy Savings Inputs
- Table 16 Home Energy Savings Annual Program Costs
- Table 17 Home Energy Savings Savings by Measure Category
- Table 18 Benefit/Cost Ratios by Measure Category
- Table 19 Home Energy Savings Program Level Cost-Effectiveness Results
- Table 20 Home Energy Savings Appliances Cost-Effectiveness Results
- Table 21 Home Energy Savings Building Shell Cost-Effectiveness Results
- Table 22 Home Energy Savings Energy Kits Cost-Effectiveness Results
- Table 23 Home Energy Savings HVAC Cost-Effectiveness Results
- Table 24 Home Energy Savings Lighting Cost-Effectiveness Results
- Table 25 Home Energy Savings Water Heating Cost-Effectiveness Results
- Table 26 Home Energy Savings Whole Home Cost-Effectiveness Results
- Table 27 Home Energy Savings Appliances Non-Energy Benefits
- Table 28 Home Energy Savings Appliances (with NEBs) Cost-Effectiveness Results
- Table 29 Home Energy Savings Program Cost-Effectiveness Results with Non-Energy Benefits

Table 15 - Home Energy Savings Inputs

Parameter	Value
Discount Rate	6.88%
Residential Line Loss	9.67%
Residential Energy Rate (\$/kWh)(base year 2014)	\$0.0841
Inflation Rate <sup>1</sup>	1.90%

<sup>&</sup>lt;sup>1</sup> Future rates determined using a 1.9% annual escalator.

**Table 16 – Home Energy Savings Annual Program Costs** 

Measure Group	Engineering Costs	Utility Admin	Program Delivery	Program Dev.	Incentives	Total Utility Costs	Gross Customer Costs
Appliance	\$0	\$437	\$6,327	\$0	\$18,675	\$25,440	\$82,040
Building Shell	\$0	\$4,437	\$64,190	\$0	\$146,093	\$214,720	\$374,448
Energy Kits	\$0	\$15,906	\$230,125	\$0	\$159,890	\$405,922	\$186,762
HVAC	\$0	\$20,159	\$291,655	\$0	\$612,991	\$924,805	\$1,122,624
Lighting	\$0	\$7,091	\$102,592	\$0	\$435,959	\$545,642	\$1,378,548
Water Heating	\$0	\$491	\$7,099	\$0	\$32,849	\$40,439	\$39,572
Whole Home	\$0	\$1,167	\$16,885	\$0	\$68,000	\$86,052	\$40,120
Total	\$0	\$49,689	\$718,874	\$0	\$1,474,457	\$2,243,020	\$3,224,115

Table 17 - Home Energy Savings - Savings by Measure Category

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Measure Group	Gross kWh Savings	Realization Rate	Adjusted Gross kWh Savings	Net to Gross Ratio	Net kWh Savings	Measure Life
Appliance	47,371	100%	47,371	100%	47,371	15
Building Shell	480,565	100%	480,565	100%	480,565	45
Energy Kits	4,298,641	100%	4,298,641	100%	4,298,641	9
HVAC	2,183,515	100%	2,183,515	100%	2,183,515	19
Lighting	5,568,312	100%	5,568,312	100%	5,568,312	7
Water Heating	53,151	100%	53,151	100%	53,151	15
Whole Home	126,412	100%	126,412	100%	126,412	45
Total	12,757,968	100%	12,757,968	100%	12,757,968	12

Table 18 - Benefit/Cost Ratios by Measure Category

Measure Group	PTRC	TRC	UCT	RIM	PCT
Appliance	0.47	0.42	1.48	0.54	0.77
Appliance (with NEBs)	2.73	2.69	1.48	0.54	3.23
Building Shell	1.94	1.76	3.63	0.78	2.47
Energy Kits	5.68	5.16	5.50	0.71	15.63
HVAC	2.10	1.91	2.97	0.83	2.68
Lighting	1.78	1.61	4.40	0.70	2.43
Water Heating	1.02	0.92	1.08	0.48	2.09
Whole Home	2.90	2.64	1.78	0.53	6.81
Total	2.31	2.10	3.74	0.74	3.29
Total (with NEBs)	2.36	2.15	3.74	0.74	3.36

Table 19 - Home Energy Savings Program Level Cost-Effectiveness Results

Cost-Effectiveness Test	Levelized \$/kWh	Costs	Benefits	Net Benefits	Benefit/Cost Ratio
Total Resource Cost Test (PTRC) + Conversation Adder	\$0.0395	\$3,992,677	\$9,234,875	\$5,242,198	2.31
Total Resource Cost Test (TRC) No Adder	\$0.0395	\$3,992,677	\$8,395,341	\$4,402,664	2.10
Utility Cost Test (UCT)	\$0.0222	\$2,243,020	\$8,395,341	\$6,152,321	3.74
Rate Impact Test (RIM)		\$11,384,727	\$8,395,341	-\$2,989,386	0.74
Participant Cost Test (PCT)		\$3,224,115	\$10,616,164	\$7,392,050	3.29
Lifecycle Revenue Impacts (\$/kWh)					\$0.000062866
Discounted Participant Payback (years)					1.62

Table 20 through Table 26 provides cost-effectiveness results for all 7 measures.

Table 20 - Home Energy Savings Appliances Cost-Effectiveness Results (2013 IRP West Residential Whole House 49%)

Cost-Effectiveness Test	Levelized \$/kWh	Costs	Benefits	Net Benefits	Benefit/Cost Ratio
Total Resource Cost Test (PTRC) + Conversation Adder	\$0.1804	\$88,805	\$41,396	-\$47,409	0.47
Total Resource Cost Test (TRC) No Adder	\$0.1804	\$88,805	\$37,632	-\$51,172	0.42
Utility Cost Test (UCT)	\$0.0517	\$25,440	\$37,632	\$12,193	1.48
Rate Impact Test (RIM)		\$69,970	\$37,632	-\$32,338	0.54
Participant Cost Test (PCT)		\$82,040	\$63,206	-\$18,834	0.77
Lifecycle Revenue Impacts (\$/kWh)					\$0.000000542
Discounted Participant Payback (years)					27.27

Table 21 - Home Energy Savings Building Shell Cost-Effectiveness Results (2013 IRP West Residential Whole House 49%)

Cost-Effectiveness Test	Levelized \$/kWh	Costs	Benefits	Net Benefits	Benefit/Cost Ratio
Total Resource Cost Test (PTRC) + Conversation Adder	\$0.0517	\$443,075	\$858,045	\$414,970	1.94
Total Resource Cost Test (TRC) No Adder	\$0.0517	\$443,075	\$780,041	\$336,966	1.76
Utility Cost Test (UCT)	\$0.0251	\$214,720	\$780,041	\$565,321	3.63
Rate Impact Test (RIM)		\$995,131	\$780,041	-\$215,090	0.78
Participant Cost Test (PCT)		\$374,448	\$926,504	\$552,056	2.47
Lifecycle Revenue Impacts (\$/kWh)					\$0.000001189
Discounted Participant Payback (years)					6.28

Table 22 - Home Energy Savings Energy Kits Cost-Effectiveness Results (2013 IRP West Residential Whole House 49%)

Cost-Effectiveness Test	Levelized \$/kWh	Costs	Benefits	Net Benefits	Benefit/Cost Ratio
Total Resource Cost Test (PTRC) + Conversation Adder	\$0.0142	\$432,794	\$2,457,289	\$2,024,496	5.68
Total Resource Cost Test (TRC) No Adder	\$0.0142	\$432,794	\$2,233,899	\$1,801,106	5.16
Utility Cost Test (UCT)	\$0.0133	\$405,922	\$2,233,899	\$1,827,978	5.50
Rate Impact Test (RIM)		\$3,165,964	\$2,233,899	-\$932,064	0.71
Participant Cost Test (PCT)		\$186,762	\$2,919,932	\$2,733,170	15.63
Lifecycle Revenue Impacts (\$/kWh)					\$0.000026245
Discounted Participant Payback (years)					0.07

Table 23 - Home Energy Savings HVAC Cost-Effectiveness Results (2013 IRP West Residential Whole House 49%)

Cost-Effectiveness Test	Levelized \$/kWh	Costs	Benefits	Net Benefits	Benefit/Cost Ratio
Total Resource Cost Test (PTRC) + Conversation Adder	\$0.0543	\$1,434,438	\$3,017,942	\$1,583,504	2.10
Total Resource Cost Test (TRC) No Adder	\$0.0543	\$1,434,438	\$2,743,584	\$1,309,146	1.91
Utility Cost Test (UCT)	\$0.0350	\$924,805	\$2,743,584	\$1,818,779	2.97
Rate Impact Test (RIM)		\$3,318,390	\$2,743,584	-\$574,806	0.83
Participant Cost Test (PCT)		\$1,122,624	\$3,006,575	\$1,883,951	2.68
Lifecycle Revenue Impacts (\$/kWh)					\$0.000007590
Discounted Participant Payback (years)					2.85

Table 24 - Home Energy Savings Lighting Cost-Effectiveness Results (2013 IRP West Residential Lighting 48%)

Cost-Effectiveness Test	Levelized \$/kWh	Costs	Benefits	Net Benefits	Benefit/Cost Ratio
Total Resource Cost Test (PTRC) + Conversation Adder	\$0.0462	\$1,488,231	\$2,643,323	\$1,155,091	1.78
Total Resource Cost Test (TRC) No Adder	\$0.0462	\$1,488,231	\$2,403,021	\$914,789	1.61
Utility Cost Test (UCT)	\$0.0169	\$545,642	\$2,403,021	\$1,857,378	4.40
Rate Impact Test (RIM)		\$3,453,532	\$2,403,021	-\$1,050,511	0.70
Participant Cost Test (PCT)		\$1,378,548	\$3,343,849	\$1,965,300	2.43
Lifecycle Revenue Impacts (\$/kWh)					\$0.000038202
Discounted Participant Payback (years)					2.02

Table 25 - Home Energy Savings Water Heating Cost-Effectiveness Results (2013 IRP West Residential Whole House 49%)

Cost-Effectiveness Test	Levelized \$/kWh	Costs	Benefits	Net Benefits	Benefit/Cost Ratio
Total Resource Cost Test (PTRC) + Conversation Adder	\$0.0854	\$47,162	\$47,952	\$789	1.02
Total Resource Cost Test (TRC) No Adder	\$0.0854	\$47,162	\$43,592	-\$3,570	0.92
Utility Cost Test (UCT)	\$0.0732	\$40,439	\$43,592	\$3,153	1.08
Rate Impact Test (RIM)		\$90,403	\$43,592	-\$46,811	0.48
Participant Cost Test (PCT)		\$39,572	\$82,813	\$43,241	2.09
Lifecycle Revenue Impacts (\$/kWh)					\$0.000000785
Discounted Participant Payback (years)					1.50

Table 26 - Home Energy Savings Whole Home Cost-Effectiveness Results (2013 IRP West Residential Whole House 49%)

Cost-Effectiveness Test	Levelized \$/kWh	Costs	Benefits	Net Benefits	Benefit/Cost Ratio
Total Resource Cost Test (PTRC) + Conversation Adder	\$0.0258	\$58,172	\$168,929	\$110,756	2.90
Total Resource Cost Test (TRC) No Adder	\$0.0258	\$58,172	\$153,571	\$95,399	2.64
Utility Cost Test (UCT)	\$0.0382	\$86,052	\$153,571	\$67,519	1.78
Rate Impact Test (RIM)		\$291,338	\$153,571	-\$137,767	0.53
Participant Cost Test (PCT)		\$40,120	\$273,286	\$233,166	6.81
Lifecycle Revenue Impacts (\$/kWh)					\$0.000000762
Discounted Participant Payback (years)					n/a

In addition to the energy benefits reported above, appliances in the Home Energy Savings program offer significant non-energy benefits (NEBs) in the form of water savings. Table 27 details the non-energy benefits for appliances.

Table 27 - Home Energy Savings Appliances Non-Energy Benefits

Non-Energy Benefits	Non-Energy Benefits per Measure	Total Installs	Measure Life	Total Present Value Benefits
Clothes Washer (MEF ≥ 2.46 & WF ≤ 4)	\$81.00	264	14	\$201,305
Dishwasher	\$0.31	46	12	\$122
New Homes Dishwashers	\$0.31	0	12	\$0
Total	-	-	-	\$201,427

Table 28 - Home Energy Savings Appliances (with NEBs) Cost-Effectiveness Results (2013 IRP West Residential Whole House 49%)

Cost-Effectiveness Test	Levelized \$/kWh	Costs	Benefits	Net Benefits	Benefit/Cost Ratio
Total Resource Cost Test (PTRC) + Conversation Adder	\$0.1804	\$88,805	\$242,823	\$154,018	2.73
Total Resource Cost Test (TRC) No Adder	\$0.1804	\$88,805	\$239,060	\$150,255	2.69
Utility Cost Test (UCT)	\$0.0517	\$25,440	\$37,632	\$12,193	1.48
Rate Impact Test (RIM)		\$69,970	\$37,632	-\$32,338	0.54
Participant Cost Test (PCT)		\$82,040	\$264,633	\$182,593	3.23
Lifecycle Revenue Impacts (\$/kWh)					\$0.000000542
Discounted Participant Payback (years)					27.27

Table 29 - Home Energy Savings Program Cost-Effectiveness Results with Non-Energy Benefits

Cost-Effectiveness Test	Levelized \$/kWh	Costs	Benefits	Net Benefits	Benefit/Cost Ratio
Total Resource Cost Test (PTRC) + Conversation Adder	\$0.0395	\$3,992,677	\$9,436,303	\$5,443,625	2.36
Total Resource Cost Test (TRC) No Adder	\$0.0395	\$3,992,677	\$8,596,769	\$4,604,091	2.15
Utility Cost Test (UCT)	\$0.0222	\$2,243,020	\$8,395,341	\$6,152,321	3.74
Rate Impact Test (RIM)		\$11,384,727	\$8,395,341	-\$2,989,386	0.74
Participant Cost Test (PCT)		\$3,224,115	\$10,817,592	\$7,593,477	3.36
Lifecycle Revenue Impacts (\$/kWh)					\$0.000062866
Discounted Participant Payback (years)					1.62

### **Home Energy Reporting**

Navigant estimated the cost-effectiveness results for the Washington Home Energy Reporting Program, based on 2014 costs and savings estimates provided by PacifiCorp. This memo provides the cost-effectiveness results for the overall program and for Legacy and Expansion options.

Cost-effectiveness was tested using the 2013 IRP West Residential Whole House 49% load factor decrement. The program passes the cost-effectiveness for all the tests except the RIM test. The memo consists of the following tables.

Table 30 - Home Energy Reporting Inputs

Table 31 - Home Energy Reporting Annual Program Costs

Table 32 - Home Energy Reporting Savings by Measure Category

Table 33 - Benefit/Cost Ratios by Measure Category

Table 34 - Home Energy Reporting Level Cost-Effectiveness Results

Table 35 - Home Energy Reporting Legacy Cost-Effectiveness Results

Table 36 - Home Energy Reporting Expansion Cost-Effectiveness Results

Table 30 – Home Energy Reporting Inputs

Parameter	Value
Discount Rate	6.88%
Residential Line Loss	9.67%
Residential Energy Rate (\$/kWh)(base year	2014) \$0.0841
Inflation Rate <sup>1</sup>	1.90%

<sup>&</sup>lt;sup>1</sup> Future rates determined using a 1.9% annual escalator.

Table 31 – Home Energy Reporting Annual Program Costs

Measure Group	Engineering Costs	Utility Admin	Program Delivery	Program Dev.	Incentives	Total Utility Costs	Gross Customer Costs
HER Legacy	\$0	\$15,409	\$5,629	\$117,000	\$0	\$138,039	\$0
HER Expansion	\$0	\$32,644	\$23,178	\$80,388	\$0	\$136,210	\$0
Total	\$0	\$48,053	\$28,807	\$197,388	\$0	\$274,248	\$0

Table 32 – Home Energy Reporting Savings by Measure Category

Measure Group	Gross kWh Savings	Realization Rate	Adjusted Gross kWh Savings	Net to Gross Ratio	Net kWh Savings	Measure Life
HER Legacy	4,324,956	100%	4,324,956	100%	4,324,956	1
HER Expansion	345,215	100%	345,215	100%	345,215	1
Total	4,670,171	100%	4,670,171	100%	4,670,171	1

Table 33 - Benefit/Cost Ratios by Measure Category

Measure Group	PTRC	TRC	UCT	RIM	PCT
HER Legacy	2.26	2.06	2.06	0.56	n/a
HER Expansion	0.18	0.17	0.17	0.14	n/a
Total	1.23	1.12	1.12	0.45	n/a

Table 34 - Home Energy Reporting Level Cost-Effectiveness Results

Table 34 – Home Energy Reporting Level Cost-Effectiveness Results							
Cost-Effectiveness Test	Levelized \$/kWh	Costs	Benefits	Net Benefits	Benefit/Cost Ratio		
Total Resource Cost Test (PTRC) + Conversation Adder	\$0.0616	\$274,248	\$337,413	\$63,165	1.23		
Total Resource Cost Test (TRC) No Adder	\$0.0616	\$274,248	\$306,739	\$32,491	1.12		
Utility Cost Test (UCT)	\$0.0616	\$274,248	\$306,739	\$32,491	1.12		
Rate Impact Test (RIM)		\$674,472	\$306,739	-\$367,733	0.45		
Participant Cost Test (PCT)		\$0	\$400,224	\$400,224	n/a		
Lifecycle Revenue Impacts (\$/kWh)					\$0.000091621		
Discounted Participant Payback (years)					n/a		

Table 35 and Table 36 provide cost-effectiveness results for the Legacy and Expansion options.

Table 35 – Home Energy Reporting Legacy Cost-Effectiveness Results (2013 IRP West Residential Whole House 49%)

Cost-Effectiveness Test	Levelized \$/kWh	Costs	Benefits	Net Benefits	Benefit/Cost Ratio
Total Resource Cost Test (PTRC) + Conversation Adder	\$0.0335	\$138,039	\$312,472	\$174,433	2.26
Total Resource Cost Test (TRC) No Adder	\$0.0335	\$138,039	\$284,065	\$146,027	2.06
Utility Cost Test (UCT)	\$0.0335	\$138,039	\$284,065	\$146,027	2.06
Rate Impact Test (RIM)		\$508,678	\$284,065	-\$224,613	0.56
Participant Cost Test (PCT)		\$0	\$370,640	\$370,640	n/a
Lifecycle Revenue Impacts (\$/kWh)					\$0.000055962
Discounted Participant Payback (years)					n/a

Table 36 – Home Energy Reporting Expansion Cost-Effectiveness Results (2013 IRP West Residential Whole House 49%)

Cost-Effectiveness Test	Levelized \$/kWh	Costs	Benefits	Net Benefits	Benefit/Cost Ratio
Total Resource Cost Test (PTRC) + Conversation Adder	\$0.4142	\$136,210	\$24,941	-\$111,268	0.18
Total Resource Cost Test (TRC) No Adder	\$0.4142	\$136,210	\$22,674	-\$113,536	0.17
Utility Cost Test (UCT)	\$0.4142	\$136,210	\$22,674	-\$113,536	0.17
Rate Impact Test (RIM)		\$165,794	\$22,674	-\$143,120	0.14
Participant Cost Test (PCT)		\$0	\$29,584	\$29,584	n/a
Lifecycle Revenue Impacts (\$/kWh)					\$0.000035658
Discounted Participant Payback (years)					n/a

### See ya later, refrigerator®

Navigant estimated the cost-effectiveness results for the Washington See ya later, refrigerator® (SYLR) Program, based on 2014 costs and savings estimates provided by PacifiCorp. This memo provides the cost-effectiveness results for the overall program and for the 3 measure categories.

Cost-effectiveness was tested using the 2013 IRP West Residential Whole House 49% and West Residential Lighting 48% load factor decrements. The program passes the cost-effectiveness for all the tests except the RIM and PCT tests. The memo consists of the following tables.

Table 37 - SYLR Inputs

Table 38 - SYLR Annual Program Costs

Table 39 - SYLR Savings by Measure Category

Table 40 - Benefit/Cost Ratios by Measure Category

Table 41 - SYLR Level Cost-Effectiveness Results

Table 42 - SYLR Refrigerators Cost-Effectiveness Results

Table 43 - SYLR Freezers Cost-Effectiveness Results

Table 44 - SYLR Kits Cost-Effectiveness Results

Table 37 – SYLR Inputs

Parameter	Value
Discount Rate	6.88%
Residential Line Loss	9.67%
Residential Energy Rate (\$/kWh)(base year 2014)	\$0.0841
Inflation Rate <sup>1</sup>	1.90%

<sup>&</sup>lt;sup>1</sup> Future rates determined using a 1.9% annual escalator.

Table 38 – SYLR Annual Program Costs

Measure Group	Engineering Costs	Utility Admin	Admin	Program Dev.	Incentives	Total Utility Costs	Gross Customer Costs
Refrigerators	\$0	\$24,106	\$80,301	\$0	\$26,790	\$131,197	\$0
Freezers	\$0	\$5,390	\$17,955	\$0	\$7,080	\$30,425	\$0
Kits	\$0	\$1,322	\$4,404	\$0	\$6,035	\$11,761	\$0
Total	\$0	\$30,818	\$102,660	\$0	\$39,905	\$173,384	\$0

Table 39 – SYLR Savings by Measure Category

Measure Group	Gross kWh Savings	Realization Rate	Adjusted Gross kWh Savings	Net to Gross Ratio	Net kWh Savings	Measure Life
Refrigerators	522,452	100%	522,452	100%	522,452	7
Freezers	116,820	100%	116,820	100%	116,820	5
Kits	28,654	100%	28,654	100%	28,654	6
Total	667,926	100%	667,926	100%	667,926	7

Table 40 - Benefit/Cost Ratios by Measure Category

Measure Group	PTRC	TRC	UCT	RIM	PCT
Refrigerators	1.81	1.64	1.64	0.53	n/a
Freezers	1.29	1.18	1.18	0.47	n/a
Kits	1.01	0.92	0.92	0.43	n/a
Total	1.66	1.51	1.51	0.52	n/a

Table 41 – SYLR Level Cost-Effectiveness Results

Table 41 -	STER ECVEL	cost Effective	eness ivesuits		-
Cost-Effectiveness Test	Levelized \$/kWh	Costs	Benefits	Net Benefits	Benefit/Cost Ratio
Total Resource Cost Test (PTRC) + Conversation Adder	\$0.0472	\$173,384	\$288,574	\$115,190	1.66
Total Resource Cost Test (TRC) No Adder	\$0.0472	\$173,384	\$262,340	\$88,956	1.51
Utility Cost Test (UCT)	\$0.0472	\$173,384	\$262,340	\$88,956	1.51
Rate Impact Test (RIM)		\$504,941	\$262,340	-\$242,602	0.52
Participant Cost Test (PCT)		\$0	\$371,462	\$371,462	n/a
Lifecycle Revenue Impacts (\$/kWh)					\$0.000008822
Discounted Participant Payback (years)					n/a

Table 42 through Table 44 provides cost-effectiveness results for all 3 measures.

Table 42 – SYLR Refrigerators Cost-Effectiveness Results (2013 IRP West Residential Whole House 49%)

Cost-Effectiveness Test	Levelized \$/kWh	Costs	Benefits	Net Benefits	Benefit/Cost Ratio
Total Resource Cost Test (PTRC) + Conversation Adder	\$0.0434	\$131,197	\$237,323	\$106,126	1.81
Total Resource Cost Test (TRC) No Adder	\$0.0434	\$131,197	\$215,749	\$84,552	1.64
Utility Cost Test (UCT)	\$0.0434	\$131,197	\$215,749	\$84,552	1.64
Rate Impact Test (RIM)		\$404,032	\$215,749	-\$188,284	0.53
Participant Cost Test (PCT)		\$0	\$299,625	\$299,625	n/a
Lifecycle Revenue Impacts (\$/kWh)					\$0.000006847
Discounted Participant Payback (years)					n/a

### Table 43 – SYLR Freezers Cost-Effectiveness Results (2013 IRP West Residential Whole House 49%)

Cost-Effectiveness Test	Levelized \$/kWh	Costs	Benefits	Net Benefits	Benefit/Cost Ratio
Total Resource Cost Test (PTRC) + Conversation Adder	\$0.0601	\$30,425	\$39,365	\$8,939	1.29
Total Resource Cost Test (TRC) No Adder	\$0.0601	\$30,425	\$35,786	\$5,361	1.18
Utility Cost Test (UCT)	\$0.0601	\$30,425	\$35,786	\$5,361	1.18
Rate Impact Test (RIM)		\$76,028	\$35,786	-\$40,242	0.47
Participant Cost Test (PCT)		\$0	\$52,682	\$52,682	n/a
Lifecycle Revenue Impacts (\$/kWh)					\$0.000002067
Discounted Participant Payback (years)					n/a

### Table 44 - SYLR Kits Cost-Effectiveness Results (2013 IRP West Residential Lighting 48%)

Cost-Effectiveness Test	Levelized \$/kWh	Costs	Benefits	Net Benefits	Benefit/Cost Ratio
Total Resource Cost Test (PTRC) + Conversation Adder	\$0.0808	\$11,761	\$11,885	\$124	1.01
Total Resource Cost Test (TRC) No Adder	\$0.0808	\$11,761	\$10,805	-\$956	0.92
Utility Cost Test (UCT)	\$0.0808	\$11,761	\$10,805	-\$956	0.92
Rate Impact Test (RIM)		\$24,881	\$10,805	-\$14,076	0.43
Participant Cost Test (PCT)		\$0	\$19,155	\$19,155	n/a
Lifecycle Revenue Impacts (\$/kWh)					\$0.000000600
Discounted Participant Payback (years)					n/a

#### **Low-Income Weatherization**

Navigant estimated the cost-effectiveness results for the Washington Low Income Weatherization Program, based on 2014 costs and savings estimates provided by PacifiCorp. This memo provides the cost-effectiveness results for the overall program.

Cost-effectiveness was tested using the 2013 IRP West Residential Whole House 49% load factor decrement. The program passes the cost-effectiveness for the PTRC and TRC tests but does not pass the UCT, RIM and PCT tests. The memo consists of the following tables.

Table 45 - Low Income Weatherization Inputs

Table 46 - Low Income Weatherization Annual Program Costs

Table 47 - Low Income Weatherization Savings by Measure Category

Table 48 - Low Income Weatherization Level Cost-Effectiveness Results

Table 49 - Low Income Weatherization Non-Energy Benefits

Table 50 - Low Income Weatherization Level Cost-Effectiveness Results with NEBs

Table 45 – Low Income Weatherization Inputs

Parameter	Value
Discount Rate	6.88%
Residential Line Loss	9.67%
Residential Energy Rate (\$/kWh)(base year 2014)	\$0.0841
Inflation Rate <sup>1</sup>	1.90%

<sup>&</sup>lt;sup>1</sup> Future rates determined using a 1.9% annual escalator.

Table 46 – Low Income Weatherization Annual Program Costs

Measure Group	Engineering Costs	Utility Admin	Program Delivery	Program Admin	Incentives	Total Utility Costs	Gross Customer Costs
Low Income	\$0	\$0	\$27,992	\$84,318	\$586,654	\$698,964	\$0

Table 47 – Low Income Weatherization Savings by Measure Category

Measure Group	Gross kWh	Realization	Adjusted	Net to Gross	Net kWh	Measure
	Savings	Rate	Gross kWh Savings	Ratio	Savings	Life
Low Income	156,456	100%	156,456	100%	156,456	37

Table 48 – Low Income Weatherization Level Cost-Effectiveness Results

Cost-Effectiveness Test	Levelized \$/kWh	Costs	Benefits	Net Benefits	Benefit/Cost Ratio
Total Resource Cost Test (PTRC) + Conversation Adder	\$0.2667	\$698,964	\$182,674	-\$516,290	0.26
Total Resource Cost Test (TRC) No Adder	\$0.2667	\$698,964	\$166,067	-\$532,896	0.24
Utility Cost Test (UCT)	\$0.2667	\$698,964	\$166,067	-\$532,896	0.24
Rate Impact Test (RIM)		\$937,427	\$166,067	-\$771,360	0.18
Participant Cost Test (PCT)		\$0	\$825,117	\$825,117	n/a
Lifecycle Revenue Impacts (\$/kWh)					\$0.000005194
Discounted Participant Payback (years)					n/a

Table 49 summarizes the non-energy benefits for the Low Income Weatherization program.

Table 49 – Low Income Weatherization Non-Energy Benefits

		ton Energy Denemies
Non-Energy Benefit	Program Impact	Perspective Adjusted
Arrearage Reduction	\$3,177	TRC, PTRC, UCT, RIM
Capital Cost Savings	\$228	TRC, PTRC, UCT, RIM
Economic Impact	\$505,417	TRC, PTRC
Home Repair Costs	\$48,080	TRC, PTRC, PCT
Total	\$556,901	-

Table 50 details the increase in cost-effectiveness when the non-energy benefits are included in the analysis.

Table 50 – Low Income Weatherization Level Cost-Effectiveness Results with Non-Energy Benefits

Cost-Effectiveness Test	Levelized \$/kWh	Costs	Benefits	Net Benefits	Benefit/Cost Ratio
Total Resource Cost Test (PTRC) + Conversation Adder	\$0.2667	\$698,964	\$739,575	\$40,611	1.06
Total Resource Cost Test (TRC) No Adder	\$0.2667	\$698,964	\$722,968	\$24,004	1.03
Utility Cost Test (UCT)	\$0.2667	\$698,964	\$169,472	-\$529,492	0.24
Rate Impact Test (RIM)		\$937,427	\$169,472	-\$767,956	0.18
Participant Cost Test (PCT)		\$0	\$873,197	\$873,197	n/a
Lifecycle Revenue Impacts (\$/kWh)					\$0.000005171
Discounted Participant Payback (years)					n/a

### wattsmart® Business

Navigant estimated the cost-effectiveness results for the Washington *watt*smart® Business Program, based on 2014 costs and savings estimates provided by PacifiCorp. This memo provides the cost-effectiveness results for the overall program and for the 13 measure categories.

Cost-effectiveness was tested using the 2013 IRP west system 71% load factor decrement. The program passes the cost-effectiveness for all the tests except the RIM test. The memo consists of the following tables.

- Table 51 Utility Inputs
- Table 52 Annual Commercial and Industrial Program Costs by Measure Type
- Table 53 Annual Commercial and Industrial Savings by Measure Type
- Table 54 Benefit/Cost Ratios by Measure Category
- Table 55 wattsmart® Business Program Level Cost-Effectiveness Results
- Table 56- wattsmart® Business Additional Measures Cost-Effectiveness Results
- Table 57 wattsmart® Business Building Shell Cost-Effectiveness Results
- Table 58 wattsmart® Business Compressed Air Cost-Effectiveness Results
- Table 59 wattsmart® Business Dairy Farm Equipment Cost-Effectiveness Results
- Table 60 wattsmart® Business Energy Management Cost-Effectiveness Results
- Table 61 wattsmart® Business Fast Acting Doors Cost-Effectiveness Results
- Table 62 wattsmart® Business Food Services Cost-Effectiveness Results
- Table 63 wattsmart® Business HVAC Cost-Effectiveness Results
- Table 64 wattsmart® Business Irrigation Cost-Effectiveness Results
- Table 65 wattsmart® Business Lighting Cost-Effectiveness Results
- Table 66 wattsmart® Business Motors Cost-Effectiveness Results
- Table 67 wattsmart® Business Office Equipment Cost-Effectiveness Results
- Table 68 wattsmart® Business Refrigeration Cost-Effectiveness Results

**Table 51 - Utility Inputs** 

Parameter	Value
Discount Rate	6.88%
Residential Line Loss	9.67%
Commercial Line Loss	9.53%
Industrial Line Loss	8.16%
Irrigation Line Loss	9.67%
Residential Energy Rate (\$/kWh)(base year 2014)	\$0.0841
Commercial Energy Rate (\$/kWh)(base year 2014)	\$0.0778
Industrial Energy Rate (\$/kWh)(base year 2014)	\$0.0655
Irrigation Energy Rate (\$/kWh)(base year 2014)	\$0.0815
Inflation Rate <sup>1</sup>	1.90%

<sup>&</sup>lt;sup>1</sup> Future rates determined using a 1.9% annual escalator.

Table 52 - Annual Commercial and Industrial Program Costs by Measure Category

Measure Group	Engineering Costs	Utility Admin	Program Admin	Program Dev.	Incentives	Total Utility Costs	Gross Customer Costs
Additional Measures	\$47,430	\$21,015	\$67,984	\$7,842	\$229,032	\$373,303	\$559,424
Building Shell	\$5,912	\$2,619	\$8,474	\$977	\$52,079	\$70,062	\$447,140
Compressed Air	\$31,897	\$14,133	\$45,720	\$5,274	\$152,664	\$249,688	\$385,710
Dairy Farm Equipment	\$2,167	\$960	\$3,106	\$358	\$16,450	\$23,041	\$151,284
Energy Management	\$16,490	\$7,306	\$23,636	\$2,726	\$10,791	\$60,950	\$24,037
Fast Acting Doors	\$6,356	\$2,816	\$9,110	\$1,051	\$31,730	\$51,062	\$181,935
Food Services	\$887	\$393	\$1,272	\$147	\$3,600	\$6,299	\$13,103
HVAC	\$58,206	\$25,789	\$83,430	\$9,623	\$355,814	\$532,863	\$943,570
Irrigation	\$25,530	\$11,311	\$36,593	\$4,221	\$97,470	\$175,124	\$377,495
Lighting	\$304,127	\$134,749	\$435,923	\$50,282	\$1,309,730	\$2,234,811	\$3,340,448
Motors	\$15,049	\$6,668	\$21,571	\$2,488	\$64,587	\$110,363	\$154,467
Office Equipment	\$3,443	\$1,525	\$4,935	\$569	\$4,767	\$15,239	\$8,172
Refrigeration	\$263,828	\$116,894	\$378,159	\$43,619	\$1,086,006	\$1,888,506	\$2,060,067
Total	\$781,323	\$346,179	\$1,119,913	\$129,177	\$3,414,719	\$5,791,310	\$8,646,853

Table 53 - Annual Commercial and Industrial Savings by Measure Category

Measure Group	Gross kWh Savings	Realization Rate	Adjusted Gross kWh Savings	Net to Gross Ratio	Net kWh Savings	Measure Life
Additional Measures	1,519,883	97%	1,474,287	100%	1,474,287	14
Building Shell	189,444	97%	183,761	100%	183,761	20
Compressed Air	1,022,146	97%	991,482	100%	991,482	15
Dairy Farm Equipment	69,440	97%	67,357	100%	67,357	14
Energy Management	539,546	95%	512,569	100%	512,569	3
Fast Acting Doors	210,162	94%	197,552	100%	197,552	15
Food Services	28,436	97%	27,583	100%	27,583	12
HVAC	2,512,837	72%	1,809,243	100%	1,809,243	15
Irrigation	818,086	97%	793,543	100%	793,543	12
Lighting	9,745,683	97%	9,453,313	100%	9,453,313	14
Motors	482,249	97%	467,782	100%	467,782	15
Office Equipment	110,322	97%	107,012	100%	107,012	5
Refrigeration	8,724,120	94%	8,200,673	100%	8,200,673	14
Total	25,972,354	94%	24,286,155	100%	24,286,155	14

Table 54 - Benefit/Cost Ratios by Measure Category

Measure Group	PTRC	TRC	UCT	RIM	PCT
Additional Measures	1.60	1.45	2.73	0.70	2.34
Building Shell	0.42	0.38	2.52	0.67	0.55
Compressed Air	1.65	1.50	2.89	0.70	2.42
Dairy Farm Equipment	0.33	0.30	2.04	0.60	0.48
Energy Management	1.31	1.19	1.45	0.56	4.52
Fast Acting Doors	0.79	0.72	2.83	0.68	1.07
Food Services	1.17	1.07	2.68	0.63	1.84
HVAC	1.38	1.25	2.63	0.71	1.90
Irrigation	1.33	1.21	3.13	0.70	1.87
Lighting	1.73	1.57	3.00	0.69	2.62
Motors	1.87	1.70	3.08	0.73	2.72
Office Equipment	1.77	1.61	1.97	0.56	5.31
Refrigeration	2.22	2.02	3.06	0.75	3.33
Total	1.70	1.54	2.94	0.71	2.48

Table 55 - wattsmart® Business Program Level Cost-Effectiveness Results

Cost-Effectiveness Test	Levelized \$/kWh	Costs	Benefits	Net Benefits	Benefit/Cost Ratio
Total Resource Cost Test (PTRC) + Conversation Adder	\$0.0464	\$11,023,444	\$18,712,128	\$7,688,684	1.70
Total Resource Cost Test (TRC) No Adder	\$0.0464	\$11,023,444	\$17,011,025	\$5,987,581	1.54
Utility Cost Test (UCT)	\$0.0244	\$5,791,310	\$17,011,025	\$11,219,715	2.94
Rate Impact Test (RIM)		\$23,828,030	\$17,011,025	-\$6,817,005	0.71
Participant Cost Test (PCT)		\$8,646,853	\$21,451,439	\$12,804,586	2.48
Lifecycle Revenue Impacts (\$/kWh)					\$0.000122651

Table 56 through Table 68 provides cost-effectiveness results for all 13 measures.

Table 56 - wattsmart® Business Additional Measures Cost-Effectiveness Results

Cost-Effectiveness Test	Levelized \$/kWh	Costs	Benefits	Net Benefits	Benefit/Cost Ratio
Total Resource Cost Test (PTRC) + Conversation Adder	\$0.0482	\$703,695	\$1,122,513	\$418,818	1.60
Total Resource Cost Test (TRC) No Adder	\$0.0482	\$703,695	\$1,020,467	\$316,772	1.45
Utility Cost Test (UCT)	\$0.0256	\$373,303	\$1,020,467	\$647,164	2.73
Rate Impact Test (RIM)		\$1,453,655	\$1,020,467	-\$433,189	0.70
Participant Cost Test (PCT)		\$559,424	\$1,309,385	\$749,961	2.34
Lifecycle Revenue Impacts (\$/kWh)					\$0.000007794
Discounted Participant Payback (years)					3.39

Table 57 - wattsmart® Business Building Shell Cost-Effectiveness Results

Cost-Effectiveness Test	Levelized \$/kWh	Costs	Benefits	Net Benefits	Benefit/Cost Ratio
Total Resource Cost Test (PTRC) + Conversation Adder	\$0.2028	\$465,123	\$194,044	-\$271,078	0.42
Total Resource Cost Test (TRC) No Adder	\$0.2028	\$465,123	\$176,404	-\$288,719	0.38
Utility Cost Test (UCT)	\$0.0305	\$70,062	\$176,404	\$106,342	2.52
Rate Impact Test (RIM)		\$262,294	\$176,404	-\$85,890	0.67
Participant Cost Test (PCT)		\$447,140	\$244,311	-\$202,829	0.55
Lifecycle Revenue Impacts (\$/kWh)					\$0.00001077
Discounted Participant Payback (years)					n/a

Table 58 - wattsmart® Business Compressed Air Cost-Effectiveness Results

Cost-Effectiveness Test	Levelized \$/kWh	Costs	Benefits	Net Benefits	Benefit/Cost Ratio
Total Resource Cost Test (PTRC) + Conversation Adder	\$0.0469	\$482,735	\$794,888	\$312,153	1.65
Total Resource Cost Test (TRC) No Adder	\$0.0469	\$482,735	\$722,625	\$239,891	1.50
Utility Cost Test (UCT)	\$0.0242	\$249,688	\$722,625	\$472,937	2.89
Rate Impact Test (RIM)		\$1,032,238	\$722,625	-\$309,613	0.70
Participant Cost Test (PCT)		\$385,710	\$935,214	\$549,504	2.42
Lifecycle Revenue Impacts (\$/kWh)					\$0.000005194
Discounted Participant Payback (years)					3.47

Table 59 - wattsmart® Business Dairy Farm Equipment Cost-Effectiveness Results

Cost-Effectiveness Test	Levelized \$/kWh	Costs	Benefits	Net Benefits	Benefit/Cost Ratio
Total Resource Cost Test (PTRC) + Conversation Adder	\$0.2365	\$157,875	\$51,760	-\$106,115	0.33
Total Resource Cost Test (TRC) No Adder	\$0.2365	\$157,875	\$47,055	-\$110,821	0.30
Utility Cost Test (UCT)	\$0.0345	\$23,041	\$47,055	\$24,013	2.04
Rate Impact Test (RIM)		\$78,879	\$47,055	-\$31,824	0.60
Participant Cost Test (PCT)		\$151,284	\$72,287	-\$78,996	0.48
Lifecycle Revenue Impacts (\$/kWh)					\$0.000000573
Discounted Participant Payback (years)					n/a

Table 60 - wattsmart® Business Energy Management Cost-Effectiveness Results

Cost-Effectiveness Test	Levelized \$/kWh	Costs	Benefits	Net Benefits	Benefit/Cost Ratio
Total Resource Cost Test (PTRC) + Conversation Adder	\$0.0531	\$74,196	\$97,221	\$23,025	1.31
Total Resource Cost Test (TRC) No Adder	\$0.0531	\$74,196	\$88,383	\$14,187	1.19
Utility Cost Test (UCT)	\$0.0437	\$60,950	\$88,383	\$27,433	1.45
Rate Impact Test (RIM)		\$158,874	\$88,383	-\$70,491	0.56
Participant Cost Test (PCT)		\$24,037	\$108,715	\$84,678	4.52
Lifecycle Revenue Impacts (\$/kWh)					\$0.000006161
Discounted Participant Payback (years)					0.39

Table 61 - wattsmart® Business Fast Acting Doors Cost-Effectiveness Results

Cost-Effectiveness Test	Levelized \$/kWh	Costs	Benefits	Net Benefits	Benefit/Cost Ratio
Total Resource Cost Test (PTRC) + Conversation Adder	\$0.0980	\$201,267	\$158,878	-\$42,389	0.79
Total Resource Cost Test (TRC) No Adder	\$0.0980	\$201,267	\$144,435	-\$56,833	0.72
Utility Cost Test (UCT)	\$0.0249	\$51,062	\$144,435	\$93,373	2.83
Rate Impact Test (RIM)		\$213,749	\$144,435	-\$69,315	0.68
Participant Cost Test (PCT)		\$181,935	\$194,417	\$12,482	1.07
Lifecycle Revenue Impacts (\$/kWh)					\$0.000001163
Discounted Participant Payback (years)					13.40

Table 62 - wattsmart® Business Food Services Cost-Effectiveness Results

Cost-Effectiveness Test	Levelized \$/kWh	Costs	Benefits	Net Benefits	Benefit/Cost Ratio
Total Resource Cost Test (PTRC) + Conversation Adder	\$0.0646	\$15,802	\$18,554	\$2,752	1.17
Total Resource Cost Test (TRC) No Adder	\$0.0646	\$15,802	\$16,868	\$1,065	1.07
Utility Cost Test (UCT)	\$0.0257	\$6,299	\$16,868	\$10,568	2.68
Rate Impact Test (RIM)		\$26,756	\$16,868	-\$9,888	0.63
Participant Cost Test (PCT)		\$13,103	\$24,057	\$10,954	1.84
Lifecycle Revenue Impacts (\$/kWh)					\$0.00000208
Discounted Participant Payback (years)					n/a

Table 63 - wattsmart® Business HVAC Cost-Effectiveness Results

Cost-Effectiveness Test	Levelized \$/kWh	Costs	Benefits	Net Benefits	Benefit/Cost Ratio
Total Resource Cost Test (PTRC) + Conversation Adder	\$0.0596	\$1,120,619	\$1,541,491	\$420,873	1.38
Total Resource Cost Test (TRC) No Adder	\$0.0596	\$1,120,619	\$1,401,356	\$280,737	1.25
Utility Cost Test (UCT)	\$0.0283	\$532,863	\$1,401,356	\$868,493	2.63
Rate Impact Test (RIM)		\$1,965,455	\$1,401,356	-\$564,099	0.71
Participant Cost Test (PCT)		\$943,570	\$1,788,406	\$844,836	1.90
Lifecycle Revenue Impacts (\$/kWh)					\$0.000009463
Discounted Participant Payback (years)					4.95

Table 64 - wattsmart® Business Irrigation Cost-Effectiveness Results

Cost-Effectiveness Test	Levelized \$/kWh	Costs	Benefits	Net Benefits	Benefit/Cost Ratio
Total Resource Cost Test (PTRC) + Conversation Adder	\$0.0646	\$455,150	\$603,908	\$148,759	1.33
Total Resource Cost Test (TRC) No Adder	\$0.0646	\$455,150	\$549,008	\$93,858	1.21
Utility Cost Test (UCT)	\$0.0249	\$175,124	\$549,008	\$373,883	3.13
Rate Impact Test (RIM)		\$783,625	\$549,008	-\$234,617	0.70
Participant Cost Test (PCT)		\$377,495	\$705,970	\$328,475	1.87
Lifecycle Revenue Impacts (\$/kWh)					\$0.000004934
Discounted Participant Payback (years)					4.71

Table 65 - wattsmart® Business Lighting Cost-Effectiveness Results

Cost-Effectiveness Test	Levelized \$/kWh	Costs	Benefits	Net Benefits	Benefit/Cost Ratio
Total Resource Cost Test (PTRC) + Conversation Adder	\$0.0455	\$4,265,529	\$7,368,404	\$3,102,875	1.73
Total Resource Cost Test (TRC) No Adder	\$0.0455	\$4,265,529	\$6,698,549	\$2,433,020	1.57
Utility Cost Test (UCT)	\$0.0239	\$2,234,811	\$6,698,549	\$4,463,738	3.00
Rate Impact Test (RIM)		\$9,676,684	\$6,698,549	-\$2,978,135	0.69
Participant Cost Test (PCT)		\$3,340,448	\$8,751,603	\$5,411,155	2.62
Lifecycle Revenue Impacts (\$/kWh)					\$0.000053583
Discounted Participant Payback (years)					2.99

Table 66 - wattsmart® Business Motors Cost-Effectiveness Results

Cost-Effectiveness Test	Levelized \$/kWh	Costs	Benefits	Net Benefits	Benefit/Cost Ratio
Total Resource Cost Test (PTRC) + Conversation Adder	\$0.0412	\$200,243	\$373,969	\$173,726	1.87
Total Resource Cost Test (TRC) No Adder	\$0.0412	\$200,243	\$339,972	\$139,729	1.70
Utility Cost Test (UCT)	\$0.0227	\$110,363	\$339,972	\$229,609	3.08
Rate Impact Test (RIM)		\$465,155	\$339,972	-\$125,183	0.73
Participant Cost Test (PCT)		\$154,467	\$419,379	\$264,912	2.72
Lifecycle Revenue Impacts (\$/kWh)					\$0.000002100
Discounted Participant Payback (years)					2.91

Table 67 - wattsmart® Business Office Equipment Cost-Effectiveness Results

Cost-Effectiveness Test	Levelized \$/kWh	Costs	Benefits	Net Benefits	Benefit/Cost Ratio
Total Resource Cost Test (PTRC) + Conversation Adder	\$0.0402	\$18,644	\$32,964	\$14,320	1.77
Total Resource Cost Test (TRC) No Adder	\$0.0402	\$18,644	\$29,967	\$11,323	1.61
Utility Cost Test (UCT)	\$0.0329	\$15,239	\$29,967	\$14,728	1.97
Rate Impact Test (RIM)		\$53,883	\$29,967	-\$23,916	0.56
Participant Cost Test (PCT)		\$8,172	\$43,411	\$35,239	5.31
Lifecycle Revenue Impacts (\$/kWh)					\$0.000001229
Discounted Participant Payback (years)					0.40

 ${\bf Table~68-} \textit{watt} \\ {\bf smart} \\ {\bf @~Business~Refrigeration~Cost-Effectiveness~Results}$ 

Cost-Effectiveness Test	Levelized \$/kWh	Costs	Benefits	Net Benefits	Benefit/Cost Ratio
Total Resource Cost Test (PTRC) + Conversation Adder	\$0.0352	\$2,862,567	\$6,353,533	\$3,490,966	2.22
Total Resource Cost Test (TRC) No Adder	\$0.0352	\$2,862,567	\$5,775,939	\$2,913,372	2.02
Utility Cost Test (UCT)	\$0.0232	\$1,888,506	\$5,775,939	\$3,887,433	3.06
Rate Impact Test (RIM)		\$7,656,784	\$5,775,939	-\$1,880,845	0.75
Participant Cost Test (PCT)		\$2,060,067	\$6,854,283	\$4,794,216	3.33
Lifecycle Revenue Impacts (\$/kWh)					\$0.000033840
Discounted Participant Payback (years)					1.80



### 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 and/or new homes measures. Inspections are performed on >=5 percent of single family homes, >=5 percent of manufactured homes, 100 percent of multifamily projects, and 100 percent of new homes projects.

- Air sealing
- Central air conditioning best practices installation and sizing
- Duct sealing
- Duct sealing and insulation
- Heat pump performance tested comfort systems, commissioning, controls, and sizing
- Heat pump water heaters
- Insulation
- Windows

No site inspections are conducted for the following measures. However, all post-purchase incented measures undergo a quality assurance review prior to the issuance of the customer/dealer incentive and recording of savings (e.g. 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.

- Central air conditioners
- Clothes washers
- Electric water heaters
- Evaporative coolers
- Freezers
- Light fixtures (post-purchase)
- Heat pumps
- Refrigerators

No site inspections are conducted for the following measures, which are delivered via an upstream, manufacturer buy-down model. Promotion agreement contracts are signed with manufacturers and retailers to set incentive levels, final product prices, and limits to the total number of units that can be purchased per customer. Program Administrator verifies measures for product eligibility and correct pricing. Pricing is also verified by Program Administrator field visits to retail locations.

- CFL bulbs
- LED bulbs
- Light fixtures (upstream)
- Room air conditioners

Customer eligibility for wattsmart Starter Kits is verified using the customer's account number and last name and cross-verifying with the current PacifiCorp customer database.

### **Refrigerator Recycling**

Company hires an independent inspector to phone survey >= 5 percent program participants and to site inspect >= 5 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.

#### wattsmart Business

### For projects delivered by third part program administrator

#### 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 (typical upgrades/listed measures, custom measures)

- 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 in-house project manager delivered projects

Lighting and non-lighting

- 100 percent pre/post-installation site inspections by third party consulting engineering firms, invoice reconciled to inspection results.
- No pre-inspection for new construction

#### 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 2014 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 2014 and the third party evaluator who completed the evaluation. Program evaluations are available for review at <a href="https://www.pacificorp.com/es/dsm/washington.html">www.pacificorp.com/es/dsm/washington.html</a>

Program	Years Evaluated	Evaluator				
Home Energy Savings	2011-2012	The Cadmus Group				
Home Energy Reports	8/1/2012 – 1/31/2014	Navigant Consulting				

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

The third party evaluator's recommendations and Company's responses are provided in Table 1 and 2:

Table 1 Home Energy Savings Evaluation Recommendations

<b>Evaluation Recommendations</b>	Pacific Power Action Plan
Standardize the measure naming conventions across years and states to improve the ability to replicate and compare program data.	Program continuously strives to harmonize data and naming conventions; process is ongoing.
To further enhance the program administrator's methodology for calculating and minimizing CFL leakage, review the confidence surrounding geocoded addresses to ensure that store locations are accurately mapped. Also, consider using Pacific Power's actual service area territory boundary to refine the model (as opposed to identifying the service area territory boundary by ZIP codes).	Refining the methodology is ongoing.

<b>Evaluation Recommendations</b>	Pacific Power Action Plan					
Review options for how best to understand and track the impact of EISA for 60- and 40- watt bulbs in 2014. Some states have allowed utilities to stagger changing the baseline for bulbs impacted by EISA. Specific knowledge of bulb stocking practices (or sales) in Pacific Power's service territory could help make a case to stagger the 2013 and 2014 baselines impacted by EISA.	Consistent with the Company's 2014-2015 Biennial Conservation Target, the program is claiming savings using RTF UES values, which account for the expected effects of EISA.					
In order to reduce the number of rejected applications, incorporate as many of the best practices stated in Appendix I into the HES incentive forms as deemed cost-effective. Cadmus suggests prioritizing the following:	All incentive applications were updated as part of the January 1, 2014 program changes; online incentive applications are in place for high volume applications for light fixtures and appliances.					
<ul> <li>Keep the incentive form length to a minimum.</li> </ul>						
<ul> <li>Encourage trade allies to fill out the paperwork through training or bonuses to decrease the number of rejected applications.</li> </ul>						
Utilize a paperless application process for all incentive applications.						

Table 2 Home Energy Reports Evaluation Recommendations

<b>Evaluation Recommendations</b>	Pacific Power Action Plan
Expand the program, especially to high usage customers. If the program is expanded, Navigant (or another third party) should receive the billing data for the new treatment and control households for the year before these households are added to the program, <i>before</i> the home energy reports are initially sent to the new treatment households. Navigant (or another third party) can verify that the allocation of households across the two groups is consistent with a randomized controlled trial.	Company action plan – The Company expanded the program adding 38,500 customers to the initial 2012 launch of 13,500 customers. In compliance with the evaluation recommendation and Commission requirements, a third party vendor performed the randomized control selection process for this expansion.
Consider evaluation of program demand savings. It is possible that customer energy savings are greater than average during peak demand hours. If the interval data necessary to estimate these savings is available, a fairly simple statistical analysis that takes advantage of the experimental design of the program could be used to estimate peak demand savings.	The Company currently does not have interval data for the residential customer group to track the demand savings however will consider collecting general data from customers during evaluation related surveys capable of helping us understand the most typical actions taken and the associated demand impacts.



# Appendix 5 Home Energy Savings Retailers

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The Company worked with 20 retailers in 2014 in the promotion of efficient lighting technologies i.e. CFLs, LEDs and efficient lighting fixtures. Table 1 lists the upstream retailers helping promote these technologies in the program.

Table 1<sup>1</sup>

## **Retail Stores – Upstream**

Retailer	City	CFLs	LEDs	Fixtures
Ace Hardware	Yakima	<b>V</b>		
Ace Hardware	Naches	√		
Bed Bath & Beyond	Union Gap	√		
Big Lots	Yakima	√		
Corner Grocery & Hardware	Yakima	√		
Costco	Union Gap	√	√	V
Dollar Tree	Yakima	√		
Habitat for Humanity ReStore	Yakima	√		
Home Depot	Yakima	√	<b>√</b>	V
Hometown Ace Hardware	Yakima	√		
Lowe's	Yakima	√	<b>√</b>	V
Roy's Ace Hardware	Yakima	√		
True Value Hardware - C&H	Yakima	√	<b>√</b>	
True Value Hardware - Country Farm and Garden	Yakima	√	V	
True Value Hardware	Selah	√	<b>√</b>	
Walgreens	Yakima	√		
Walgreens	Yakima	√		
Walgreens	Yakima	√		

<sup>&</sup>lt;sup>1</sup> To be considered as a participating retailer for discounted lighting products, the retailer's sales coming from Pacific Power customers must be a significant majority of their total sales.

Retailer	City	CFLs	LEDs	Fixtures
Wal-Mart - Supercenter	Yakima	V	V	√ V
Wal-Mart	Yakima	V	$\sqrt{}$	V

Seventeen local and national retailers now consistently promote high efficiency appliances on behalf of the program. Table 2 lists the appliance retailers participating in the program.

Table 2

## **Retail Stores – Appliances**

Retailer	City	Clothes Washer	Dishwasher*	Electric Water Heater	Evaporative Cooler	Fixture	Freezer	Refrigerator	Room Air Conditioner	No Redemptions in 2014
All Your Building Needs	Pomeroy									$\sqrt{}$
Bemis Home Appliance & Tv Ctr	Yakima	1	√				1	<b>V</b>		
Best Buy	Yakima	$\sqrt{}$						<b>V</b>		
Ferguson Enterprises	Yakima									V
Ferguson Enterprises, Inc	Walla Walla									√
Home Depot	Yakima	1	√	<b>V</b>	√	1	1	V		
Home Depot	College Place	<b>√</b>	V	<b>V</b>		√	<b>√</b>	<b>V</b>		
Inland Lighting Centre	Yakima									V
Inland Pipe & Supply	Yakima									V
Lowe's	Yakima	V	√	√		√	1	√		
Sears	Union Gap	1	<b>V</b>	1			V	V		
Sears	Sunnyside	V					V	1		

Retailer	City	Clothes Washer	Dishwasher*	Electric Water Heater	Evaporative Cooler	Fixture	Freezer	Refrigerator	Room Air Conditioner	No Redemptions in 2014
Sears	Toppenish									V
Sears	Walla Walla	√	1				V	√		
Suffield Furniture Company	Dayton						<b>V</b>	1		
True Value Hardware	Selah									V
TV Towne	Yakima									V

<sup>\*</sup> Measure retired with tariff change effective 1/1/2014

Table 3 and Table 4 list the HVAC contractors and weatherization (window and insulation) contractors.

Table 3

## **HVAC Contractors**

			11	VAC	CUII	uacı	013						
Trade Ally Name	City	Central Air Conditioner (CAC) Equipment	CAC Best Practice Installation & Sizing	Duct Sealing	Duct Sealing & Insulation	Evaporative Cooler	Heat Pump - PTCS Commissioning, Controls, and Sizing	Heat Pump Best Practice Installation	HP Tune-up*	Heat Pump Conversion	Heat Pump Upgrade	Heat Pump, Ductless	No Redemptions in 2014
A & N Heating and Cooling LLC	Walla Walla											√	
Absolute Comfort Technology, LLC.	Selah											√	
Absolute Comfort, LLC.	Yakima												V
Access Electric & Heating Inc	Kennewick												V
AccuTemp Heating & Air Conditioning	Yakima											√	
Ackerman Heating & Air Conditioning	Colfax									1			
Air F/X LLC	Yakima												V
All Assured Heating, Cooling, Air Conditioning &	Kennewick												√

Trade Ally Name Electric	City	Central Air Conditioner (CAC) Equipment	CAC Best Practice Installation & Sizing	Duct Sealing	Duct Sealing & Insulation	Evaporative Cooler	Heat Pump - PTCS Commissioning, Controls, and Sizing	Heat Pump Best Practice Installation	HP Tune-up*	Heat Pump Conversion	Heat Pump Upgrade	Heat Pump, Ductless	No Redemptions in 2014
All Phase Refrigeration & Heating, Inc.	Kennewick												√
All Seasons Heating & Air Conditioning	Yakima									√	<b>V</b>		
Allard Enterprises	Yakima												√
A-One Refrigeration &Heating	Kennewick												<b>V</b>
Apollo Sheet Metal	Kennewick											√	
Aztec Heating & Air Conditioning	Grandview												<b>√</b>
Bid Mechanical Inc.	Kittitas												<b>√</b>
Blaze to Blizzard Heating &Cooling	Walla Walla												<b>√</b>
Bob Rhodes Heating and Air	Kennewick												V

Trade Ally Name Conditioning	City	Central Air Conditioner (CAC) Equipment	CAC Best Practice Installation & Sizing	Duct Sealing	Duct Sealing & Insulation	Evaporative Cooler	Heat Pump - PTCS Commissioning, Controls, and Sizing	Heat Pump Best Practice Installation	HP Tune-up*	Heat Pump Conversion	Heat Pump Upgrade	Heat Pump, Ductless	No Redemptions in 2014
Campbell & Company, Inc.	Pasco	√		√	√		√			√	√	√	
Central Mechanical Services	Yakima												1
Chapman Heating & Air Conditioning	Dayton									1		1	
CK Home Comfort Systems	Grandview				√							√	
Clark County Mechanical	Vancouver												√
College Place Heating & Air Conditioning	College Place	√	<b>V</b>	√	√		<b>V</b>	√		√	√	√	
CP Mechanical LLC	Lynnwood											√	
Darby Heating and Air	Richland												<b>√</b>
Dave's Heating and Air Conditioning Inc	Yakima												<b>√</b>

Trade Ally Name  Dayco Heating &	City	Central Air Conditioner (CAC) Equipment	CAC Best Practice Installation & Sizing	Duct Sealing	Duct Sealing & Insulation	Evaporative Cooler	Heat Pump - PTCS Commissioning, Controls, and Sizing	Heat Pump Best Practice Installation	HP Tune-up*	Heat Pump Conversion	Heat Pump Upgrade	Heat Pump, Ductless	No Redemptions in 2014
Air Conditioning	Kennewick				√							√	
Delta Heating and Cooling Inc	Richland						√			√			
Ductz of WA & ID/Ductz of Post Falls	Post Falls												√
Elite Energy Solutions- WA	Seatac												<b>V</b>
E-Star Northwest LLC	Sequim												<b>V</b>
Four Seasons Heating and AC	Yakima											√	
Grassi Refrigeration	Walla Walla												√
Intermountain West Insulation	Kennewick				√								
J &B Heating & AC	Yakima												<b>V</b>
Jacobs & Rhodes Heating & Air Conditioning	Kennewick												√

Trade Ally Name	City	Central Air Conditioner (CAC) Equipment	CAC Best Practice Installation & Sizing	Duct Sealing	Duct Sealing & Insulation	Evaporative Cooler	Heat Pump - PTCS Commissioning, Controls, and Sizing	Heat Pump Best Practice Installation	HP Tune-up*	Heat Pump Conversion	Heat Pump Upgrade	Heat Pump, Ductless	No Redemptions in 2014
Johnny's Heating and Cooling	Walla Walla												√
Miller & Trujillo Heating and AC LLC	Zillah									<b>V</b>		√	
Nico Enterprises, LLC	Walla Walla											<b>V</b>	
Olmstead Electric LLC	Walla Walla												<b>√</b>
One Hour Heating & AC	Yakima			√							√	√	
Platte Heating and Air Conditioning	Yakima												<b>√</b>
Polar Heating And Air Conditioning LLC	Selah												<b>√</b>
Quality Comfort Heating & A/C	Yakima									1			
Rainwater, Inc.	Grandview												V
Richart Family, Inc	Vancouver												<b>V</b>

Trade Ally Name	City	Central Air Conditioner (CAC) Equipment	CAC Best Practice Installation & Sizing	Duct Sealing	Duct Sealing & Insulation	Evaporative Cooler	Heat Pump - PTCS Commissioning, Controls, and Sizing	Heat Pump Best Practice Installation	HP Tune-up*	Heat Pump Conversion	Heat Pump Upgrade	Heat Pump, Ductless	No Redemptions in 2014
Roger L Gibson	Richland												1
Schaefer Refrigeration Inc	Walla Walla	<b>V</b>											
Smith Insulation, Inc.	Walla Walla			√	√								
ThermalWise Heating and Refrigeration LLC	Walla Walla												<b>V</b>
Thermex Valley Heating and AC	Yakima										√		
TJ's Refrigeration	Sunnyside												<b>V</b>
TNG Heating & Refrigeration	Toppenish											√	
Total Comfort Solutions, LLC	Walla Walla									√	<b>V</b>	<b>V</b>	
Total Energy Management	Richland												<b>V</b>
Total Quality Air	Pasco												V
Vance Heating & Air Conditioning,	Yakima	√								√		√	

Trade Ally Name Inc.	City	Central Air Conditioner (CAC) Equipment	CAC Best Practice Installation & Sizing	Duct Sealing	Duct Sealing & Insulation	Evaporative Cooler	Heat Pump - PTCS Commissioning, Controls, and	Heat Pump Best Practice Installation	HP Tune-up*	Heat Pump Conversion	Heat Pump Upgrade	Heat Pump, Ductless	No Redemptions in 2014
	Walla Walla										V	$\sqrt{}$	

<sup>\*</sup> Measure retired with tariff change effective 1/1/2014

Table 4

## **Weatherization Contractors**

Trade Ally Name	City	Air Sealing	Attic Insulation	Floor Insulation	Wall Insulation	Windows	No Redemptions in 2014
Allard Enterprises	Yakima						V
Benko Enterprises	Walla Walla						1
Bi-State Siding & Window- WA	Pasco						<b>V</b>
Central Valley Glass, Inc.	Yakima					<b>V</b>	
Chon Insulation & Drywall LLC	Walla Walla		V		V		
Dave's Heating and Air Conditioning Inc	Yakima						V
Don Jordan Energy Systems	Yakima		V		V		
Ductz of WA & ID/Ductz of Post Falls	Post Falls						V
Elite Energy Solutions- WA	Seatac						V
E-Star Northwest LLC	Sequim						1
Farwest Climate Control Inc.	Yakima						V
High Desert Glass, LLC	Prosser						1
Home Improvement Products, Inc.	Moxee					V	
Intermountain West Insulation	Kennewick		V	V	<b>V</b>		
Jackson Siding and Windows	Walla Walla					<b>√</b>	
McKinney Glass	Yakima					<b>V</b>	
Miller Glass Co.	Yakima						√
Perfection Glass, Inc.	Kennewick						V
Richart Family, Inc	Vancouver						<b>V</b>

Trade Ally Name	City	Air Sealing	Attic Insulation	Floor Insulation	Wall Insulation	Windows	No Redemptions in 2014
Smith Insulation, Inc.	Walla Walla	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$	1	
Vineyard Creek Construction	Walla Walla					<b>√</b>	
West Valley Glass and Window	Yakima					1	
Windows Walla Walla	Walla Walla					√	

## **Demographics**

Approximately 58 percent of all *Home Energy Savings* incentive applications in 2014 were received from customers located in Yakima and Walla Walla. Table 5 summarizes customer applications by community.

**Customer Applications by City** 

Table 5

Customer City	% of All Applications	% of Appliance & Fixture Applications	% of HVAC Applications	% of Manufactured Homes Applications	% of Weatherization Applications	% of Kits Applications
YAKIMA	41.95%	43.68%	41.52%	0.56%	46.50%	42.35%
WALLA WALLA	15.50%	24.63%	19.70%	56.18%	30.77%	13.89%
SELAH	7.48%	5.99%	7.27%	0.56%	5.24%	7.72%
SUNNYSIDE	5.22%	2.40%	4.24%	0.00%	1.40%	5.58%
COLLEGE PLACE	3.33%	3.86%	2.73%	41.57%	2.80%	2.78%

Customer City	% of All Applications	% of Appliance & Fixture Applications	% of HVAC Applications	% of Manufactured Homes Applications	% of Weatherization Applications	% of Kits Applications
TOPPENISH	3.29%	2.26%	1.52%	0.00%	0.35%	3.51%
GRANDVIEW	3.06%	1.20%	0.91%	0.00%	1.05%	3.32%
UNION GAP	2.53%	1.60%	1.52%	0.00%	1.40%	2.67%
ZILLAH	2.23%	2.40%	4.85%	0.00%	3.85%	2.14%
DAYTON	2.09%	1.73%	2.12%	0.56%	0.35%	2.17%
NACHES	1.90%	0.80%	3.33%	0.00%	1.40%	1.97%
MOXEE	1.81%	1.60%	1.52%	0.00%	0.35%	1.89%
WAPATO	1.78%	1.60%	1.21%	0.00%	1.05%	1.85%
GRANGER	1.58%	0.93%	0.30%	0.00%	0.70%	1.70%
TIETON	0.88%	0.93%	0.61%	0.00%	0.00%	0.92%
BURBANK	0.86%	0.53%	1.21%	0.56%	0.00%	0.91%
WAITSBURG	0.75%	0.67%	1.21%	0.00%	1.75%	0.73%
POMEROY	0.69%	0.13%	0.30%	0.00%	0.00%	0.76%
COWICHE	0.51%	0.80%	0.30%	0.00%	0.35%	0.51%
MABTON	0.45%	0.00%	0.61%	0.00%	0.00%	0.49%
OUTLOOK	0.43%	0.67%	0.91%	0.00%	0.00%	0.42%
TOUCHET	0.38%	0.40%	0.61%	0.00%	0.00%	0.39%
BUENA	0.25%	0.27%	0.61%	0.00%	0.00%	0.25%
WHITE SWAN	0.23%	0.00%	0.00%	0.00%	0.00%	0.26%
HARRAH	0.22%	0.27%	0.00%	0.00%	0.35%	0.22%
WALLULA	0.14%	0.13%	0.00%	0.00%	0.35%	0.15%
DIXIE	0.14%	0.00%	0.30%	0.00%	0.00%	0.15%
PRESCOTT	0.14%	0.40%	0.00%	0.00%	0.00%	0.13%
PARKER	0.09%	0.00%	0.00%	0.00%	0.00%	0.11%

Customer City	% of All Applications	% of Appliance & Fixture Applications	% of HVAC Applications	% of Manufactured Homes Applications	% of Weatherization Applications	% of Kits Applications
PROSSER	0.05%	0.00%	0.61%	0.00%	0.00%	0.04%
HUNTSVILLE	0.02%	0.13%	0.00%	0.00%	0.00%	0.02%
LOWDEN	0.01%	0.00%	0.00%	0.00%	0.00%	0.02%



# Appendix 6 Washington Energy Efficiency Alliance

Pacific Power



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 2009, 2010, 2011, 2012 and/or 2013.

#### Search Criteria:

Selected State(s): Washington
Specialties: Lighting
HVAC - units

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: 76 - Date and Time: 03/03/2015 06:08:28 PM

A & T Quality Electric LLC	Specialties HVAC - unitary	Business Type Contractor	Join Date 07/15/2009	Projects Completed
4271 N Wenas Rd Selah, WA - 98942 Phone: 509-985-9890	Lighting Motors and VFDs		0171072000	5
Absolute Software, Inc.	Specialties	Business Type	Join Date	Projects
430-11401 Century Oaks Terrace Austin, TX - 78758 Phone: 512-600-7455 Website: www.absolute.com	Other: Other Specialty	Manufacturer - Rep Other: Software Company	02/11/2014	Completed
All Seasons Heating & Air Conditioning*	<b>Specialties</b> HVAC - unitary	Business Type Contractor	Join Date 06/01/2004	Projects Completed
302 S. 3rd Ave. Yakima, WA - 98902 Phone: 509-248-6380 Website: www.allseasonsheating.com				3
All-Phase Electric, Inc.*	Specialties Lighting	Business Type Contractor	Join Date 06/08/2006	Projects Completed
2500 S 12th Ave Union Gap, WA - 98903 Phone: 509-454-5093 Website: allphaseelectric.org	Lighting	Contractor	00/00/2000	34
All-State Electric Co.*	Specialties Lighting	Business Type Contractor	Join Date 01/20/2009	Projects Completed
310 S. 1st Street Selah, WA - 98942 Phone: 509-941-8739 Website: telkonet.com	Motors and VFDs Other: Other Specialty		01/20/2009	35
Allard Enterprises	Specialties HVAC - unitary	Business Type Contractor	Join Date 04/01/2006	Projects
4506 Maple Ave. Yakima, WA - 98901 Phone: 509-575-0955	Motors and VFDs	Contractor	04/01/2006	Completed
Apollo Sheet Metal	Specialties HVAC - unitary	Business Type Distributor	Join Date 04/01/2006	Projects Completed
1207 W. Columbia Dr. Kennewick, WA - 99336 Phone: 509-586-1104 Website: apollosm.com	Motors and VFDs	Distributor	04/01/2000	Completed 14



Applied Industrial Technologies - Yakima	Specialties Motors and VFDs	Business Type Distributor	Join Date 10/01/2004	Projects Completed
909 N. Front St. Yakima, WA - 98901 Phone: 509-457-1600 Website: www.applied.com				
Batteries Plus Bulbs - Walla Walla	Specialties	Business Type	Join Date	Projects
632 S 9TH AVE Walla Walla, WA - 99362 Phone: 509-529-7001	Lighting Other: Other Specialty	Distributor	07/23/2014	Completed
C-Mation LLC	Specialties HVAC - unitary	Business Type Distributor	Join Date 04/01/2009	Projects Completed
3565 S West Temple Salt Lake City, UT - 84115 Phone: 801-268-1425 Website: cmation.com	Motors and VFDs	Distributor	04/01/2009	Completed
<b>Central Mechanical Services</b>	Specialties	Business Type	Join Date	Projects
2601 Business Lane Yakima, WA - 98901 Phone: 509-248-5944	HVAC - unitary	Contractor	08/01/2004	Completed
Champion Lighting, Inc.	Specialties Lighting	Business Type	Join Date 01/20/2007	Projects Completed
4523 S. Saint Andrews Ln Spokane, WA - 99223 Phone: 509-448-4477	Lighting	Other: Other	01/20/2007	10
College Place Heating and Air Conditioning	<b>Specialties</b> HVAC - unitary	Business Type Contractor	Join Date 03/01/2010	Projects Completed
970 NE Rose College Place, WA - 99324 Phone: 509-525-8073 Website: www.cpheat.com				
Columbia Electric Supply - Pasco	Specialties Controls	Business Type Distributor	Join Date 09/09/2014	Projects Completed
1913 Washington Street Pasco, WA - 99301 Phone: 509-547-9733 Website: www.columbiaelectricsupplypasco.com	Lighting Motors and VFDs	Dioxida	00,00,2011	Completed
Columbia Electric Supply -	Specialties	Business Type	Join Date	Projects
Sunnyside	Controls Lighting	Distributor	10/23/2014	Completed
2580 Yakima Valley Hwy Sunnyside, WA - 98944 Phone: 509-837-6033	Motors and VFDs			
Columbia Electric Supply - Walla Walla	Specialties HVAC - unitary Lighting	Business Type Distributor	Join Date 01/01/2008	Projects Completed
932 N 13TH AVE Walla Walla, WA - 99362 Phone: 509-522-1419	Motors and VFDs			2
Consolidated Electrical Distributors - Yakima	Specialties Lighting	Business Type Distributor	Join Date 01/01/2008	Projects Completed
131 S. 1st Ave. Yakima, WA - 98902 Phone: 509-248-0872				10
Cooper Lighting	Specialties Controls	Business Type Manufacturer - Rep	Join Date 11/20/2012	Projects Completed
1121 Highway 74 South Peachtree City, GA - 30269 Phone: 770-486-3092 x 3092 Website: www.cooperlighting.com	Lighting	manufacturor recp	. 1/20/2012	null
<b>Current Electric Solution</b>	Specialties Controls	Business Type	Join Date	Projects Completed
11979 W. Hwy 12 Lowden, WA - 99360 Phone: 509-526-0161 Website: www.currentelectricsolutions.com	Controls Irrigation Lighting Motors and VFDs Other: Other Specialty	Contractor	12/14/2012	Completed 2



Dayco Heating & Air 11 N. Auburn	Specialties HVAC - unitary	Business Type Contractor	Join Date 04/01/2006	Projects Completed
Kennewick, WA - 99337 Phone: 509-586-9464				
Dilbeck Electric, Inc.*	Specialties Lighting	Business Type Contractor	Join Date 06/01/2005	Projects Completed
517 S. 2nd Avenue Yakima, WA - 98902 Phone: 509-575-4666	Motors and VFDs			7
Doyle Electric Inc.	Specialties Lighting	Business Type Contractor	Join Date 10/15/2006	Projects Completed
1421 Dell Avenue Walla Walla, WA - 99362 Phone: 509-529-2500 Website: doyleelectric.com				8
ecomodus	Specialties Lighting	Business Type Contractor	Join Date 02/01/2012	Projects Completed
5110 Tieton Drive Yakima, WA - 98908 Phone: 509-307-4363	3 * 3			66
Electrical Frontier Inc.	Specialties Lighting	Business Type Contractor	Join Date 07/01/2012	Projects Completed
4240 Thorp Road Moxee, WA - 98936 Phone: 509-945-5703	ů ů			1
<b>Evolve Guest Controls</b>	Specialties	Business Type Manufacturer - Rep	Join Date 06/01/2012	Projects Completed
85 Denton Avenue New Hyde Park, NY - 11040 Phone: 516-448-1862 Website: eguestcontrols.com	Other: Other Specialty			
Extra Effort Consulting & Supply	Specialties Lighting	Business Type Distributor	Join Date 04/01/2012	Projects Completed
14530 SW 144th Ave. Tigard, OR - 97224 Phone: 503-780-2359 Website: www.ExtraEffortLLC.com	Motors and VFDs	2.01.100.101	0 //0 //2012	Completed
FGI, IIc	Specialties Lighting	Business Type	Join Date 03/12/2013	Projects Completed
932 W. 32nd Avenue Spokane, WA - 99203 Phone: 800-630-7345 Website: www.fgillumination.com	gg	Other: Consultant	00/12/2010	Completed
Grassi Refrigeration	Specialties HVAC - unitary	Business Type Contractor	Join Date 06/01/2006	Projects Completed
1445 W. Rose Walla Walla, WA - 99362 Phone: 509-529-9700	Motors and VFDs			Completed
Greenwalt Electric LLC	Specialties Lighting	Business Type Contractor	Join Date 10/28/2008	Projects Completed
PO Box 850 Naches, WA - 98937 Phone: 509-949-8223	Motors and VFDs	Communication	10/20/2000	12
HanitaTek Window Film	Specialties Building envelope	Business Type Engineering Firm	Join Date 08/06/2013	Projects Completed
4010 La Reunion Pkwy, #100 Dallas, TX - 75212 Phone: 800-660-5559 Website: www.HanitaTek.com	3	3 · · · · · · · ·		
Hendon Electric	Specialties Lighting	Business Type Contractor	Join Date 03/01/2005	Projects Completed
82075 Hwy 395 N Umatilla, OR - 97882 Phone: 541-922-3844	—· <del>y······y</del>	23.11.43.01	30,0112000	5
Hoydar-Buck Inc.	Specialties Lighting	Business Type Contractor	Join Date 09/28/2009	Projects Completed
210 West Orchard Ave Selah, WA - 98942 Phone: 509-697-8800				2



Hutchinson Electric Inc.	Specialties Lighting	Business Type Contractor	Join Date 02/26/2007	Projects Completed
3660 Washout Rd. Sunnyside, WA - 98944 Phone: 509-391-0770	Lighting	Contractor	02/20/2007	13
K&N Electric Motors, Inc.	Specialties	Business Type	Join Date	Projects
9933 N.E. Kinder Rd. Moses Lake, WA - 98837 Phone: 509-765-3399 Website: knelectric.com	Motors and VFDs	Distributor	05/01/2004	Completed 3
KAPCO LLC	Specialties Controls	Business Type Contractor	Join Date 03/04/2014	Projects
4207 Ahtanum Rd. Yakima, WA - 98903 Phone: 509-966-4540	Lighting Motors and VFDs	Contractor	03/04/2014	Completed 28
Kinter Electric*	Specialties Lighting	Business Type Contractor	Join Date 10/31/2009	Projects Completed
2761 E. Edison Rd. PO Box 1058, Sunnyside, WA - 98944 Phone: 509-839-3900 Website: www.kinterelectric.com	Lighting	Contractor	10/31/2003	59
Knobel's Electric Inc.	Specialties Controls	Business Type Contractor	Join Date 12/30/2014	Projects Completed
801 Tenant Lane yakima, WA - 98901 Phone: 509-452-9157 Website: knobelselectric.com	Lighting Motors and VFDs	Contractor	12/30/2014	Completed
Lake Shore Electric, Inc.*	Specialties Lighting	Business Type Contractor	Join Date 05/12/2009	Projects
9702 Tieton Dr. Yakima, WA - 98908 Phone: 509-965-4281	Motors and VFDs Other: Other Specialty	Contractor	00/12/2003	Completed 12
Linden Electric, Inc.	Specialties	Business Type	Join Date 07/06/2006	Projects
9401 Mieras Rd Yakima, WA - 98901 Phone: 509-575-1191	Lighting	Contractor	07/06/2006	Completed 9
M & R Electric Inc.	Specialties Lighting	Business Type Contractor	Join Date 09/08/2014	Projects
3806 OAK AVE. YAKIMA, WA - 98903 Phone: 509-965-1706	Lighting	Contractor	09/00/2014	Completed
M. Campbell & Company, Inc.*	Specialties HVAC - unitary	Business Type Contractor	Join Date 06/01/2004	Projects Completed
2828 W Irving St Pasco, WA - 99301 Phone: 509-545-9848 Website: www.callcampbell.com	Tivice unitary	Contractor	00/01/2004	1
Mantey Heating & Air	Specialties HVAC - unitary	Business Type Contractor	Join Date 10/01/2005	Projects Completed
3703 W. Nobhill Blvd. Yakima, WA - 98902 Phone: 509-966-5520	Motors and VFDs	Contractor	10/01/2005	Completed
Meier Architecture & Engineering	Specialties	Business Type Architect	Join Date	Projects
8697 W. Gage Blvd. Kennewick, WA - 99336 Phone: 509-735-1589 Website: meierinc.com	HVAC - unitary Lighting Motors and VFDs Other: Other Specialty	AIGIILEGE	02/01/2012	Completed
MH Electric Inc.*	Specialties	Business Type Contractor	Join Date 01/06/2010	Projects Completed
Po Box 11224 Yakima, WA - 98909 Phone: 509-452-6039	Lighting Motors and VFDs	Contractor	01/00/2010	Completed 132
Micro Computer Systems	Specialties Office equipment	Business Type	Join Date 04/01/2012	Projects Completed
12631 Beverly Park Road Lynnwood, WA - 98087 Phone: 800-658-1000 x 9889 Website: www.microk12.com	Other: Other Specialty	Other: Other	0 <del>4</del> /01/2012	Completed



Nico Electrical Contracting P.O. Box 476 Walla Walla, WA - 99362 Phone: 509-526-9658	Specialties Lighting	Business Type Contractor	<b>Join Date</b> 09/21/2012	Projects Completed
Norstar Electric  11780 Mieras Rd. Yakima, WA - 98901 Phone: 509-961-8161	Specialties Lighting	Business Type Contractor	<b>Join Date</b> 01/01/2006	Projects Completed 5
North Coast Electric - Pasco  1928 West A Street Pasco, WA - 99301 Phone: 509-547-9514 Website: www.northcoastelectric.com	Specialties Lighting	Business Type Distributor	Join Date 09/21/2012	Projects Completed 4
North Coast Electric - Seattle  2424 8th Ave. So. Seattle, WA - 98134 Phone: 206-436-4444 x 4444 Website: www.ncelec.com	Specialties Lighting Motors and VFDs	Business Type Distributor	Join Date 06/27/2014	Projects Completed
North Coast Electric - Spokane  4216 E. Main Avenue Spokane, WA - 99202 Phone: 509-951-3726	<b>Specialties</b> Lighting	Business Type Distributor	Join Date 03/28/2013	Projects Completed
North Coast Electric - Wenatchee  1415 N Miller Wenatchee, WA - 98801 Phone: 509-663-8603 Website: www.northcoastelectric.com	Specialties Lighting	Business Type Distributor	Join Date 09/21/2012	Projects Completed null
Northwest Electrical Supply Company (NESCO) 111 S. 3rd Ave. Yakima, WA - 98902 Phone: 509-575-0354	Specialties HVAC - unitary Lighting Motors and VFDs	Business Type Distributor	Join Date 09/21/2012	Projects Completed 10
Parsons Electric 415 Viewmont Pl. Yakima, WA - 98908 Phone: 509-930-1292	Specialties Lighting	Business Type Contractor	Join Date 08/03/2007	Projects Completed 23
Performance Lighting Solutions PO Box 1626 Kalama, WA - 98625 Phone: 360-431-5112	<b>Specialties</b> Lighting	Business Type Other: General Contractor	Join Date 10/11/2013	Projects Completed
Picatti Brothers Inc. 105 S. 3rd St. Yakima, WA - 98902 Phone: 509-248-2540	<b>Specialties</b> Lighting Motors and VFDs	Business Type Contractor	Join Date 06/18/2009	Projects Completed 2
Platt Electric Supply - Walla Walla 415 West Main Walla Walla, WA - 99362 Phone: 509-522-0611 Website: platt.com	Specialties Lighting	Business Type Distributor	Join Date 04/07/2007	Projects Completed 24
Platt Electric Supply - Yakima  16 S. 1st Avenue Yakima, WA - 98902 Phone: 509-452-6444 Website: platt.com	<b>Specialties</b> Lighting	Business Type Distributor	Join Date 08/16/2006	Projects Completed 96
Pro Controls Inc.  1312 Gordon Rd Yakima, WA - 98901 Phone: 509-388-4186 Website: procontrolsyakima.com	Specialties Controls HVAC - unitary Lighting Motors and VFDs	Business Type Contractor	Join Date 07/01/2012	Projects Completed 1



Rainbow Electric, Inc.	Specialties Building envelope	Business Type Contractor	Join Date 06/11/2014	Projects Completed
1312 Dazet Rd Yakima, WA - 98908 Phone: 509-972-2558 x 105	Food Service Lighting Other: Other Specialty			1
Rexel - Capitol Light - Hartford, CT	Specialties Controls	Business Type Distributor	Join Date 06/13/2014	Projects Completed
270 Locust Street Hartford, CT - 06141 Phone: 866-520-2388 Website: www.capitollight.com	Lighting		00,10,2011	Completed
Roberts Electrical Inc.	Specialties HVAC - unitary	Business Type Contractor	Join Date 05/01/2012	Projects Completed
13761 US Highway 12 Naches, WA - 98937 Phone: 509-930-3803	Lighting Motors and VFDs	Odnitación	03/01/2012	2
Rucker Electric, LLC	Specialties Lighting	Business Type Contractor	Join Date 01/25/2015	Projects Completed
9001 Roza Hill Drive Yakima, WA - 98901 Phone: 509-949-5156	Motors and VFDs	Communica	0 1/23/2010	8
S & S Electric	Specialties Lighting	Business Type Contractor	Join Date 05/31/2005	Projects Completed
315 White Walla Walla, WA - 99362 Phone: 509-525-7720	Lighting	Contractor	00/01/2000	3
Schaefer Refrigeration, Inc.	Specialties HVAC - unitary	Business Type Contractor	Join Date 06/01/2004	Projects Completed
2929 E. Isaacs Walla Walla, WA - 99362 Phone: 509-525-2076	Motors and VFDs	Odnitación	00/01/2004	2
Schneider Electric Buildings Americas, Inc.	Specialties HVAC - unitary Lighting	Business Type Engineering Firm	Join Date 10/10/2010	Projects Completed
95 S. Jackson Street, Suite 300 Seattle, WA - 98104 Phone: 360-823-3040 Website: www.schneider-electric.com	Motors and VFDs			•
Stoneway Electric - Walla Walla	Specialties Lighting	Business Type Distributor	Join Date 06/08/2006	Projects Completed
44 S Palouse Street Walla Walla, WA - 99362 Phone: 509-522-1550 Website: stoneway.com	Ligiting	DISTRIBUTO!	00/00/2000	4
Stoneway Electric - Yakima	Specialties Controls	Business Type Distributor	Join Date 02/26/2008	Projects Completed
23 N. 3rd Ave Yakima, WA - 98902 Phone: 509-469-6154	HVAC - unitary Motors and VFDs	Distributer	02/23/2000	Completed
Stusser Electric Company	Specialties HVAC - unitary	Business Type Distributor	Join Date 04/28/2007	Projects Completed
116 N. 2nd Ave. Yakima, WA - 98902 Phone: 509-453-0378	Lighting Motors and VFDs			22
T&M Heating	<b>Specialties</b> HVAC - unitary	Business Type Contractor	Join Date 07/01/2004	Projects Completed
PO Box 3120 2711 S. 5th Ave, Union Gap, WA - 98903 Phone: 509-575-1088	TivAC unitary	Contractor	07/01/2004	Completed
Thermex Valley Heating & AC	Specialties HVAC - unitary	Business Type Contractor	Join Date 07/01/2004	Projects Completed
1916 Fruitvale Blvd. Yakima, WA - 98902 Phone: 509-965-0630 Website: thermexvalley.com	Motors and VFDs	Contractor	3770 172004	Completed
Thunder Electric Inc.	Specialties	Business Type Contractor	Join Date 09/11/2014	Projects Completed
704 River Road Yakima, WA - 98902 Phone: 509-575-8362	Lighting	Contractor	09/11/2014	Completed



Tolman Electric 380 Canyon Road Grandview, WA - 98930 Phone: 509-830-1164	Specialties HVAC - unitary Lighting Motors and VFDs	Business Type Contractor	Join Date 04/10/2010	Projects Completed 3
Total Control Electric Inc.  5 East F Street Yakima, WA - 98902 Phone: 509-453-1021	<b>Specialties</b> Lighting Motors and VFDs	Business Type Contractor	Join Date 06/08/2006	Projects Completed 11
Total Energy Management  1975 Butler Loop Richland, WA - 99352 Phone: 509-946-4500	Specialties HVAC - unitary	Business Type Contractor	Join Date 08/01/2004	Projects Completed 2
Walla Walla Electric*  1225 W. Poplar Walla Walla, WA - 99362 Phone: 509-525-8672 Website: wwelectric.com	Specialties Lighting	Business Type Contractor	Join Date 04/09/2001	Projects Completed 97
Ziegler Electric*  202 Country Crest Rd Yakima, WA - 98901 Phone: 509-930-3300	Specialties Lighting	Business Type Contractor	<b>Join Date</b> 04/01/2001	Projects Completed 82



# Appendix 7 Communications

Pacific Power

## **Energy Efficiency Communications 2014 (only showing new creative)**

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

TV
Wattsmart, WA Dishes (appliance incentives)
Wattsmart, WA Apple Pie (insulation)
Wattsmart, WA Caulk Gun (weatherization)
wattsmart, WA 78 Degrees/Veggies (energy efficiency)
Math Girl - Spanish
RADIO
Radio
2014 will be better – new cash incentives
Wattsmart, WA Good Place – winter efficiency
Wattsmart, WA Festival – winter efficiency
Wattsmart, WA non-season – energy efficiency
<u>Dream Business – not Alaska</u>
<u>Dream Business – not Switzerland</u>
Print
English
New Incentives - hook
Wattsmart WA, Generic
Wattsmart WA, Insulation
Wattsmart WA, Caulking
HES

wattsmart Business Thank You
wattsmart Business – watch your savings grow
John I Haas Case Study ad
Port of Columbia Case Study ad

### Digital Ads:

- Wattsmart, Washington energy efficiency (animated)
- Wattsmart, Washington weatherization (static)
- Wattsmart, Washington weatherization (animated)
- See ya later, refrigerator (animated, 300x250)
- See ya later, refrigerator (animated, 728x90)

#### Inserts:

- February *Insulation incentives*
- April *Cooling incentives*
- August *See ya later, refrigerator*
- September <u>wattsmart starter kits</u>
- September <u>Conservation report</u>

#### Newsletters:

- January Voices
- February Energy Insights
- March Voices
- April Voices
- May wattsup insert
- May Energy Insights
- July *Voices*
- August Energy Insights
- September Voices
- October wattsup insert
- November *Voices*
- November Energy Insights

### Outer Envelope:

• March – be wattsmart

October – weatherize

#### Direct mail:

- Home Energy Reports sample
- wattsmart Starter Kit (6/5)
- Home Energy Savings Manufactured Home Duct Sealing Letter (5/30)
- wattsmart Starter Kit mailing (9/11 & 9/24)
- wattsmart Business irrigation mailing to nearly 2,600 irrigation customers

#### **Emails:**

- <u>eVoices (1/13)</u>
- Energy Update for managed accounts and opinion leaders (2/3)
- Energy Connections for midsize business customers (2/18)
- Energy Update for managed accounts and opinion leaders (3/4)
- Energy Connections for midsize business customers (3/18)
- eVoices (3/20)
- Energy Update for managed accounts and opinion leaders (4/1)
- Energy Connections for midsize business customers (4/15)
- Energy Update for managed accounts and opinion leaders (5/1)
- eVoices (5/1)
- Energy Connections for midsize business customers (5/15)
- Residential load forecast survey email (5/15-5/16)
- Energy Insights for managed accounts and opinion leaders (5/22)
- Energy Update for managed accounts and opinion leaders (6/3)
- Energy Connections for midsize business customers (6/17)
- Energy Update for managed accounts and opinion leaders (7/1)
- eVoices (7/7)
- Energy Update for managed accounts and opinion leaders (8/5)
- Energy Connections for midsize business customers (8/19)
- Energy Update for managed accounts and opinion leaders (9/2)
- Energy Connections for midsize business customers (9/16)
- eVoices (9/24)

- wattsmart Starter Kit (9/19)
- Energy Update for managed accounts and opinion leaders (10/1)
- Home Energy Report email template
- eVoices (11/21)
- Energy Connections for midsize business customers (12/16)
- Energy Insights for communities and managed accounts (12/2)
- Heating tips and information on incentives for mid-size business (12/9)

#### Collateral:

- ENERGY STAR Guide for Restaurants
- Winter wattsmart handout Washington
- Summer wattsmart handout
- wattsmart homebuyer checklist
- wattsmart Business overview
- wattsmart Business brochure
- Energy Project Manager co-funding flyer
- Lighting Standards flyer
- wattsmart Business Case study: Bicycle Barn
- wattsmart Business Case study: Borton Fruit
- wattsmart Business Case study: Marcus Whitman Hotel and Conference Center
- wattsmart Business case study: Fashion Corner
- wattsmart Business case study: Port of Columbia
- wattsmart Business: Energy Management Overview
- wattsmart Starter Kit box label
- wattsmart Starter Kit box insert
- Heating door hanger
- Flyer for wattsmart Business event: Walla Walla (10/22)
- Flyer for wattsmart Business event: Dayton (10/22)
- Business Solutions Toolkit handout
- Business Solutions Toolkit tip sheet