



## 2013 California Annual Review of Energy Efficiency Programs

January 1, 2013 – December 31, 2013

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### LIST OF ABBREVIATIONS AND ACRONYMS

CARE	California Alternate Rates for Energy
CSD	Community Services and Development
CFL	Compact Fluorescent Lighting
Commission	California Public Utilities Commission
DSM	Demand-Side Management
DSMC	DSM Central – Upgrade of new tracking system
DSM Tariff Rider	Schedule S-191 and Schedule S-192 Customer Efficiency Service Charges
ESAP	Energy Savings Assistance Program
GNC	Great Northern Corporation
HVAC	Heating, ventilation and air conditioning
IRP	Integrated Resource Plan
kWh	Kilowatt hour
kW	Kilowatt
M&V	Measurement & Verification
NPV	Net present value
NTG	Net-to-Gross
RCAA	Redwood Community Action Agency
TRL	Technical Reference Library

## EXECUTIVE SUMMARY

PacifiCorp (“Company”) is a multi-jurisdiction electric utility providing electric service to retail customers in California, Idaho, Oregon, Utah, Washington, and Wyoming. PacifiCorp serves approximately 45,000 customers in Shasta, Modoc, Del Norte, and Siskiyou counties in northern California.

The Company received approval from the California Public Utilities Commission (the “Commission”), to offer its customers energy efficiency information, services and incentives through four programs targeting residential, commercial, industrial and agricultural customers in Application 07-07-011, Decision (“D.”) 08-01-041.

The Company, on behalf of its customers, invested \$2.1m in energy efficiency information, services and incentives during the period January 1, 2013, through December 31, 2013. The investment yielded approximately 4.9 gigawatt-hours in first year savings<sup>1</sup> and approximately 1.22 megawatts of capacity reduction.<sup>2</sup>

As approved in D. 08-01-041, costs associated with the energy efficiency programs are recovered through Schedule S-191, Surcharge to Fund Public Purpose Programs, and Schedule S-192, Surcharge to Fund Energy Savings Assistance Program (“ESAP”) hereafter referred to collectively as DSM Tariff Rider.

This report provides details on program results and activities, expenditures, and the current status of the DSM Tariff Rider for the period of January 1, 2013, through December 31, 2013. Program results are summarized in Table 1 below.

**Table 1**  
**Total Portfolio Performance**

<b>2013 Total Portfolio Performance</b>	
Expenditures	\$2,131,145
kWh-Yr Savings (gross – at generation)	4,924,682

Overall, program participation increased and savings decreased from 2012 levels. In 2012, the Company acquired savings of 6.4 gigawatt-hours compared to the acquisition of 4.9 gigawatt-hours in 2013. Residential participation and savings increased 34 percent and 4 percent from 2012, respectively. Business sector participation increased 63 percent from 2012, but overall savings decreased<sup>3</sup> 42 percent. Total program expenditures also increased by 2 percent, from \$2,088,986 in 2012 to \$2,131,145 in 2013.

<sup>1</sup> At generation.

<sup>2</sup> See Appendix 1 for an explanation on how the capacity contribution savings values are calculated.

<sup>3</sup> In 2012 there was a major project within the commercial and industrial sector that was completed. There was no similar project in 2013.

Since the late 1970's, the Company has provided customers with information on no-cost, low-cost energy efficiency practices through billing inserts and general Company communication and outreach. During the reporting period, no-cost and low-cost energy efficiency tips or information regarding energy efficiency programs was included in customers' bills through newsletters or program inserts.

In addition, the Company, working with its third-party program delivery administrators,<sup>4</sup> collaborates with the following number of retailers, contractors and vendors to support the Company's energy efficiency programs in California:

**Table 2**  
**Energy Efficiency Infrastructure**

Sector	Type	No.
Residential	Lighting Retailers	20
	Appliances Retailers	44
	HVAC Contractors	15
	Low Income Agencies	2
Commercial and Industrial	Lighting Trade Allies	20
	HVAC Trade Allies	7
	Motor Trade Allies	10
	Irrigation Trade Allies	6
	Engineering Firms	22

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<sup>4</sup> See program specific information for backgrounds on third party administrators.

## REGULATORY ACTIVITIES

The Company filed Advice Letter 490-E on May 9, 2013, to establish Schedule S-192 and reinstate the surcharge that funds the ESAP. Schedule S-192 is designed to separate the funding for the existing ESAP from the general public purpose funding to allow for ease of tracking. The advice letter was approved with new rates effective June 8, 2013.

The Company filed Application A.13-07-015 on July 22, 2013, to reactivate the surcharge that funds its DSM programs through Schedule S-191. A Commission decision on the application is pending.

Additional regulatory activity in 2013 was limited to filing the 2012 Annual Review of Energy Efficiency Programs. This report was filed with the Commission on March 15, 2013.

The Company anticipates making a filing in 2014 to consolidate the commercial and industrial programs, Energy FinAnswer and FinAnswer Express, into a single program, “wattsmart Business.” The consolidation will streamline and expand incentive options and encourage greater participation in the program. The Company also plans to update incentives in the Home Energy Savings program through the flexible tariff process. The Company intends to continue to offer California customers opportunities for energy savings in their homes and businesses.

Revenues for Schedules S-191 and S-192 and approved DSM expenses are tracked in a Public Purpose Balancing Account. Monthly expenditures, collected revenues and other relevant activities in the Public Purpose Account in 2013 are summarized in Table 3 below.



Table 3  
2013 Public Purpose Account

**2013 Public Purpose Account Report**

Month	Expenditures	S-191 DSM Revenue	S-192 ESAP Revenue	Carry Charges ESAP	Cash Basis Accumulative Balance	Net Cost Accrual	Accrual Basis Accumulative Balance
Dec-12					\$ (882,327)	\$ 116,846	\$ (765,481)
Jan-13	\$ 82,711	\$ -	\$ -	\$ (86)	\$ (799,702)	\$ 14,886	\$ (667,971)
Feb-13	\$ 149,512	\$ -	\$ -	\$ (70)	\$ (650,261)	\$ (31,216)	\$ (549,746)
Mar-13	\$ 127,729	\$ -	\$ -	\$ (53)	\$ (522,585)	\$ 8,590	\$ (413,480)
Apr-13	\$ 170,639	\$ -	\$ -	\$ (54)	\$ (352,000)	\$ (12,087)	\$ (371,827)
May-13	\$ 157,262	\$ -	\$ -	\$ (45)	\$ (194,783)	\$ 61,929	\$ (35,836)
Jun-13	\$ 189,731	\$ -	\$ -	\$ (34)	\$ (5,087)	\$ (2,843)	\$ 151,018
Jul-13	\$ 169,561	\$ -	\$ (32,638)	\$ (26)	\$ 131,810	\$ (53,543)	\$ 234,372
Aug-13	\$ 152,718	\$ -	\$ (120,559)	\$ (23)	\$ 163,946	\$ 29,344	\$ 295,851
Sep-13	\$ 211,886	\$ -	\$ (88,147)	\$ (26)	\$ 287,659	\$ 22,207	\$ 441,771
Oct-13	\$ 219,948	\$ -	\$ (50,288)	\$ (22)	\$ 457,297	\$ (8,164)	\$ 603,245
Nov-13	\$ 142,241	\$ -	\$ (54,016)	\$ (16)	\$ 545,506	\$ 11,215	\$ 702,670
Dec-13	\$ 380,352	\$ -	\$ (60,530)	\$ (16)	\$ 865,312	\$ (21,040)	\$ 1,001,436
<b>2013 Total</b>	<b>\$ 2,154,288</b>	<b>\$ -</b>	<b>\$ (406,178)</b>	<b>\$ (471)</b>		<b>\$ 136,124</b>	

Column Explanations:

Expenditures: Monthly expenditures for approved energy efficiency programs.

S-191 and S-192 Revenue: Revenue collected through Schedule S-191 and Schedule S-192, Public Purpose Charge.

Carrying Charges ESAP: Monthly carrying charge for ESAP based on "Cash Basis Accumulated Balance" of the account.

Net Cost Accrual: Two accrual entries are made each month for expenditures of energy efficiency programs. One estimates the incurred cost not yet processed, and the other reverses the estimate from the previous month. The amount shown here is the net of the two entries. This accounting principle was applied to the balancing account but is not included when calculating the carrying charges.

Cash Basis Accumulative Balance: Current balance of the account; a running total of account activities, excluding the accrued cost. If more is collected in revenue than is spent in monthly program costs for a given month, then the balance will be increased by the net amount. A positive balance means cumulative expenditures exceeds cumulative revenue; a negative balance means cumulative revenue exceeds cumulative expenditures.

Accrual Basis Accumulative Balance: Current balance of the account including accrued costs. A positive balance means cumulative expenditures exceeds cumulative revenue; a negative balance means cumulative revenue exceeds cumulative expenditures.

## PLANNING PROCESS

### Integrated Resource Plan

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

Energy efficiency and peak management resources included in the IRP are divided into four general classes:

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

As technical support for the IRP, a third-party analysis is conducted to estimate the magnitude, timing and cost of alternative energy efficiency and peak management options.<sup>5</sup> The main focus of the study has been on resources with sufficient reliability characteristics that are anticipated to be technically feasible and assumed achievable during the IRP’s 20-year planning horizon. The estimated achievable energy efficiency potential identified in the 2013 Potential Study for California was 14 average megawatts or 15 percent of retail sales.<sup>6</sup> By definition this was the

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<sup>5</sup> Assessment of Long-term, System-Wide Potential for Demand-Side and Other Supplemental Resources, [www.pacificorp.com/content/dam/pacificorp/doc/Energy\\_Sources/Demand\\_Side\\_Management/DSM\\_Potential\\_Study/PacifiCorp\\_DSMPotential\\_FINAL\\_Vol%20I.pdf](http://www.pacificorp.com/content/dam/pacificorp/doc/Energy_Sources/Demand_Side_Management/DSM_Potential_Study/PacifiCorp_DSMPotential_FINAL_Vol%20I.pdf).

<sup>6</sup> Ibid, page 75.

energy efficiency potential that may be achievable and cost effective to acquire during the 20-year planning horizon.

The achievable technical potential for California by sector is shown in Table 4. The 2013 Potential Study indicates that approximately 2 percent of the achievable technical potential for the Company, excluding Oregon,<sup>7</sup> is in California.<sup>8</sup>

**Table 4**  
**California Energy Efficiency Achievable Technical Potential by Sector**

Sector	Average Megawatts in 2032	Percent of Retail Sales
Residential	7	14%
Commercial	5	17%
Industrial	.4	10%
Irrigation	1	10%
Street Lighting	.1	31%

Energy efficiency resources vary in their reliability, load reduction and persistence over time. Based on the significant number of measures identified in the 2013 Potential Study it is difficult to incorporate each measure as a stand-a-lone resource in the IRP. To address this issue, energy efficiency measures are bundled by their weighted-average load shape, lives and costs to reduce the number of combinations to a more manageable number.

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

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

Unless specified as above, the total resource cost test is utilized as the primary determination of cost effectiveness in the resource planning process. However, the Company evaluates program implementation cost effectiveness (both prospectively and retrospectively) under a variation of five tests to identify the relative impact and/or value to customers and the Company (e.g. near-term rate impact, program value to participants, etc.).

The 2013 IRP preferred portfolio includes the acquisition of energy efficiency resources. The IRP seeks opportunities to accelerate these acquisitions as evidenced by the range of the savings

<sup>7</sup> Oregon Demand-side Management potential studies are performed by the Energy Trust of Oregon.

<sup>8</sup> Page 75, Table 52 of the 2013 Assessment of Long-term, System-Wide Potential for Demand-Side and Other Supplemental Resources.

target and expanded set of demand side management related Action Plan activities. The action plan savings targets for the 2013 IRP<sup>9</sup> are shown in Table 5.

Table 5  
Preferred Portfolio Energy Efficiency Targets

2013 Preferred Portfolio	Acquire 1,425-1,876 gigawatt hours (GWh) of cost-effective Class 2 (energy efficiency) resources by the end of 2015 and 2,034-3,180 GWh by the end of 2017.
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<sup>9</sup> 2013 IRP, April 2013.

[www.pacificorp.com/content/dam/pacificorp/doc/Energy\\_Sources/Integrated\\_Resource\\_Plan/2013IRP/PacificCorp-2013IRP\\_Vol1-Main\\_4-30-13.pdf](http://www.pacificorp.com/content/dam/pacificorp/doc/Energy_Sources/Integrated_Resource_Plan/2013IRP/PacificCorp-2013IRP_Vol1-Main_4-30-13.pdf), page 248.

## ENERGY EFFICIENCY PROGRAMS

The Company offers energy efficiency programs to all major customer sectors: residential, commercial, industrial and agricultural. The overall energy efficiency portfolio includes four programs: *Home Energy Savings* – Schedule D-118, *Low Income Weatherization* – Schedule S-192, *FinAnswer Express* – Schedule A-115, *Energy FinAnswer* – Schedule A-125. A residential Refrigerator Recycling (“*See ya later, refrigerator®*”) program is part of the *Home Energy Savings* program in California. Due to specific and separate marketing and tracking, it is shown as a sub-section of the Annual Report. In addition to the energy efficiency programs, the Company, on behalf of customers, invests in outreach and education for the purpose of promoting the efficient use of electricity.

Program, sector and portfolio level results for are provided in Table 6.

Table 6  
California Results January 1, 2013 – December 31, 2013<sup>10</sup>

	2013		
	kWh Savings (at site)	kWh Savings (at generation)	Investment
Low Income	141,300	157,455	\$ 757,045
Home Energy Savings	2,275,561	2,535,725	\$ 599,480
<b>Total Residential</b>	<b>2,416,861</b>	<b>2,693,180</b>	<b>\$ 1,356,525</b>
FinAnswer Express	1,212,025	1,347,081	\$ 407,924
Energy FinAnswer	11,053	12,285	\$ 23,344
<b>Total Commercial</b>	<b>1,223,078</b>	<b>1,359,366</b>	<b>\$ 431,268</b>
FinAnswer Express	27,936	30,706	\$ 116,805
Energy FinAnswer	231,824	254,814	\$ 127,978
<b>Total Industrial</b>	<b>259,760</b>	<b>285,520</b>	<b>\$ 244,783</b>
FinAnswer Express	526,439	586,616	\$ 58,501
<b>Total Agriculture</b>	<b>526,439</b>	<b>586,616</b>	<b>\$ 58,501</b>
Portfolio - DSM Central			\$ 5,070
Portfolio - EM&V			\$ 25,063
Portfolio - TRL			\$ 9,935
<b>Total Energy Efficiency</b>	<b>4,426,138</b>	<b>4,924,682</b>	<b>\$ 2,131,145</b>

<sup>10</sup>During 2013, the Company was implementing a new technical reference library (“TRL”) to store the measures, savings assumptions and data sources for estimating savings as well as upgrading the tracking system (“DSMC”) to store information of completed projects. This is California’s allocated portion.

## RESIDENTIAL PROGRAMS

The residential energy efficiency portfolio is comprised of two programs, *Home Energy Savings* and *Low Income Weatherization*.

### *Home Energy Savings*

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

Program participation by measure for the current period is provided in Table 7.

Table 7  
Eligible Program Measures (Units)

Measures	2013 Total Units
Ceiling Fan	8
Clothes Washer	267
Dishwasher	95
Electric Water Heater	17
Evaporative Cooler	6
Fixture	283
Heat Pump System Conversion	9
Heat Pump Tune-up	1
Heat Pump Upgrade	22
Multi-Head Ductless Heat Pump	27
Portable Evaporative Cooler	5
Refrigerator	170
Room Air Conditioner	27
Single-Head Ductless Heat Pump	66
Lighting - CFL General	62,637
Lighting - CFL Specialty	17,429
<b>Grand Total</b>	<b>81,069</b>

### Program Management

In 2013, the program manager overseeing program activity in California was responsible for the *Home Energy Savings* program and *Refrigerator Recycling* program in California, Idaho, Utah, Washington and Wyoming. For each program and in each state, the program manager is responsible for managing the cost effectiveness of the program, using a competitive bid process to identify and contract the program administrator, establishing and monitoring program performance and compliance, and recommending changes in the terms and conditions set out in the tariff.

### Program Administration

The *Home Energy Savings* program is administered by Portland Energy Conservation, Inc. (“PECI”). PECI, a private non-profit corporation, has been designing and implementing energy efficiency programs since 1990.

PECI is responsible for the following:

- Retailer and trade ally engagement - PECI identifies, recruits, supports and assists retailers to increase the sale of energy efficient lighting, appliances and electronics. PECI enters into agreements with each participating lighting manufacturer and retailer for the promotion of discounted CFLs. The agreements include specific retail locations, lighting products receiving incentives and not-to-exceed annual budgets. HVAC contractors engaged with the program are provided program materials, training and receive regular updates.
- Inspections – PECI recruits and hires inspectors to verify on an on-going basis the installation of measures. A summary of the inspection process is included in Appendix 2 to this report.
- Incentive processing and call-center operations – PECI receives all applications for incentives, determines whether the applications are completed, works directly with customers when information is incorrect and/or missing from the application and processes the application for payment.
- Program specific customer communication and outreach – A summary of the communication and outreach conducted by PECI on behalf of the Company is outlined in the Communication, Outreach and Education section below.

### Infrastructure

Prior to the Company offering the *Home Energy Savings* program, there were few retailers in the Company’s service territory carrying CFLs and retailers rarely promoted high efficiency appliances. Through the program the Company has increased the number of retailers carrying CFLs in its service territory to 20. Table 8 lists the lighting retailers participating in the program.

Table 8<sup>11</sup>  
Retail Stores – Compact Fluorescent Lights

Retailer	City
Ace Hardware	Crescent City
Ace Hardware	Yreka
Ace Hardware	Mount Shasta
Eller's Fort Dick Market	Crescent City
Four Seasons Supply Center	Alturas
Home Depot	Crescent City
Luke's Yreka Drug	Yreka
Platt Electric Supply	Eureka
Platt Electric Supply	Redding
True Value Hardware	Crescent City
True Value Hardware	Dorris
True Value Hardware	Dunsmuir
True Value Hardware	Weed
True Value Hardware	Yreka
True Value Hardware	Alturas
Walgreens	Crescent City
Walmart	Crescent City
Walmart	Yreka
Weed Building Supply	Mount Shasta
Weed Building Supply	Weed

Over 40 local and national retailers now consistently promote high efficiency appliances on behalf of the program. Table 9 lists the retailers where customers are purchasing appliances for program incentives.

<sup>11</sup> To be considered for participation for discounted CFLs, sales coming from Pacific Power customers must be a significant majority of total sales.



Table 9  
Retail Stores – Appliances

Retailer	City	Ceiling Fan	Clothes Washer	Dishwasher	Electric Water Heater	Light Fixture	Portable Evaporative Cooler	Refrigerator	Room Air Conditioner
Ace Hardware - Larsen's	Richfield							√	
Ace Hardware #1134	Mt. Shasta				√				
Ace Hardware #7464	Crescent City					√			
Ace Hardware #8207	Yreka				√		√		
Amazon.com	N/A					√			√
Appliancesconnection.com	N/A		√	√				√	
BestBuy.com	N/A		√					√	
Black's Appliances Audio & Video	Yreka		√	√	√			√	√
Campton Electric Supply	Crescent City					√			
Carmona's Appliance Center	Redding		√		√				
Costco #103	Clarkston								√
Costco of Medford	Medford	√				√			
Crescent Electric	Crescent City					√			
Do It Best Hardware - Mt. Shasta	Mt. Shasta		√	√				√	
Edgewood Custom Interiors	Weed		√						
Four Seasons Supply Center #4523	Alturas						√		
G & G Hardware	Yreka								
Home Depot #1842	Riverbank					√			
Home Depot #4019	Klamath Falls					√		√	
Home Depot #4031	Hermiston					√			
Home Depot #8524	Crescent City	√	√	√	√	√		√	
Home Depot #8557	Phoenix	√	√	√		√		√	
HomeDepot.com	N/A						√		
Lowe's of Medford	Medford	√	√	√	√	√	√	√	√
Lowe's of Redding	Redding		√	√				√	
Lowes.com	N/A	√							
Merit's Home Center	Klamath Falls		√						
North Valley Lighting, Inc.	Redding	√							
Reliance Corp Appliance	Brookings		√					√	
Ron's Furniture and Appliance	Mt. Shasta		√	√				√	
Sears #2179	Medford		√	√				√	

Retailer	City	Ceiling Fan	Clothes Washer	Dishwasher	Electric Water Heater	Light Fixture	Portable Evaporative Cooler	Refrigerator	Room Air Conditioner
Sears #2338	Redding		√					√	
Sears #3059	Klamath Falls							√	
Sears #3489	Harbor		√	√				√	
Sears #3998	Yreka		√	√	√			√	√
Sears.com	N/A		√	√					
Selah Lighting Company	Selah		√						
Solano's Inc.	Weed		√	√		√		√	
True Value Hardware - Seab	Alturas								√
Walmart	Orem								√
Wal-Mart #1630	Yreka								√
Webb Windows	Layton			√					
West Coast Appliance	Brookings			√					
West Coast Appliance	Central Point		√						

Table 10 lists the HVAC contractors participating in the program.

Table 10  
HVAC Contractors

Contractor Name	City	Ductless Heat Pump (Single and Multi-heat)	Heat Pump (HP) Upgrade	Heat Pump Conversion	Heat Pump Tune-up
American Air	Redding				
Chimney Kraft	Crescent City	√	√	√	
Downey Heating and Cooling	Fort Jones	√	√	√	
Dressler Heating and AC	Yreka	√	√	√	
Franks Heating and Refrigeration	Crescent City	√	√	√	
Harbor View Windows, Heating, and Air, Inc.	Crescent City	√			
Metal Masters	Yreka	√			
Meyer and Son's Heating Plumbing and AC Inc.	Dunsmuir				
Mike Brown Heating and AC	Yreka	√			
Mountain Air Heating & Cooling Inc.	Yreka	√	√		
Orca Heating and Refrigeration Inc.	Crescent City				
Phil Carpenter AC & Heating	Redding				
Ray-Mac Mechanical	Mt. Shasta	√		√	
SVM Plumbing, Heating & Air	Yreka	√		√	
United Mechanical Contractors	Yreka				

### Evaluation

No program evaluation activity occurred during 2013.

## Refrigerator Recycling

As previously mentioned, the Refrigerator Recycling (“*See ya later, refrigerator®*”) program is part of the Home Energy Savings program in California. Due to specific and separate marketing and tracking, it is shown as a sub-section of the Annual Report. *See ya later, refrigerator®* is designed to decrease electricity use (kWh) through voluntary removal and recycling of inefficient refrigerators and freezers. Participants receive a \$35 incentive for each qualifying refrigerator or freezer recycled through the program and an energy-savings kit that includes two CFLs, a refrigerator thermometer card, energy-savings educational materials, and information on other efficiency programs relevant to residential customers. Program participation by measure for 2013 is provided in Table 11.

Table 11  
Eligible Program Measures (Units)

Measures	2013 Total
Refrigerator Recycling	225
Freezer Recycling	62
Energy Savings Kit	262

### Program Administration

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

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

JACO is responsible for the following:

- Customer and field services – JACO handles all customer and field service operations for the program. Pick-up of refrigerators and freezers from customers and transporting the units to the de-manufacturing facility is done by JACO.
- Incentive processing and call-center operations – All customer service calls, pick-up scheduling and incentive processing are handled by JACO.
- Program-specific customer communication and outreach – Working in close coordination with the Company, JACO handles all the marketing for the program. The program is marketed through bill inserts, customer newsletters and television, newspaper and online advertising. Separate third-party contractors are employed to inspect and ensure the quality of JACO’s performance. The summary of the inspection process is included in Appendix 2 to this report.

Infrastructure

No refrigerator or freezer recycling services were available in Company's service territory in the state prior to the Company's recycling program.

*Low Income Weatherization*

ESAP provides energy efficiency services through a partnership between Pacific Power and local non-profit agencies to income-eligible households. Services are at no cost to the program participants. Details of ESAP and the California Alternate Rates for Energy ("CARE") program are included in the Annual Low Income Assistance Programs Progress Report that Pacific Power submits to the Commission each year on or before May 1.

In 2013, there were 188 completed/treated homes. The number of homes receiving specific measures in the current period is provided in Table 12. Table 13 provides the number of units installed of a specific measure.

Table 12  
Homes Receiving Specific Measures

Aerators	101
Ceiling Insulation	11
Cooler Cover	7
Duct Insulation	11
Floor Insulation	12
Furnace Filters	23
Furnace Repair/Tune-Up	20
Furnace Replacement	1
Home Repairs	92
Infiltration	81
Outlet Gaskets	96
Showerheads	73
Timed Thermostats	8
Water Heater Repair	23
Water Heater Replacement	2
Water Pipe Insulation and Sealing	29
Weather-Stripping	107

Table 13  
Units Installed of Specific Measures

CFL Fixtures	33
Compact Fluorescent Light Bulbs (CFLs)	764
Microwaves	24
Replacement Refrigerators	60
Replacement Windows	964
Thermal Doors	30

### Program Management

The program manager overseeing program activity in California is responsible for the *Low Income Weatherization* programs in the Company's California (also known as ESAP), Idaho, Utah, Washington and Wyoming service areas, *energy assistance* programs in California, Idaho, Oregon, Utah, Washington and Wyoming service areas and bill discount programs in California, Utah and Washington service areas. The program manager is responsible for the cost effectiveness of the weatherization program in each state, partnerships and agreements in place with local agencies that serve income eligible households, establishing and monitoring program performance and compliance, and recommending changes in the terms and conditions set out in the agency contracts.

### Program Administration

The Company currently has contracts in place with Great Northern Corporation ("GNC") and Redwood Community Action Agency ("RCAA") to provide services through the ESAP program. These two agencies subcontract with the California Department of Community Services and Development ("CSD") to provide low income weatherization services throughout Del Norte, Modoc and Siskiyou Counties with federal and state grants. Company funding of 50 percent of the cost of approved measures is leveraged by the agencies with the funding allocated by CSD. When the government funding is depleted, Pacific Power will cover 100 percent of related costs. Low income weatherization services in Shasta County are provided by an organization called Self Help Home Improvement Project Inc.

By contract with the Company, GNC and RCAA are responsible for the following:

- Income Verification – Agencies determine participants are income eligible based on CSD guidelines. Households interested in obtaining weatherization services apply through the agencies. The current income guidelines are included in Appendix 3.
- Energy Audit – Agencies use a U.S. Department of Energy approved audit tool as required by CSD to determine the cost effective measures to install in the participant's homes (audit results must indicate a savings to investment ratio of 1.0 or greater).
- Installation of Measures – Agencies install the energy efficiency measures.
- Post Inspections – Agencies inspect 100 percent of completed homes. A sample of 5 -10 percent are inspected by a Pacific Power inspector. See Appendix 2 for verification summary.

Billing Notification - Agencies are required to submit a billing to the Company within 45 days after job completion. A homeowner agreement and invoice form indicating the measures installed and associated cost is submitted on each completed home. A copy of this form is included in Appendix 3

## COMMERCIAL AND INDUSTRIAL PROGRAMS

The commercial and industrial energy efficiency portfolio is comprised of two programs, *FinAnswer Express* and *Energy FinAnswer*.

### *FinAnswer Express*

The *FinAnswer Express* program is designed to assist commercial, industrial, and agricultural customers in improving the efficiency of their new or replacement lighting, HVAC, motors, irrigation, building envelope and other equipment by providing prescriptive or pre-defined incentives for the most common efficiency measures listed in the program incentive tables included in the energy efficiency section of the Company website.<sup>12</sup> The program also includes custom incentives and technical analysis services for measures not listed in the program incentive tables that improve electric energy efficiency. Although incentives available may vary, the program provides incentives for both new construction and retrofit projects. The program is designed to operate in conjunction with the Energy FinAnswer program.

Program participation by measure group for the current period is provided in Table 14.

Table 14  
Installed Program Measures (applications)

Measure Groups	2013 Total
Building Shell	4
Food Service	6
HVAC	9
Irrigation	59
Lighting	52
Motors	6
Program Totals	136

Program savings by measure group for the current period is provided in Table 15.

Table 15  
Installed Program Measures (kWh/year at site)

Measure Groups	2013 Total
Building Shell	1,168
Food Service	65,052
HVAC	170,753

<sup>12</sup> Program incentive tables can be accessed from the California FinAnswer Express web pages at [https://www.pacificpower.net/content/dam/pacific\\_power/doc/Business/Save\\_Energy\\_Money/CA\\_FinAnswer\\_Express\\_Retrofit\\_Incentives\\_Brochure.pdf](https://www.pacificpower.net/content/dam/pacific_power/doc/Business/Save_Energy_Money/CA_FinAnswer_Express_Retrofit_Incentives_Brochure.pdf) and [https://www.pacificpower.net/content/dam/pacific\\_power/doc/Business/Save\\_Energy\\_Money/CA\\_FinAnswer\\_Express\\_New\\_Construction\\_Incentives\\_Brochure.pdf](https://www.pacificpower.net/content/dam/pacific_power/doc/Business/Save_Energy_Money/CA_FinAnswer_Express_New_Construction_Incentives_Brochure.pdf).

Measure Groups	2013 Total
Irrigation	526,439
Lighting	992,152
Motors	10,836
Program Totals	1,766,400

### Program Management

The program manager overseeing program activity in California is responsible for the program in California, Idaho, Utah, Washington and Wyoming. For each state the program manager is responsible for managing the cost effectiveness of the program, using a competitive bid process to identify and contract with the program administrators, program marketing, establishing and monitoring program performance and compliance, and recommending changes in the terms and conditions set out in the tariff.

### Program Administration

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

Nexant and Cascade are responsible for the following:

- Trade ally engagement – identify, recruit, train, support and assist trade allies to increase sales and installation of energy efficient equipment at qualifying business customer facilities.
- Incentive processing and administrative support – handle incoming inquiries as assigned, process FinAnswer Express incentive applications, develop and maintain simplified analysis tools and provide program design services, evaluation and regulatory support upon request.
- Inspections – verify on an on-going basis the installation of measures. Summary of the inspection process is in Appendix 2 to this report.

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

### Infrastructure

To help increase and improve the supplier and installation contractor infrastructure for energy-efficient equipment and services, the Company established and continues to develop and support trade ally networks for lighting, HVAC, motors and irrigation. This work includes identifying and recruiting trade allies, providing program and technical training and providing sales support on an ongoing basis. The current lists of the trade allies who have applied and been approved as



participating vendors are posted on the Company website and is included as Appendix 4 to this report.

Customers are not required to select a vendor from these lists to receive an incentive.

The total number of participating trade allies is currently 31. The counts of participating trade allies by technology, as of December 31, 2013 are in the Table 16 below.

Table 16  
Participating Trade Allies<sup>13</sup>

Lighting trade allies	HVAC trade allies	Motors trade allies	Irrigation trade allies
20	7	10	6

### Evaluation

In February 2013, a process and impact evaluation was completed by a third party evaluator. The impact evaluation provided data on the gross realized savings and the net-to-gross ratio<sup>14</sup> (“NTG”). The process evaluation investigated participant satisfaction, implementation and delivery processes, marketing methods and quality assurance. The results of the evaluation can be viewed at [www.pacificorp.com/es/dsm/california.html](http://www.pacificorp.com/es/dsm/california.html). The Company’s responses to the evaluation recommendations are included in Appendix 5 to this report.

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

### *Energy FinAnswer*

The *Energy FinAnswer* program is offered to commercial (buildings 20,000 square feet and larger) and industrial customers. The program is designed to target comprehensive projects requiring project-specific energy savings analysis and operates in concert with the more streamlined FinAnswer Express program. The program provides Company-funded energy engineering, incentives of \$0.12 per kWh for first-year energy savings and \$50 per kW of average monthly demand savings, up to a cap of 50 percent of the approved project cost. In addition to customer incentives, the program provides design team honorariums (e.g. a finder fee for new construction projects) and design team incentives for new construction projects exceeding the California Energy Code by at least 10 percent.

<sup>13</sup> Some trade allies may participate in more than one technology. The count of unique participating firms is less than the total count provided above.

<sup>14</sup> NTG is a factor representing net program savings divided by gross program savings that is applied to gross program impacts. This ratio is most often calculated as  $NTG = 1 - \text{freeridership rate} + \text{spillover rate}$ .

Projects completed in the current period are provided in Table 17.

Table 17  
Projects Completed

Sector	2013 Total
Commercial	1
Industrial	5
Total Projects Completed	6

Program participation by measure group in the current period is provided in Table 18.

Table 18  
Installed Program Measures

Measure Groups	2013 Total	2013 Totals
	Applications	kWh Savings
Compressed Air	1	11,053
HVAC	1	11,053
Irrigation	1	62,904
Motors	2	86,275
Refrigeration	1	71,592
Program Totals	6	242,877

### Program Management

The program manager overseeing program activity in California is responsible for the *Energy FinAnswer* program in California, Idaho, Utah, Washington and Wyoming. The Company employs five full-time project managers<sup>15</sup> in support of the program manager.

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

- Program cost effectiveness and performance
- Ensuring the program is operated in compliance with applicable tariffs and Company guidelines including but not limited to qualification of customers
- Customer communication and outreach
- Monitoring code and standard changes
- Qualification of materials and equipment
- Engineering analysis of customer opportunities
- Quality control and assurance
- Customer service, including the delivery of services and incentive

<sup>15</sup> Based on the volume of projects, temporary project managers and/or support staff are employed from time-to-time.

- Verification of installation and savings<sup>16</sup>

### Infrastructure

Given the diversity of the commercial and industrial customers served by the Company, a pre-approved, pre-contracted group of engineering firms are used to perform facility specific energy efficiency analysis, quality assurance and verification. This being said, the individual projects are directly managed by one of the Company's project managers. The project manager works directly with the customer or through the Company's assigned community and customer account managers located in southern Oregon who are also responsible for working with California commercial and industrial customers. Table 19 lists the engineering firms currently under contract with the Company.

Table 19  
Engineering Firms

Engineering Firm	Main Office Location
Abacus Resource Management Company	Beaverton, OR
Brendle Group	Fort Collins, CO
Cascade Energy Engineering	Cedar Hills, UT
Compression Engineering Corp	Salt Lake City, UT
Ecova	Portland, OR
EMP2, Inc	Richland, VA
Energy Resource Integration, LLC	Sausalito, CA
Energy and Resource Solutions	North Andover, MA
EnerNOC Inc.	Portland, OR
EnSave, Incorporated	Richmond, VT
ETC Group, Incorporated	Salt Lake City, UT
Evergreen Consulting Group	Beaverton, OR
Fazio Engineering	Weston, OR
kW Engineering, Inc.	Salt Lake City, UT
Lincus Incorporated	Tempe, AZ
Nexant, Incorporated	Salt Lake City, UT
QEI Energy Management, Inc.	Beaverton, OR
RM Energy Consulting	Pleasant Grove, UT
Rick Rumsey, LLC	Ammon, ID
SBW Consulting, Inc.	Bellevue, WA
Solarc Architecture & Engineering, Inc.	Eugene, OR
Triple Point Energy	Portland, OR

### Evaluation

In February 2013, a process and impact evaluation was completed by a third party evaluator. The impact evaluation provided data on the gross realized savings and the NTG. The process evaluation investigated participant satisfaction, implementation and delivery processes, marketing methods and quality assurance. The results of the evaluation can be viewed

<sup>16</sup> A summary of inspection process is included in Appendix 2.

at [www.pacificorp.com/es/dsm/california.html](http://www.pacificorp.com/es/dsm/california.html). The Company's responses to the evaluation recommendations are included in Appendix 3 to this report.

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

## COMMUNICATIONS, OUTREACH AND EDUCATION

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

### Customer Communications

As part of the Company's regular communications to its customers, newsletters delivered to all customer classes promote energy efficiency initiatives and case studies on a regular basis. Inserts and outer envelopes featuring energy efficiency messages have also been used on a consistent basis.

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

### Program Specific Communications

#### Home Energy Savings

Information on the *Home Energy Savings* program is communicated to customers, retailers and trade allies through a variety of channels. A new program brochure was developed, which highlights the benefits of energy efficient appliances and equipment and lists the incentives available in California. In addition, a sales kit folder with marketing materials was used by program field staff as a resource for retailer and trade ally engagement.

During the summer months, program communications focused on cooling measures. The cooling campaign included:

- Point of purchase materials
- Handout material for retailers and trade allies to use in their sales to customers
- Website features
- Bill inserts
- Social media

A similar heating campaign was developed for the fall and winter, including:

- Website features
- Sales handout and outreach to trade allies
- Bill insert and incentive check insert
- Social media

To make it easier for customers to submit and track online applications, program staff worked to enhance the system to allow customers to upload electronic receipts and other documents. Other improvements were also made to the online system for appliances and lighting applications. Throughout the year, program staff worked closely with HVAC trade allies to increase ductless heat pump redemptions by identifying customers that had not submitted applications and working with them to complete the paperwork. The program also focused on applications with missing information, to make sure that all possible savings were captured.

### Refrigerator Recycling

The Company promotes the *See ya later, refrigerator*® program through informational television and digital advertisements, bill inserts and other customer communications.

Inserts promoting the *See ya later, refrigerator*® program went out in February, April and September bills. In addition, a postcard was sent in February to customers who had recently purchased a new refrigerator and received an incentive through the Home Energy Savings program.

From August through October, the Company promoted the “refrigerator roundup” to California customers. A total of 70 old refrigerators and freezers were picked up in California during this time, which was the same number of units for this time period in the previous year.

In 2013, the program garnered 381,758 impressions. Breakdown of impressions by media type are shown in Table 20.

Table 20  
*See ya later, refrigerator*® Program

Communications Channel	2013
Television	215,000
Digital Display	166,758

### FinAnswer Express and Energy FinAnswer

Customer communications and outreach in support of *FinAnswer Express* and *Energy FinAnswer* utilized print advertising and digital display ads throughout the reporting period. This was in addition to customer direct contact by Company project managers and corporate and community managers, articles in Company newsletters and content on the Company’s website.

During 2013, communications continued to emphasize the change in federal lighting standards that took place July 14, 2012. This standard applies to manufacturers of general service fluorescent lamps. Customers were encouraged to retrofit their older linear fluorescent lighting because the standards changed. The Company retained a video on its website<sup>17</sup> and a page<sup>18</sup> on

<sup>17</sup> [www.pacificpower.net/casave](http://www.pacificpower.net/casave).

the website dedicated to this topic. In 2013, the program garnered 378,804 media impressions. Breakdown of impressions by media type are shown in Table 21.

Table 21  
*Energy FinAnswer® and FinAnswer® Express Program*

Communications Channel	2013
Digital Display	313,533
Newspaper	65,271

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<sup>18</sup> [www.pacificpower.net/lightingstandards](http://www.pacificpower.net/lightingstandards).

## EVALUATIONS

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

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

Verification of the potential to achieve savings involves regular inspection and commissioning of equipment. The Company engages in programmatic verification activities, including inspections, quality assurance reviews, and tracking checks and balances as part of routine program implementation and may rely upon these practices in the verification of installation information for the purposes of savings verifications in advance of more formal impact evaluation results. A summary of the inspection process is included in Appendix 2.

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

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

The California Energy FinAnswer and FinAnswer Express program evaluations summary of recommendations is provided in Appendix 5. The evaluation reports are available at [www.pacificorp.com/es/dsm/california.html](http://www.pacificorp.com/es/dsm/california.html)





## Appendix 1

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# Estimated Peak Contributions 2013

Pacific Power

## **Energy Efficiency Programs**

The MW reported savings of 1.22 (at generation) for energy efficiency programs during 2013 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 2013, it is calculated that .66 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 (1.81 MW in 2013 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 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 2013 is detailed in the table below.

<b>Line</b>	<b>Description</b>	<b>Value</b>
1	First year EE program MWh savings acquired during 2013	2,693
2	Average MWh value (line 1 / 8760 hours)	0.31
3	Peak MW contribution of 2013 EE acquisitions	0.56

As demonstrated, it is estimated that the residential energy efficiency program acquisitions in 2013 contributed 0.56 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 .66 MW's estimated for the business programs and the 0.56 MW's estimated for residential programs make up the 1.22 MW savings value of energy efficiency programs.



## Appendix 2

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# California Measure Installation Verifications

Pacific Power

# California Measure Installation Verifications

## Low Income Weatherization

All projects

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

## Home Energy Savings

Site inspections by Program Administrator staff for the following retrofit measures ( $\geq 5$  percent)

- Central air conditioner / heat pump tune-ups

Site inspections of 100 percent by Program Administrator staff of all contractor installed measures in new homes such as insulation, windows, heating and cooling systems.

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 (i.e. proof of purchase receipt review) and eligible equipment review. Additionally, customer account and customer address are checked to ensure the Company does not double pay for the same measure or double count measure savings.

- Refrigerators
- Dishwasher
- Ceiling fans
- Light fixtures
- Clothes washers
- Water heaters
- Evaporative coolers
- Room air conditioners
- Central air conditioners
- Heat pump conversion / upgrade

Other measures

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

## Refrigerator Recycling

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

## **FinAnswer Express**

### For projects delivered by third party program administrator

#### Lighting projects

- 100 percent post-site inspections by third party consultant of all projects with incentives over a specified dollar amount.
- A percent of post-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 project manager delivered projects (lighting and non-lighting)

#### Lighting and non-lighting

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

## **Energy FinAnswer**

#### All projects

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



## Appendix 3

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# California Low Income Weatherization

Pacific Power



[Home](#) > [Services](#) > [Help Paying Utility Bills](#) > [Energy Income Guidelines](#)

## Energy Income Guidelines

2013 Income Guidelines		
Persons in Household	Monthly Income	Annual Income
1	\$2,025.33	\$24,304.00
2	\$2,648.50	\$31,782.00
3	\$3,271.66	\$39,260.00
4	\$3,894.86	\$46,738.00
5	\$4,518.00	\$54,216.00
6	\$5,141.16	\$61,694.00
7	\$5,258.00	\$63,096.00
8	\$5,374.83	\$64,498.00
9	\$5,491.75	\$65,901.00
10	\$5,608.58	\$67,303.00

**CALIFORNIA  
PACIFIC POWER  
LOW INCOME WEATHERIZATION PROGRAM  
HOMEOWNER AGREEMENT AND INVOICE**

Audit Date: \_\_\_\_\_

Occupant Name: \_\_\_\_\_ Owner Name: \_\_\_\_\_  
 Address: \_\_\_\_\_ Address: \_\_\_\_\_  
 Telephone: \_\_\_\_\_ Telephone: \_\_\_\_\_  
 Account No.: \_\_\_\_\_

I grant permission for Pacific Power to pay \_\_\_\_\_ (Agency) for the installation of approved energy efficiency measures in the dwelling I own, which is described above. I grant Pacific Power permission to provide Agency usage and billing data on my account, and for a Pacific Power representative to inspect the installed weatherization measures at the above dwelling, if requested.

Owner's Signature \_\_\_\_\_ Date \_\_\_\_\_

Pacific Power Customer Signature (if different than owner) \_\_\_\_\_ Date \_\_\_\_\_

Occupant Type:  (O)wner;  (T)enant;  (V)acant    Space Heat Type:  (B)aseboard;  (C)eiling;  (F)orced (A)ir;  (H)eat (P)ump;  (N)on Electric    Electric Water Heat:  Y or N  
 Year Home Built: \_\_\_\_\_ (8/31/91 or before)    Dwelling Code:  (S)ingle;  (M)obile;  (A)partment;  (D)uplex    1st or 2<sup>nd</sup> time home served  1st  2nd

Vendor Number: _____	MEASURE CODE	MEASURE EXISTS / NA	ESTIMATED ANNUAL KWH SAVED	TOTAL INSTALLED COST	PACIFIC POWER CONTRIBUTION BY MEASURE AT 50% <input type="checkbox"/> 100% <input type="checkbox"/>	DATE INSTALLED MM/DD/YY
	Ceiling Insulation / Ventilation	9 10				
	Floor Insulation	11				
	Pipe Insulation	12				
	Ground Cover	046				
	Wall Insulation	8				
	Duct Insulation <input type="checkbox"/> Duct Sealing <input type="checkbox"/>	15 581				
	Class 40 Replacement Windows	32				
	Caulk & Weatherstrip Windows	3				
	Caulk & Weatherstrip Doors	7				
	Infiltration	18				
	Thermal Doors	31				
	Dehumidifier <input type="checkbox"/> Thermostat <input type="checkbox"/>	17 555				
	Aerators	501				
	CFL #Inst. <input type="checkbox"/> CFL Fix. #Inst. <input type="checkbox"/>	21 600				
	H2O Heater Repair <input type="checkbox"/> Replacement <input type="checkbox"/>	240 273				
	Showerhead	19				
	Furnace/AC filters <input type="checkbox"/> Cooler Cover <input type="checkbox"/>	514 47				
	Furnace Repair <input type="checkbox"/> Replacement <input type="checkbox"/>	271 272				
	Switch and Outlet Gaskets	88				
	Refrigerator Replacement	901				
	Microwave Oven	34				
	<b>TOTALS</b>	*				

- Total Pacific Power Contribution <sup>14</sup> \$ \_\_\_\_\_
- Administrative Reimbursement, Line 1 x 15% (Minimum \$50, and Maximums when billing 50% is included below)
 

<u>Dwelling Units</u>	<u>Maximum</u>	<u>Dwelling Units</u>	<u>Maximum</u>
1 to 4	\$350	16 to 20	\$1400
5 to 10	\$800	1 to 25	\$1600
11 to 15	\$1200	26 to 30	\$1800
		31 +	\$2100
- Energy Related Repairs (list) \_\_\_\_\_ (Maximum \$750) \$ \_\_\_\_\_
- Total Reimbursement to Agency \$ \_\_\_\_\_

Agency Name \_\_\_\_\_ Address \_\_\_\_\_

Agency Representative Signature \_\_\_\_\_ Date \_\_\_\_\_ Phone \_\_\_\_\_





## Appendix 4

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### FinAnswer Express Trade Ally's

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 2006, 2007, 2008, 2009, 2010, 2011 and/or 2012

### Search Criteria:

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

### Search Results: 31 - Date and Time: 02/18/2014 09:43:41 AM

Company Name	Specialties	Business Type	Join Date	Projects Completed
<b>Scott River Pump &amp; Irrigation, Inc.</b> 11231 N. Highway 3 Fort Jones, CA Phone: 530-468-2916 Website: www.scotriverpump.com	Controls Irrigation Motors and VFDs	Distributor	09/18/2012	Completed
<b>McCombs Electric</b> HC3 Box 329 Alturas, CA Phone: 530-840-0067	Controls Lighting Motors and VFDs	Contractor	01/10/2014	Completed
<b>ILESco (Innovative Lighting &amp; Energy Solutions)</b> Anderson, CA Phone: 530-365-0400 Website: www.ilesco.com	Lighting	Other: Other	07/01/2010	Completed
<b>Mt. Shasta Electric Inc.</b> 1108 N. Mt. Shasta Blvd Mt. Shasta, CA Phone: 530-926-4653	Lighting Motors and VFDs	Contractor	07/01/2008	Completed 2
<b>Cooper Lighting</b> 1121 Highway 74 South Peachtree City, GA Phone: 770-486-3092 x 3092 Website: www.cooperlighting.com	Controls Lighting	Manufacturer - Rep	11/20/2012	Completed null
<b>APC Sales and Service Corp.</b> 132 Fairgrounds Road West Kingston, RI Phone: 714-513-7371 Website: www.schneider-electric.com	HVAC - unitary Lighting	Distributor Other: Other	03/01/2012	Completed
<b>Engineering Economics, Inc.</b> 780 Simms Street, Suite 210 Golden, CO Phone: 800-889-8902 Website: www.eeengineers.com	HVAC - evaporative HVAC - unitary Other: Other Specialty	Engineering Firm	08/13/2013	Completed
<b>Crescent Electric*</b> 2855 LakeEarl Dr Crescent City, CA Phone: 707-464-4810	Irrigation Lighting Motors and VFDs	Contractor	04/01/2010	Completed 11

<p><b>Real Green LED</b> 4280 W. 200 N. Cedar City, UT Phone: 951-235-0382 Website: www.realgreen.net</p>	<p><b>Specialties</b> Lighting</p>	<p><b>Business Type</b> Distributor</p>	<p><b>Join Date</b> 08/01/2011</p>	<p><b>Projects Completed</b> Completed</p>
<p><b>FGI, llc</b> 932 W 32nd Avenue Spokane, WA Phone 800-630-7345 Website www.fgilumination.com</p>	<p><b>Specialties</b> Lighting</p>	<p><b>Business Type</b> Other Consultant</p>	<p><b>Join Date</b> 03/12/2013</p>	<p><b>Projects Completed</b> Completed</p>
<p><b>United Mechanical Contractors Inc.</b> 2219 Washburn Way Klamath Falls, OR Phone: 541-884-1521</p>	<p><b>Specialties</b> Compressed Air HVAC - unitary</p>	<p><b>Business Type</b> Contractor</p>	<p><b>Join Date</b> 09/21/2012</p>	<p><b>Projects Completed</b> null</p>
<p><b>HanitaTek Window Film</b> 4010 La Reunion Pkwy, #100 Dallas, TX Phone 800-880-5559 Website www.HanitaTek.com</p>	<p><b>Specialties</b> Building envelope</p>	<p><b>Business Type</b> Engineering Firm</p>	<p><b>Join Date</b> 08/06/2013</p>	<p><b>Projects Completed</b> Completed</p>
<p><b>McCombs Electric</b> HC3 Box 329 Alturas, CA Phone: 530-640-0087</p>	<p><b>Specialties</b> Irrigation</p>	<p><b>Business Type</b> Contractor</p>	<p><b>Join Date</b> 10/25/2013</p>	<p><b>Projects Completed</b> Completed</p>
<p><b>Evolve Guest Controls</b> 85 Denton Avenue New Hyde Park, NY Phone: 516-448-1862 Website: eguestcontrols.com</p>	<p><b>Specialties</b> Other: Other Specialty</p>	<p><b>Business Type</b> Manufacturer - Rep Other: Other</p>	<p><b>Join Date</b> 08/01/2012</p>	<p><b>Projects Completed</b> Completed</p>
<p><b>Clean Tech Lighting and Power</b> 425 23rd St., Suite 100 San Francisco, CA Phone: 415-952-8324 Website: www.cleantechlightingandpower.com</p>	<p><b>Specialties</b> Lighting</p>	<p><b>Business Type</b> Other: Other</p>	<p><b>Join Date</b> 07/01/2012</p>	<p><b>Projects Completed</b> Completed</p>
<p><b>Chimney Kraft</b> 700 Northcrest Drive Suite E Crescent City, CA Phone 707-484-4279</p>	<p><b>Specialties</b> HVAC - evaporative HVAC - unitary</p>	<p><b>Business Type</b> Contractor</p>	<p><b>Join Date</b> 10/17/2012</p>	<p><b>Projects Completed</b> 3</p>
<p><b>qatastpcp</b> 650 edgewater blvd fostercity, CA Phone: 444-444-4444 x 4444</p>	<p><b>Specialties</b> Appliances</p>	<p><b>Business Type</b> Architect</p>	<p><b>Join Date</b> 04/02/2013</p>	<p><b>Projects Completed</b> 650</p>
<p><b>EcoSolar Electric</b> 515 5th 8th St Klamath Falls, OR Phone 541-273-3200</p>	<p><b>Specialties</b> Lighting Motors and VFDs</p>	<p><b>Business Type</b> Contractor</p>	<p><b>Join Date</b> 09/21/2012</p>	<p><b>Projects Completed</b> null</p>
<p><b>Campton Electric Supply, Inc.</b> 485 E. Hoover Ave. Crescent City, CA Phone: 707-485-8446</p>	<p><b>Specialties</b> Lighting</p>	<p><b>Business Type</b> Distributor</p>	<p><b>Join Date</b> 07/01/2008</p>	<p><b>Projects Completed</b> 21</p>
<p><b>Brian Day Electric Inc.*</b> 288 Orchard View Terrace Medford, OR Phone 541-944-8288 Website dayelecinc.com</p>	<p><b>Specialties</b> HVAC - unitary Lighting Motors and VFDs</p>	<p><b>Business Type</b> Contractor</p>	<p><b>Join Date</b> 07/01/2008</p>	<p><b>Projects Completed</b> 3</p>

# Energy Efficiency Alliance



<b>Indoor Environmental Services</b> 1512 Silica Avenue Sacramento, CA Phone: 916-888-8808 Website: isa-hvac.com	<b>Specialties</b> HVAC - unitary Lighting Motors and VFDs Other: Other Specialty	<b>Business Type</b> Contractor	<b>Join Date</b> 11/01/2011	<b>Projects Completed</b> 8
<b>Mike Cheula Electric</b> 1101 Oak St Mt Shasta, CA Phone: 530-828-3203	<b>Specialties</b> Lighting	<b>Business Type</b> Contractor	<b>Join Date</b> 01/01/2009	<b>Projects Completed</b> 2
<b>Brookings Electronic Service, Inc.</b> P.O. Box 537 Brookings, OR Phone: 541-468-2891	<b>Specialties</b> Lighting	<b>Business Type</b> Contractor	<b>Join Date</b> 08/01/2008	<b>Projects Completed</b> Completed
<b>Mirror Lighting, Inc.</b> 14647 W 95th St Lenexa, KS Phone: 913-495-9800 Website: mirrorlighting.com	<b>Specialties</b> Lighting	<b>Business Type</b> Other Other	<b>Join Date</b> 06/01/2009	<b>Projects Completed</b> Completed
<b>Mercier Electric</b> 410 3rd St. Yreka, CA Phone: 530-340-1692	<b>Specialties</b> Lighting	<b>Business Type</b> Contractor	<b>Join Date</b> 07/01/2009	<b>Projects Completed</b> 10
<b>J.W. Kerns, Inc.</b> 4360 Hwy #39 Klamath Falls, OR Phone: 541-864-4129 Website: www.jwkernsinc.com	<b>Specialties</b> Irrigation	<b>Business Type</b> Distributor	<b>Join Date</b> 09/18/2012	<b>Projects Completed</b> null
<b>Northridge Electric</b> 1279 2nd Street, Suite A Crescent City, CA Phone: 707-464-7790	<b>Specialties</b> Lighting	<b>Business Type</b> Contractor	<b>Join Date</b> 12/01/2008	<b>Projects Completed</b> Completed
<b>Jim Wilson Lighting &amp; Fixtures</b> 111 Hillside Drive Crescent City, CA Phone: 707-458-3429	<b>Specialties</b> Lighting	<b>Business Type</b> Distributor	<b>Join Date</b> 08/01/2008	<b>Projects Completed</b> Completed
<b>Frank's Heating &amp; Refrigeration</b> 250 Michigan Ave Crescent City, CA Phone: 707-464-8529 Website: bestheatinginfo.com	<b>Specialties</b> HVAC - evaporative HVAC - unitary Irrigation Motors and VFDs Other: Other Specialty	<b>Business Type</b> Contractor	<b>Join Date</b> 12/01/2008	<b>Projects Completed</b> 5
<b>Whipple Electric*</b> 1800 Eastside Rd. Etna, CA Phone: 530-598-5833	<b>Specialties</b> Irrigation Lighting Motors and VFDs	<b>Business Type</b> Contractor	<b>Join Date</b> 04/01/2010	<b>Projects Completed</b> 7
<b>HPS Electrical Apparatus</b> 3801 NW Stewart Parkway Roseburg, OR Phone: 541-673-3162 Website: hps-electric.com	<b>Specialties</b> Motors and VFDs	<b>Business Type</b> Distributor	<b>Join Date</b> 12/01/2008	<b>Projects Completed</b> Completed



## Appendix 5

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# California Program Evaluations

Pacific Power

## California 2013 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 2013 and the third party evaluator who completed the evaluation. Program evaluations are available for review at [www.pacificorp.com/es/dsm/california.html](http://www.pacificorp.com/es/dsm/california.html)

Program	Years Evaluated	Evaluator
Energy FinAnswer	2009-2011	Navigant Consulting, Inc.
FinAnswer Express	2009-2011	Navigant Consulting, Inc.

The third party evaluator’s recommendations and Company’s responses are provided in the below Tables:

Table 1  
Energy FinAnswer Evaluation Recommendations

Energy FinAnswer Program Evaluation Recommendations:	Pacific Power Action Plan:
<p><b>Include email in the marketing strategy.</b> Non-participants indicated that their preferred methods of learning about programs and opportunities from Pacific Power were email and phone. The program already sends mailings in the form of newsletters and bill inserts. Extending the campaign to customer email would provide an additional avenue to generate program participation leads. This may also be the most cost-effective method of directly reaching out to the rural California territory. Use of email in this manner should result in higher participation rates at lower cost.</p>	<p>“eBlasts” were added to the marketing strategy in 2013. eBlasts emailed to Pacific Power business customers included the following:</p> <ul style="list-style-type: none"> <li>• February 2013 – eBlast on linear fluorescent lighting upgrades</li> <li>• July 2013 – eBlast on reducing cooling costs</li> <li>• October 2013 - eBlast on food service equipment incentives</li> <li>• November 2013 – eBlast on improving heating system performance</li> </ul> <p>In addition, the company newsletter, Energy Connections, is distributed quarterly via email and includes articles on energy efficiency.</p>

<p><b>Energy FinAnswer Program Evaluation Recommendations:</b></p>	<p><b>Pacific Power Action Plan:</b></p>
<p><b>Do follow-up reviews with program participants.</b> This would provide Pacific Power a channel for further program communication, and help to mitigate other program-related issues. Within a year of measure installation and receipt of program rebates, Pacific Power should follow up to discuss satisfaction with the program/technology installed and to update customers on program and technology changes. Pacific Power should send short follow up emails to customers to touch base on their satisfaction with the program and recommend new ways to participate in the program. These actions could also help to mitigate issues regarding updated addresses, equipment mismatches, and lack of program awareness.</p>	<p>The evaluation plan has been revised to include customer surveys timed closer to project implementation.</p>
<p><b>Include energy and demand savings calculations in a spreadsheet format.</b> By providing this information in one consolidated location, future evaluation efforts will be more efficient and reduce the potential for comparing verified savings to incorrect or outdated project assumptions.</p> <ul style="list-style-type: none"> <li>» Although each project properly documented the reported energy and demand savings estimates, the absence of savings calculations (particularly for demand savings) reduces the transparency of reported savings, along with the efficiency of evaluation efforts. Providing both the input assumptions and savings calculation methodologies will ensure the comparability and accuracy of reported and evaluated savings and will reduce associated evaluation costs.</li> <li>» Include the clearly identified final Energy Savings table in project files for</li> </ul>	<p>Cost to benefit review has determined this to be a non-cost effective solution. Project information will continue to be included in detail within individual project files. Project documentation will be summarized in the Final inspection reports at project completion.</p>

<b>Energy FinAnswer Program Evaluation Recommendations:</b>	<b>Pacific Power Action Plan:</b>
<p>the evaluation. The data should include both baseline and current energy and demand usage as well as savings estimates. Utilizing consistent formats based on the FINAL numbers is important for all follow up activities, and will provide decision makers the key information needed to quickly assess the situation and take appropriate action relative to the inspections conducted. It is noted that the key elements are included in the documentation for each project, but it is often difficult to identify the final set of parameters used because the project files capture multiple changes/revisions to the application process.</p>	

Table 2  
FinAnswer Express Evaluation Recommendations

<b>Program Evaluation Recommendations:</b>	<b>Pacific Power Action Plan:</b>
<p><b>Do follow-up reviews with program participants.</b> During site visits, the Evaluation Team noted some sites in which customers had removed or replaced rebated lighting due to dissatisfaction. At other sites, customers inquired regarding new technologies available for rebates and whether there were any changes to the current program. Pacific Power should follow up to discuss satisfaction with the program/technology installed and to update customers on program and technology changes.</p>	<p>The evaluation plan has been revised to include customer surveys timed closer to project implementation.</p>
<p><b>Utilize email as a marketing strategy, and make a concerted effort to obtain email addresses for all participants, and (more generally) for as many customers as possible.</b> Non-participants indicated that their</p>	<p>“eBlasts” were added to the marketing strategy in 2013. eBlasts emailed to Pacific Power business customers included the following:</p> <ul style="list-style-type: none"> <li>• February 2013 – eBlast on linear fluorescent lighting upgrades</li> </ul>



<p><b>Program Evaluation Recommendations:</b></p> <p>three most preferred methods of learning about programs and opportunities from Pacific Power were: email, mail, and printed materials and brochures. However, only printed material and brochures were identified as a common way that non-participants became aware of these programs. Extending the campaign to customer email may provide an additional avenue to generate program participation leads and may also be the most cost-effective method of directly reaching out to the rural California territory.</p>	<p><b>Pacific Power Action Plan:</b></p> <ul style="list-style-type: none"> <li>• July 2013 – eBlast on reducing cooling costs</li> <li>• October 2013 - eBlast on food service equipment incentives</li> <li>• November 2013 – eBlast on improving heating system performance</li> </ul> <p>In addition, the company newsletter, Energy Connections, is distributed quarterly via email and includes articles on energy efficiency.</p>
<p><b>Develop deeper trade ally relationships.</b> Data indicates that only a few of the trade allies completed more than one project. Vendors are a critical program delivery mechanism for post-purchase incentive programs like FinAnswer Express. Pacific Power should nurture less active allies so they become more active players. When a larger group of trade allies take the time to market the program effectively, program savings will increase.</p>	<p>The evaluation report findings state that California had four ally participants in 2011, and ten in each of the previous two years.</p> <p>For the commercial measures, the Company added a new trade ally coordinator to the team. He continues to actively recruit and train trade allies in the California service territory. In 2013, eight (8) EEA trade allies complete at least one project, four of which completed more than one. The total project count for these eight allies was thirty-three (33).</p> <p>There are ten (10) trade allies who are being actively recruited to join the EEA that submitted more than one project in 2013, and another twelve (12) under recruitment who submitted just one project in 2013. Combined project count for allies under recruitment is forty-one (41).</p> <p>For the industrial/agricultural measures, seven trade allies had at least one project completed in 2013.</p>
<p><b>Modify reported operating hours in project files to specify lighting hours, specific holidays, and effects of seasonality. This will help clarify the analysis process and result in better estimates of actual savings.</b> The following modifications would clarify the analysis process and create less variation in</p>	

<b>Program Evaluation Recommendations:</b>	<b>Pacific Power Action Plan:</b>
<p>realization rates in future program cycles:</p> <ul style="list-style-type: none"> <li>○ Operation schedules should reflect <u>lighting schedules</u> for specific parts of the building, by lighting group. The hours of operation should specifically reflect the hours that lights are on in a certain schedule group since business hours don't always reflect lighting hours.</li> <li>○ Instead of asking whether the business is open for major holidays as a yes/no question, Pacific Power should consider asking customers the specific holidays in a year that <u>lights are not operational</u>. For example, a store could be closed for Thanksgiving but open on Christmas and New Year's Day.</li> <li>○ When listing the hours of operation, Pacific Power should reflect changes in operating hours due to <u>seasonality</u>.</li> </ul>	<p>The tool contains inputs for five different operating schedules. It contains inputs for lighting fixtures by location and operating schedule (to determine which one of the five is correct for this area).</p> <p>The lighting tool has been modified to ask how many holidays the business is closed and lighting is not operational.</p> <p>The lighting tool has been modified to include capability to account for seasonal differences in lighting operating hours.</p>