

PacifiCorp's Planned Changes to Home Energy Savings

PacifiCorp (the "Company") is planning to make modifications to the Home Energy Savings residential customer energy efficiency program, which is offered through Schedule D-118. The changes are intended to increase overall participation and energy savings achieved through the program, increase the comprehensiveness of the program, and incorporate changing codes and standards. The planned program changes are detailed in Exhibit 1.

Consistent with the change process for the Home Energy Savings program documented in Application No. ("A.") 07-07-011¹, notice of the changes will be posted on the program Web site² 45 days prior to implementation. PacifiCorp plans to post the changes on the program Web site on February 1, 2010 in order to allow implementation on March 18, 2010. These dates are approximate and could change based on feedback from parties. As a number of the program changes described herein are driven by changes in codes and/or standards which take effect January 1, 2010, it is important for these changes to become effective as close to this date as possible. PacifiCorp is requesting comments on the planned changes be received by January 26, 2010.

Background

The Home Energy Savings program is available to residential customers in PacifiCorp's California service territory and offers incentives for prescriptive measures which improve energy efficiency. The current program offers incentives for energy efficient appliances, lighting, heating and air conditioning, and new homes packages. Incentives are available for both existing homes and new homes. The Home Energy Savings program was first approved by the California Public Utilities Commission in 2008³.

Description of Planned Home Energy Savings Changes

The Home Energy Savings program modifications are consistent with the white paper entitled *Long-term energy efficiency strategic plan for PacifiCorp's service territory in California*, which was provided to the Energy Division and the Division of Ratepayer Advocates ("DRA") on February 27, 2009 and is attached herewith as Exhibit 2. Sections of the strategic plan which relate to the Home Energy Savings program changes are shown in blue text in Exhibit 2.⁴

The program modifications are summarized below with complete details provided in the revised Home Energy Savings incentive tables, which are provided in Exhibit 1⁵.

¹ Refer to Exhibit J of A.07-07-011.

² www.pacificpower.net/casaver

³ Decision No. 08-01-041 dated January 31, 2008.

⁴ Changes to the FinAnswer Express program which are consistent with the strategic plan and became effective January 1, 2010, are shown in red text in Exhibit 2. The Company notified the Energy Division and DRA of these changes on October 23, 2009.

⁵ Exhibit 1 contains the Home Energy Savings program incentive tables, which were provided as part of Exhibit J in A.07-07-011. The incentive tables are marked to show the planned changes. For reference, the current program and incentive tables can be found on the program Web site at www.pacificpower.net/casaver.

Changes to Existing Measures

Appliances and Lighting

Clothes Washers

Instead of the one-tier incentive offered in the existing program, the Company plans to offer two incentive tiers for clothes washers in 2010 and 2011, Consortium for Energy Efficiency (CEE) Tier 2 and CEE Tier 3. Using the CEE tiers as the threshold for incentives will enable program standards to remain current as CEE specifications evolve. Savings will be reported based on the modified energy factor (MEF) level, water factor (WF) and water heater and dryer fuel for each participating customer.

Clothes Washer Recycling

The following language was included on page 4 of Exhibit J of A.07-07-011: “Clothes washer recycling will be offered to customers who have operable or inoperable washing machines and who have purchased a replacement Energy Star qualified replacement unit through the Program.” The Company plans to replace this language as follows: “Incentive offered to the retailer that recycles a clothes washer associated with the purchase of a new qualified clothes washer.” This change allows the retailer to receive an incentive for recycling a clothes washer that was replaced by a qualified new clothes washer.

Dishwashers

Effective January 1, 2010, dishwasher energy efficiency standards changed from a 0.58 energy factor (EF) to an annual consumption standard of 355kWh per year and 6.5 gallons of water per cycle (see Energy Independence and Security Act of 2007, HR6-73, sec 311). The Company will offer incentives for units meeting the efficiency requirements of CEE Tier 1, which exceeds the new standard. Using the CEE tiers as the threshold for incentives will allow program standards to remain current as CEE specifications evolve.

Electric Water Heaters

The Company will offer incentives for units meeting the updated specifications of Title 24 (California’s energy efficiency standards) 5.2.2, Table 5-2. Using Title 24 standards as a threshold for incentives will allow program standards to remain current as Title 24 standards evolve.

Compact Fluorescent Lamps (CFLs)

The Home Energy Savings program currently delivers CFLs to end-use customers through a year-round markdown and buy-down model. The program currently offers incentives of up to \$1.35 per bulb to the manufacturer and/or retail distributor for the purpose of discounting CFLs to PacifiCorp’s customers at retail locations. To help encourage the adoption of CFLs, a not-to-exceed retail price of \$1.49 per bulb was established.

The Company plans to expand the current CFL program to include spiral and specialty bulbs. Spiral bulbs are defined as a bare CFL (T2, T3, T4 twist) of wattages less than 26 watts. Specialty CFLs are defined as screw-based CFLs including, but not limited to, A-lamps,

candelabras, G-lamps (globes), reflectors (flood), PAR lamps, torpedoes, dimmable CFLs, three-way spirals and spirals greater than 26 watts; any other CFL that falls outside the definition of spiral; and various CFL products that have been specially created to replace special-purpose incandescent bulbs.

This is consistent with the Company’s long-term strategic plan for lighting in California. To facilitate this, maximum incentives will change from \$1.35 per bulb to a range of \$1.50 to \$3.50 per bulb. The not-to-exceed retail price will change from \$1.49 per bulb to a range between \$2.50 and \$14.00 per bulb. In determining CFL incentive amounts, PacifiCorp will consider bulb type, original retail cost, cost of incandescent equivalent, pack size, and negotiations with retail or manufacturer partners. Deemed savings for CFLs will change from a per bulb average of 21.9 kWh/year to a “per wattage” savings based on the 2008 version of the Database for Energy Efficient Resources (DEER). Eligible CFLs must be ENERGY STAR qualified, intended for residential application, and intended as a direct replacement for an incandescent bulb.

Table 1 below provides the planned maximum incentives and not-to-exceed retail price of CFLs offered through the Home Energy Savings program.

Table 1 – Planned CFL Maximum Incentive and Not-to-Exceed Price (per CFL)

Description	Maximum Incentive	Not-To-Exceed Retail Price
Bare Spiral	\$1.50	\$2.50
Globe	\$1.75	\$8.00
Reflector	\$2.25	\$8.00
3-Way	\$2.25	\$8.00
A-Lamp	\$1.75	\$8.00
CFL Candelabra	\$1.75	\$6.00
Cold Cathode	\$2.25	\$6.00
Daylight (4500+ Kelvin)	\$1.75	\$4.00
Dimmable	\$3.50	\$14.00
Outdoor Lamp	\$2.25	\$8.00

The program will continue to deliver on the following commitments for CFLs:

1. Assurance that CFLs do not leave PacifiCorp’s California service territory – the Company will incorporate into the contracts executed with vendors who will carry CFLs a provision that limits the sale of promotional CFLs to vendors or retail locations within PacifiCorp’s California service territory.
2. Education – the Company will use point of purchase materials for CFLs that include information regarding energy cost savings and environmental benefits. When feasible, information about energy cost savings and environmental benefits shall be available at every location where CFLs are distributed under the PacifiCorp customer-funded programs.

Heating Ventilation and Air Conditioning (HVAC) Equipment and Services

Central Air Conditioner and Heat Pump Tune-Up

This measure was originally designed for both heat pumps and central air conditioners with the savings weighted based on expected participation. Through operating the program, the Company has learned there are more heat pumps in the market than central air conditioners. The Company intends to split this measure into two by equipment type. In addition, HVAC equipment tune-ups are included for program comprehensiveness, but are generally not cost effective measures; the Company plans to reduce incentives offered for these measures.

Duct Sealing

Effective January 1, 2010, California Title 24 requires sealing the duct work with every change to or addition of HVAC equipment in residential homes. All new construction or additions to existing buildings require duct sealing by code as well (§152(b) 1D, §152(b) 1E, and §152(b) 1F). As a result, the Company intends to eliminate this measure from the program.

Evaporative Cooler

The existing program offers an incentive for permanently-installed evaporative coolers. Based on program experience, the Company has learned these units are most often purchased as an appliance and self-installed. Accordingly, the Company intends to eliminate the contractor installation incentive.

New Homes

Changes to California Title 24 that took effect on January 1, 2010 require modifications to the new homes measures offered through the Home Energy Savings program. For electrically-heated homes, the Company plans to offer incentives for improved equipment and advanced framing techniques to improve the shell of new homes. Savings reporting methodology is based on analysis developed using the REM/Design v. 12.71 software tool, and is weighted to reflect population distribution between the Company's two climate zones: 69 percent zone 1 and 31 percent zone 16. The builder incentive is \$1,500 per home for this new package of measures. The incentive is increased from the current level to reflect higher savings acquired through the revised package of measures.

The Company intends to discontinue offering the new homes package for gas-heated homes because natural gas service is not widely available in PacifiCorp's California service territory.

New Measures

Appliances and Lighting

Room Air Conditioner

PacifiCorp plans to add an Energy Star room air conditioner measure to increase the comprehensiveness of the program. Table 2 below presents the per unit savings of this measure.

Table 2 – Room Air Conditioner Savings

Conventional Unit Base Use	ENERGY STAR Unit Use	Cooling Capacity (Btu/hr)	Gross Unit kWh Savings (kWh/yr)	Net to Gross	Net Unit kWh Savings (kWh/yr)
889	806	10,000	83	0.8	66.4

Source: http://www.energystar.gov/ia/business/bulk_purchasing/bpsavings_calc/CalculatorConsumerRoomAC.xls

Portable Evaporative Cooler

Program experience shows portable evaporative coolers are readily available as an alternative to room air conditioners. Accordingly, the Company plans to add a portable evaporative cooler measure. Table 3 below provides the savings achieved through the use of portable evaporative coolers.

Table 3 – Portable Evaporative Cooler

Measure Name	Annual Savings @ Site (kWh/yr)	Net to Gross	Net kWh Savings/ Unit
Evaporative cooler (portable)	203	0.8	162

HVAC Equipment and Services

Market research indicates that heat pumps are prevalent in our California service territory. Below are descriptions of several heat pump measures the Company intends to add to the program.

Heat Pump Upgrade

The heat pump upgrade measure provides incentives for the replacement of older, less-efficient heat pumps with new high-efficiency units with ratings of 8.5 heating seasonal performance factor (HSPF) or higher. In the future, the Company intends to add an additional higher-tier heat pump measure of 9.0 HSPF or higher. Table 4 presents the savings information for this measure.

Table 4 – Heat Pump Upgrade Savings

Measure Name	Annual Savings @ Site (kWh/yr)	Net to Gross	Net kWh Savings/ Unit
Heat Pump Upgrade from 7.7 HSPF to 8.5 HSPF	2,179	0.8	1,743

Source: Northwest Power and Conservation Council/Regional Technical Forum

Heat Pump Conversion

The heat pump conversion measure promotes replacement of existing electric heating systems (electric zonal or electric forced air furnace (“EFAF”)) with new high-efficiency units of 8.5 HSPF or higher. In the future, the Company plans to add an additional higher-tier heat pump

measure of 9.0 HSPF or higher. Table 5 below presents the per unit savings information for this measure.

Table 5 – Heat Pump Conversion Savings

Measure	Annual Savings @ Site (kWh/yr)	Net to Gross	Net kWh Savings/ Unit
Heat Pump Conversion from EFAF to 8.5 HSPF	4,249	0.8	3,399

Source: REM Design v12.71

Ductless Heat Pump – Single Head

The single-head ductless heat pump measure is designed to upgrade existing zonal electric resistance heat in main common areas with a high performance unit rated at least 9.0 HSPF with a 16 seasonal energy efficiency ratio (SEER). These ratings represent an accessible starting point for this measure. In a future round of changes, the Company intends to increase the minimum efficiency requirements for this measure and/or add a higher tier. Table 6 below presents the savings per unit of this measure.

Table 6 – Ductless Heat Pump – Single Head

Measure	Annual Savings @ Site (kWh/yr)	Net to Gross	Net kWh Savings/ Unit
Ductless Heat Pump – Single Head	4,348	0.8	3,478

Source: REM Design v12.71

Ductless Heat Pump – Multi-Head

The multiple-head ductless heat pump measure is designed to condition the whole house with a multiple head unit. Savings are derived from upgrading code level zonal electric resistance heat with a high-performance unit rated at least 9.0 HSPF with a 16 SEER. Table 7 presents the savings associated with this measure.

Table 7 – Ductless Heat Pump – Multi-Head

Measure	Annual Savings @ Site (kWh/yr)	Net to Gross	Net kWh Savings/ Unit
Ductless Heat Pump – Multi-head	6,000	0.8	4,800

Source: REM Design v 12.71

The Company has revised program participation projections based on experience to date and reflecting the planned modifications discussed above. Table 8 below provides a summary of the current Home Energy Savings program as filed in 2007 compared to the updated estimated program results.

Table 8 – Summary of Existing and Modified Home Energy Savings Program

	(1) Existing Program (years 1-4 as filed in 2007)	(2) 2008 Results (program approved 4/24/2008)	(3) Projection (existing program)	(4) Proposed Program	(5) Proposed Program	(6) Proposed program (2008 actuals + projections for 2009-2011) (2)+(3)+(4)+(5)	(7) % Change over Existing Program
	2008-2011	2008	2009	2010	2011	2008-2011	2008-2011
Projected Expenditures	\$ 2,328,128	\$ 75,292	\$ 334,182	\$ 450,830	\$ 504,071	\$ 1,364,375	-41%
Projected KWh/yr Savings (gross savings at customer site)	12,767,814	307,183	1,741,506	2,826,033	2,931,881	7,806,603	-39%
Projected KWh/yr Savings (net savings at customer site)	7,767,834	215,348	1,067,581	1,712,492	1,799,768	4,795,189	-38%

Additions assume a 3/18/2010 effective date for the proposed changes.

Cost Effectiveness

The Home Energy Savings program is expected to remain cost effective with the planned changes. Provided as Exhibit 3 is the cost-effectiveness analysis for the program reflecting the program changes prepared using version PG&E 2010-12 v1g of the Pacific Gas & Electric E3 calculator.

The Home Energy Savings program will continue to be funded through Schedule S-191, Surcharge to Fund Public Purpose Programs, and the modified program fits within the overall 4-year all-programs budget of \$4,788,223 for energy efficiency programs approved in 2008⁶.

Exhibits Provided

Exhibit 1 – Home Energy Savings incentive tables – with changes from the current program marked.

Exhibit 2 – PacifiCorp long term energy efficiency strategic plan white paper – with sections applicable to changes described herein marked in blue text.

Exhibit 3 – Cost effectiveness analysis.

⁶ Decision No. 08-01-041.