

PacifiCorp

2009 Annual Review of DSM Programs - Washington

PacifiCorp Demand Side Management Team
2/12/2010

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Introduction

PacifiCorp works with its customers to reduce the need for investment in supply side resources and infrastructure by reducing energy and peak consumption through cost-effective energy efficiency programs.

PacifiCorp currently offers six energy efficiency programs approved by the Washington Utilities and Transportation Commission (“Commission”) in Washington, with expenditures associated with these programs recovered through the System Benefits Charge, Schedule 191.

This report provides details on program results and activities, expenditures and Schedule 191 revenue for the performance period from January 1, 2009 through December 31, 2009. Top-line results are summarized in Table 1 below.

Table 1¹

2009 Total Portfolio Performance

Total Revenues Collected	\$ 5,170,859
Expenditures (Includes NEEA)	\$ 6,666,181
kWh/Yr Savings (Gross - At Gen, Does not include NEEA Savings)	41,997,602
aMW Savings (Gross - At Gen)	4.79

As shown in Table 1 above, in 2009, PacifiCorp (the “Company”) acquired resources through its energy efficiency program activity totaling 41,997,602 kWh/year or 4.79 aMW in Washington (at generation).

¹ To remain consistent with the Northwest Power and Conservation Council’s regional power plan, the savings values in this table are shown prior to any net-to-gross adjustment. The values at generation include line losses between the customer site and the generation source. The Company’s assumed line losses by sector are 11.031% for residential, 10.834% for commercial and 9.137% for industrial. These values are based on the Company’s 2001 Transmission and Distribution Loss Study by Management Applications Consulting published in June 2004.

Advisory Group Meetings and Communications

PacifiCorp established the Washington Demand Side Management Advisory Group (“DSM Advisory Group”) in 2000. The group includes representatives from a variety of constituent organizations and represents the interests of various customer segments. PacifiCorp met and/or communicated with the DSM Advisory Group on several occasions during the year. Meeting dates and subject matter are as follows:

February 25, 2009 – Email to DSM Advisory Group outlining specific changes to the Home Energy Savings program. This was a follow up to the October 7, 2008 DSM Advisory Group discussion about incorporation of new home measures into the Home Energy Savings program and elimination of the Energy Star New Homes program in Washington. The primary changes included:

- Incorporating a Builder Option Package (primary elements from Energy Star New Homes Program) and addition of stand-alone measures for new homes,
- Addition of heat pump equipment and services,
- Modifications to existing measures, including: changes to certain measure incentives and incentive qualifications, expanding CFL offerings to include specialty bulbs and year-round promotions, revising unit participation projections, updating savings to reflect current Regional Technical Forum (RTF) savings, and moving to fuel specific savings reporting for certain measures.

The email included a request for comments on the proposed changes.

March 25, 2009 – Email to DSM Advisory Group to finalize communications on the Home Energy Savings changes and let the group know of the effective dates for the changes. Based on input from commission staff, the Company implemented changes that resulted in an improved offer to the customer immediately. For changes that reduced the offer, the Company provided a 45-day notification on the program Web site according to the provisions established in the program filing.

May 12, 2009 – Email to DSM Advisory Group informing them of the Company’s plan to file to end the Energy Star New Homes program as described above and providing them with the link to the information on the new homes offering included in the Home Energy Savings program.

June 1, 2009 – Email to DSM Advisory Group providing the draft filing for proposed Energy FinAnswer and FinAnswer Express program changes. The email included a request for comments on the proposed changes.

June 17, 2009 – DSM Advisory Group teleconference to discuss the draft filing for proposed Energy FinAnswer and FinAnswer Express program changes.

June 24, 2009 – Email to DSM Advisory Group summarizing key issues discussed during the June 17, 2009 teleconference.

July 15, 2009 – Email to DSM Advisory Group providing the draft true-up filing for a proposed increase in the System Benefits Charge and requesting comments.

September 17, 2009 – Email providing the schedule for three meetings for I-937 public input.

(Note: I 937 meetings and activities are covered in the Major Trends and Activities section in 2009 Performance.)

DSM Filings

The Company made several filings with the Commission regarding DSM during calendar year 2009. The dates of the filings with descriptions are included below.

February 13, 2009 - PacifiCorp Washington DSM Annual report. Summary of PacifiCorp Washington DSM results for 2008

PacifiCorp provided its annual review of DSM results in Washington for calendar year 2008.

May 15, 2009 – Advice No. 09-02 Cancellation of Tariff Schedule No. 108 – Energy Star New Homes Incentive Program

PacifiCorp requested cancellation of the Energy Star New Homes program in Washington. The program had failed to meet initial performance projections between 2005 and 2007. Potential modifications to the program had been discussed with the DSM Advisory Group in 2007 and 2008. Key elements of the Energy Star New Homes program were incorporated into the Home Energy Savings program (as noted in advisory group communications detailed above). Those changes became effective on April 1, 2009. This request was to cancel Schedule 108 to reflect the program termination. The request was approved on June 11, 2009 and became effective on June 17, 2009.

August 13, 2009 - PacifiCorp Washington DSM Semi-Annual report.

PacifiCorp provided its semi-annual review of the System Benefits Charge account for January 1, 2009 – June 30, 2009.

September 18, 2009 – Advice No. 09-04 Proposed Changes to Schedule 115 and Schedule 125 (FinAnswer Express and Energy FinAnswer programs)

PacifiCorp requested modifications to Schedule 115 (FinAnswer Express program) and Schedule 125 (Energy FinAnswer program).

The primary changes to Schedule 115 – FinAnswer Express program included:

- Addition of new measure categories (Food service, Appliances, Irrigation, Dairy/Farm Equipment, and Compressed Air)
- Addition of new measures to existing categories (Lighting and Lighting Controls, Motors, HVAC, Building Envelope, and Network PC Power Management)
- Modifications to incentive levels for certain measures (mainly lighting and the custom incentive)
- Addition of Schedules 33, 47T, and 53 to the list of eligible rate schedules

The primary changes to Schedule 125 – Energy FinAnswer program included:

- An increase in incentive levels from 12 cents/kWh + \$50/KW with a cap of 50% of project costs to 15 cents/kWh + \$50/KW with a Cap of 60% of project costs².
- Removal of 75% lighting savings cap for design assistance projects for new construction/major renovation
- Addition of Schedules 33 and 47T to the list of eligible rate schedules
- Addition to definition of Energy Efficiency Measure (EEM) Cost to better coordinate with incentives offered by natural gas companies

The changes were approved by the Commission on October 29, 2009 and became effective on October 30, 2009.

September 18, 2009 – Advice No. 09-05 Proposed Increase to Schedule 191 – System Benefit Charge Adjustment

PacifiCorp requested an increase in the System Benefit Charge from approximately \$4.5 million (1.7% of revenue) on an annual basis to approximately \$8.8 million annually (3.5% of revenue). The adjustment was requested to more closely match the rate of energy efficiency acquisitions, to reduce the uncollected balance in the Schedule 191 balancing account, and to recover increased expenditures for the Energy FinAnswer and FinAnswer Express programs driven by the proposed changes in Advice 09-04.

The filing was approved by the Commission on October 29, 2009 with an effective date of October 30, 2009.

December 31, 2009 – ten-year conservation potential in compliance with WAC 480-109

PacifiCorp projected its ten-year conservation potential for the period of 2010 through 2019. The projection was 47.2 average megawatts.

² The incentive caps do not apply to new construction design assistance projects where the whole building is at least ten percent better than the applicable energy code.

2009 Performance and Activity

In 2009, PacifiCorp achieved total savings of **41,997,602 kWh/year or 4.79 aMW** in the State of Washington (at generation). Table 1 below shows savings by program and by sector³.

Table 2 – 2009 Performance⁴

**Washington System Benefits
Charge Report for 2009**

Program	Units	kWh/Yr Savings (at site)	kWh/Yr Savings (at generator)	aMW Savings (at gen)	Systems Benefits Charge Expenditures
Low Income Weatherization (114)	131	241,040	267,629	0.03	\$ 527,436.65
Energy Education in Schools (113)	4,158	3,332,335	3,699,925	0.42	\$ 443,706.66
Refrigerator Recycling (107)	2,347	3,378,388	3,751,058	0.43	\$ 349,572.93
Home Energy Savings (118)	26,920	8,611,901	9,561,880	1.09	\$ 1,215,051.12
Energy Star New Homes (108)	0	0	0	0.00	\$ 8,659.06
CFL Adjustment (See Note 5 Below)		-1,005,564	-1,116,488	-0.13	\$ -
Total Residential	33,556	14,558,100	16,164,004	1.85	\$ 2,544,426.42
Energy FinAnswer (125)	4	1,189,842	1,318,749	0.15	\$ 284,447.22
FinAnswer Express (115)	109	3,871,710	4,291,171	0.49	\$ 647,017.50
Total Commercial	113	5,061,552	5,609,921	0.64	\$ 931,464.72
Energy FinAnswer (125)	28	17,104,878	18,667,751	2.13	\$ 2,446,425.60
FinAnswer Express (115)	30	1,425,664	1,555,927	0.18	\$ 200,929.52
Total Industrial	58	18,530,542	20,223,678	2.31	\$ 2,647,355.12
Total		38,150,194	41,997,602	4.79	\$ 6,123,246.26
Additional residential expenditures for administration related to prior programs					\$ 1,473.78
Northwest Energy Efficiency Alliance expenditures					\$ 541,461.38
Total System Benefits Charge expenditures					\$ 6,666,181.42

³ To remain consistent with the Northwest Power and Conservation Council's regional power plan, the savings values in this table are shown prior to any net-to-gross adjustment. The values at generation include line losses between the customer site and the generation source. The Company's assumed line losses by sector are 11.031% for residential, 10.834% for commercial and 9.137% for industrial. These values are based on the Company's 2001 Transmission and Distribution Loss Study by Management Applications Consulting published in June 2004.

⁴ CFL Adjustment: The Energy Education Program savings reflect 1,005,564 kWh of savings related to installation of additional CFLs that are purchased by participants. This amount is adjusted out of the Residential portfolio results to avoid potentially double counting the savings in both the Energy Education program and Home Energy Savings program.

Major Trends and Activities

Program Changes:

PacifiCorp expanded the Home Energy Savings program and eliminated one residential program during the year as part of transitioning the new homes measures into the Home Energy Savings program.

The Company's proposed changes to Commercial and Industrial programs – FinAnswer Express (Schedule 115) and Energy FinAnswer (Schedule 125) – were approved by the Commission in October 2009. Details of the changes are provided in the program discussion section and overview of filings.

Changes to System Benefit Charge:

PacifiCorp's requested increase in the System Benefit Charge from approximately \$4.5 million (1.7% of revenue) on an annual basis to approximately \$8.8 million annually (3.5% of revenue) was approved by the Commission in October 2009. The increase will support the higher level of resource acquisition.

Initiative Measure Number 937 (I-937):

In 2006, voters passed Ballot Initiative Measure Number 937 that establishes renewable energy and energy efficiency guidelines for electric utilities serving customers in the State of Washington. I-937 requires that PacifiCorp (and other utilities) establish a ten-year electric conservation potential and a two-year target (biennial target) for efficiency acquisitions. Failure to meet the biennial target results in a penalty of \$50/MWh to the Company. I-937 directs the Company to use either the allocated share of the most recent regional power plan from the Northwest Power and Conservation Council or Company specific Integrated Resource Plans as the basis for setting its conservation potential and target. The Company worked with the DSM Advisory group and other interested parties to develop a ten-year energy efficiency potential estimate for 2010-2019 and establish a two-year acquisition target for 2010-2011.

A summary of the meetings held and the topics discussed is provided below.

Overview - Commission Staff and Public Involvement

Date	Summary
10/15/2009	Initial meeting with the DSM advisory group. Declaration and rationale provided as to the use of the Company's conservation potential assessment and 2008 IRP as the source for filing the Company's ten-year conservation forecast and biennial target. Outlined the process and analysis planned for this filing, soliciting

	comments on the process and planned work.
11/18/2009	Provided initial analysis results and reviewed the preliminary ten-year potential and biennial target figures with the DSM advisory group.
12/8/2009	Commission staff met with the Company and Cadmus Group, Inc. to review and become better acquainted with the conservation potential assessment, the foundational document used in the development of the 2008 IRP.
12/10/2009	Reviewed the preliminary draft report with the DSM advisory group and other interested parties, soliciting comments on areas missing and level of detail.
12/21/2009	Company and Council met via teleconference to discuss the methodology for the 10% adder as well as the Council's market price adder.
12/22/2009	Following the incorporation of feedback received from the December 10 meeting, reviewed the second draft of the report with the DSM advisory group and other interested parties, again soliciting feedback on the current report.
12/30/2009	Provided Company analysis via e-mail on the 10% adder (Regional Act Credit) to the DSM advisory group and other interested parties, requested feedback on the analysis and results.
12/31/2009	As required under WAC 480-109-010(1) provided the Company's initial ten-year conservation potential via e-mail to the DSM advisory group and other interested parties (Commission records center also received a copy).
1/15/2010	Company contacted the DSM advisory group and other interested parties to determine interest in another meeting to address any outstanding questions. Parties agreed that due to schedules, another meeting was not needed at this time.

Program Evaluations:

In October, 2009, the Company initiated process and impact evaluations for Home Energy Savings, See Ya Later Refrigerator, Energy FinAnswer and FinAnswer Express programs in Washington for program years 2005 – 2008. The draft results of these evaluations are expected to be available during the second quarter of 2010.

Residential Energy Efficiency Programs and Activity

Home Energy Savings Incentive Program (Schedule 118)

The Home Energy Saving program was first approved in 2006 and provides a broad framework to deliver incentives for more efficient products and services for Washington residential customers with a new or existing home, multi-family unit or manufactured home. The program is delivered through a third party administrator hired by the Company. Schedule 118 and the program web site at <http://www.homeenergysavings.net/> operate in tandem to inform customers and contractors of the offerings and qualifications for incentives.

Measures eligible for incentives include clothes washers, clothes washer recycling, refrigerators, water heaters, dishwashers, lighting (both compact fluorescent lamps (“CFL”)s and fixtures), heating and cooling equipment and services, insulation, windows and miscellaneous equipment such as ceiling fans. In addition, the program includes a Builder Option Package as well as stand-alone measures for new homes.

Incentives are provided in two ways: post-purchase delivery to the customer for the majority of measures and through a manufacturer buy-down for CFLs. Buy-downs result in lower retail prices for customers at the point of purchase as opposed to post-purchase incentives that customers must submit an application to receive.

Program results for 2009 are provided in the Table 3 below.

Table 3

2009 Home Energy Savings Program Performance

kWh/Yr Savings 2009 (Gross - At Gen)	9,561,880
Expenditures	\$ 1,215,051
Incentives Paid	\$ 894,984

2009 Program Performance:

Details of 2009 measure level participation and savings are provided on the following table.

Table 4
2009 Home Energy Savings Measure Performance

Home Energy Savings Measures	Unit Measure	# of Units	Participants	kWh/Yr Savings (Gross - At Site)
Ceiling Fans	Units	31	14	3,317
Clothes Washer-Tier One	Units	263	263	69,764
Clothes Washer-Tier Two	Units	1,711	1,711	479,467
Clothes Washer Recycle	Units	0	0	0
Dishwasher	Units	667	667	27,302
Electric Water Heater	Units	214	214	19,410
Evaporative Cooler	Units	2	2	1,392
Fixtures	Fixtures	128	49	11,776
Refrigerator	Units	696	696	67,860
Room AC New Purchase	Units	40	40	3,660
Room AC Recycle	Units	2	2	412
Insulation: Attic	Sq Feet	448,102	372	326,347
Insulation: Floor	Sq Feet	198,138	180	188,003
Insulation: Wall	Sq Feet	113,950	128	105,612
Windows	Sq Feet	57,277	401	50,566
AC/Heat Pump Tune-Up	Projects	2	2	296
Central AC Install	Units	0	0	0
CAC Sizing	Units	3	3	432
Central AC Equipment	Units	8	8	1,640
Duct Sealing - Electric	Projects	5	5	3,296
Duct Sealing - Gas	Projects	2	2	80
Heat Pump Controls and Commissioning	Units	2	2	1,883
Heat Pump Conversion	Units	27	27	139,450
Heat Pump Upgrade	Projects	22	22	32,859
Central AC w/install & sizing-New Construction	Projects	0	0	0
CFLs-New Construction	Projects	0	0	0
Duct Sealing-Electric-New Construction	Projects	0	0	0
Dishwasher-New Construction	Units	0	0	0
Energy Star BOP Bundle (HP)-New Construction	Projects	0	0	0
Heat Pump Best Practice Installation-New Construction	Projects	0	0	0
Heat Pump-New Construction	Projects	0	0	0
Insulation - Attic-New Construction	Sq Feet	0	0	0
RF-New Construction	Units	0	0	0
Windows-New Construction	Sq Feet	0	0	0
CFLs	Bulbs	221,102	22,110	7,077,078
Totals		1,042,394	26,920	8,611,901
kWh/Yr Savings at Generation				9,561,880

Program Changes:

Several program changes were implemented during 2009. The primary changes included:

- Incorporating Builder Option Package (primary elements from Energy Star New Homes Program) and addition of stand-alone measures for new homes,
- Addition of heat pump equipment and services,
- Modifications to existing measures, including changes to certain measure incentives and incentive qualifications, expanding CFL offerings to include specialty bulbs and year-round promotions, revising unit participation projections, updating savings to reflect current Regional Technical Forum (RTF) savings, and moving to fuel specific savings reporting for certain measures.

The modifications were previewed with the DSM Advisory group at the October 7, 2008 meeting. The specific modifications were emailed to DSM Advisory Group on February 25, 2009 with a request for comments. Based on input from Commission staff, the Company implemented changes that resulted in an improved offer to the customer immediately. These changes were effective April 1, 2009. For changes that reduced the offer, the Company provided a 45-day notification on the program Web site according to the provisions established in the program filing. These changes included a reduction in incentives for insulation and evaporative cooler measures and were effective May 23, 2009.

Program Evaluations:

In October, 2009, the Company initiated process and impact evaluations for the Home Energy Savings Incentive Program for program years 2006 – 2008. The draft results of these evaluations are expected to be available during the second quarter of 2010.

Refrigerator Recycling (Schedule 107)

This program, operated as the See Ya Later Refrigerator program, was first approved effective April 1, 2005. This program aims to decrease residential refrigeration loads by reducing the number of inefficient secondary and primary refrigerator and freezer models in operation. With this program, the Company offers all residential customers in Washington the opportunity to receive a \$30 incentive (by check mailed within 30 days after collection) in exchange for turning in their old but working refrigerators and/or freezers for recycling. Each customer can recycle up to two units, refrigerators and/or freezers, per household. In addition, a kit with instant energy-saving measures is provided to each participating customer.

Table 5

2009 See Ya Later Refrigerator Program Performance

kWh Savings 2009 (Gross - At Gen)	3,751,058
Expenditures	\$ 349,573
Incentives Paid	\$ 70,620

Details on participation and savings are provided in the table below.

Table 6

Gross Per Unit Savings (kWh/Year)

Refrigerator	1,250
Freezer	1,853
Kits	72

See Ya Later Refrigerator 2009 Results

Washington	
	kWh/Yr
Count	Savings (at Site)
Refrigerator Count	1,890
Refrigerator Savings (kWh/Yr)	2,362,500
Freezer Count	464
Freezer Savings (kWh/Yr)	859,792
Kit Count	2,168
Kit Savings (kWh/Yr)	156,096
Total Count (Refr. + Freezers)	2,354
Total Savings (kWh/Yr at Site)	3,378,388
Total Savings (kWh/Yr at Gen)	3,751,058
Total Expenditures	\$ 349,572.93
Total Cash Incentives	\$ 70,620.00

In 2009, 2,354 units were recycled (80% refrigerators and 20% freezers) by 2,168 households. According to the program delivery vendor, JACO Environmental, the program recycled more than 145 tons of steel, 4.5 tons of aluminum and copper, 23 tons of plastics and prevented landfill deposits that would cover an entire football field more than two and a half feet deep. In addition, the greenhouse gases (CFCs) collected and destroyed during recycling equates to approximately 5 tons per unit, equivalent to the annual output of the average car. Finally, the average age of the units recycled was 27 years with consumption approximately three times more than units purchased today.

Program Evaluations:

In October, 2009, the Company initiated process and impact evaluations for the See Ya Later Refrigerator Program for program years 2005 – 2008. The draft results of these evaluations are expected to be available during the second quarter of 2010.

Low Income Weatherization (Schedule 114)

PacifiCorp partners with three local non-profit agencies, Blue Mountain Action Council in Walla Walla, Northwest Community Action Center in Toppenish and Opportunities Industrialization Center of Washington in Yakima to provide weatherization services to income qualifying households throughout its Washington service area. The leveraging of PacifiCorp funding along with Washington MatchMaker Program funds allows the agencies to provide these energy efficiency services at no cost to participating customers. The Company provides rebates to partnering agencies for 50% of the cost of services while MatchMaker funds are available, and covers 100% of costs when these state funds are depleted. The program was revised through a tariff change effective March 1, 2009. The changes include an increase in rebates on eligible repairs, the elimination of a cap per home for administrative cost reimbursements and the elimination of the rebate on an energy education component. Participants qualify whether they are homeowners or renters residing in single-family homes, manufactured homes or apartments. Over 6,600 homes have been completed since the program began in the mid-1980s.

Table 7

Low Income Weatherization Performance - Washington	
kWh/Yr Savings (at Site)	241,040
kWh/Yr Savings (at Gen)	267,629
Expenditures - Total	\$ 527,437
Participation - Total # of Completed/Treated Homes	131
Number of Homes Receiving Specific Measures	
Ceiling Insulation	101
Floor Insulation	95
Wall Insulation	38
Replacement Windows	20
Storm Windows	-
Duct Insulation/Sealing	23
Insulated Doors	9
Attic Ventilation	46
Infiltration	109
Water Pipe Insulation/Sealing	45
Water Heater Repair/Replacement	18
Fawcet Aerators	79
Showerheads	39
Programmable Thermostats	9
Furnace Repair/Tune-up	22
Furnace Replacement	-
Compact Fluorescent Light bulbs	108
Replacement Refrigerators	24
Home Repairs	27

Energy Education in Schools (Schedule 113)

The energy education curriculum was developed for sixth grade classrooms by three partnering agencies (Blue Mountain Action Council in Walla Walla, Northwest Community Action Center in Toppenish and Opportunities Industrialization Center of Washington in Yakima). The agencies employ certified teachers to work with school administrators, teachers and students. They provide a minimum of 3 one-hour energy education sessions on topics such as electricity generation, conservation, meter reading and efficiency tips. Students receive a kit of measures including a CFL, a refrigerator/freezer temperature card, an electroluminescent nightlight, a shower timer, a hot water temperature card, a kitchen faucet aerator and a wall plate thermometer. A low flow showerhead is provided to those students where the results of a water flow test indicated this need. In the 2008-2009 school year, 4,158 students completed the course with an estimated annual savings for measure installation of 801 kWh per student and annual savings from behavioral changes of 1,946 kWh per student. Table 8 includes savings of 801 kWh per year per student (at customer site), representing savings from measure installations only. The program is well received by teachers and students.

Table 8

Energy Education Performance - Washington (2008 -2009 School Year)	
kWh/Yr Savings (at Site)	3,332,335
kWh/Yr Savings (at Gen)	3,699,925
Expenditures - Total	\$ 443,707
Participation - # of Students	4,158

Installed measure savings for the program include additional CFLs purchased by participating households. There is a high probability that these additional CFLs were purchased at retailers selling CFLs that were discounted as a result of the Home Energy Savings Incentive Program⁵. The savings associated with these additional CFL installations identified in the Washington Energy Education program assessment⁶ was 1,005,564 kWh at site for the 2008-2009 school year. In order to avoid potentially double counting these savings, the Residential portfolio results were adjusted downward by 1,005,564 kWh/yr (at site).

⁵ The buydown was extended from a seasonal promotion to a year-round promotion in April 2009.

⁶ "Assessment of Washington Energy Education In Schools- 2008-2009 Program Year", October 8, 2009 by The Cadmus Group. The assessment is included as an appendix to this report.

Non- Residential Energy Efficiency Programs and Activity

FinAnswer Express (Schedule 115)

The FinAnswer Express program provides prescriptive incentives to commercial, industrial and irrigation customers for typical lighting, HVAC, motor, food service, appliances, irrigation, farm equipment, compressed air and other retrofits or new installations. The program includes an expedited energy analysis and incentives based on the equipment installed (\$/fixture, \$/motor, \$/ton, etc.). The program is marketed primarily via trade allies, PacifiCorp staff, and a combination of other Company outreach efforts including radio advertising in 2009. This program began as Small Retrofit Incentive and Retrofit Incentive (Schedules 115 and 116) in November 2000 and was improved and renamed FinAnswer Express (Schedule 115) in May 2004.

Program expenditures, kWh savings and incentives paid are outlined in the tables below.

Table 9

2009 FinAnswer Express Program Performance

kWh/Yr Savings 2009 (Gross - At Gen)	5,847,098
Expenditures	\$ 847,947
Incentives Paid	\$ 441,477

Details of program savings by measure type are provided on the table below.

Table 10

FinAnswer Express kWh/Yr Savings by Measure Type (at Site)

	KWh/Yr	% of KWh
Lighting	5,126,458	96.8%
HVAC	153,844	2.9%
Motors	14,490	0.3%
Other	2,580	0.0%
Total kWh Savings	<u>5,297,372</u>	

Major Trends and Activities:

As previously noted, program changes were approved by the Commission effective October 30, 2009. The primary changes include:

- Addition of new measure categories (Food service, Appliances, Irrigation, Farm Equipment, and Compressed Air)
- Addition of new measures to existing categories (Lighting and Lighting Controls, Motors, HVAC, Building Envelope, and Network PC Power Management)
- Modifications to incentive levels for certain measures (mainly lighting)
- Addition of Schedules 33, 47T, and 53 to the list of eligible rate schedules

Program Evaluations:

In October, 2009, the Company initiated process and impact evaluations for the FinAnswer Express program in Washington for program years 2005 – 2008. The draft results of these evaluations are expected to be available during the second quarter of 2010.

Energy FinAnswer (Schedule 125)

The Energy FinAnswer program serves commercial, industrial, and agricultural customers for retrofits and new construction. The program includes a vendor neutral investment grade energy analysis and cash incentives equal to \$0.15 per kWh annual energy savings plus \$50 per kW average monthly demand savings (up to 60% of project costs)⁷. There is a cap to prevent incentives from bringing the payback for a project below one year and a cap for lighting energy savings per project since lighting-only projects are included in FinAnswer Express. The program includes a commissioning requirement and post-installation verification. There are design assistance services and special incentives available for new construction and major renovation projects where energy code applies. The program is marketed primarily via PacifiCorp account managers, trade allies, Energy FinAnswer consultants and project staff. Other leads come via word-of-mouth, past participants returning for additional projects and a combination of other Company outreach efforts. This program is an existing program enhanced with incentives in October 2000⁸

Table 11

2009 Energy FinAnswer Program Performance

kWh/Yr Savings 2009 (Gross - At Gen)	19,986,500
Expenditures	\$ 2,730,873
Incentives Paid	\$ 1,979,429

Details of program savings by measure type are provided on the table below.

Table 12

Energy FinAnswer kWh/Yr Savings by Measure Type (at Site)

Refrigeration	8,339,199	46%
Compressed Air	6,495,352	36%
HVAC	1,840,738	10%
Process	719,918	4%
Lighting	465,248	3%
Pumps	434,265	2%
Total	<u>18,294,720</u>	

⁷ Incentive amounts were updated during 2009. Previous incentives were 12 cents/kWh and \$50/KW up to 50% of project costs. The new incentive levels went into effect on October 30, 2009. See description of Advice No. 09-04 in the WUTC filings section for further details. Note there are no incentive caps for new construction design assistance projects.

⁸ Prior to October 2000, the program offered energy efficiency funding repaid with interest on the customer's electric bill.

Major Trends and Activities:

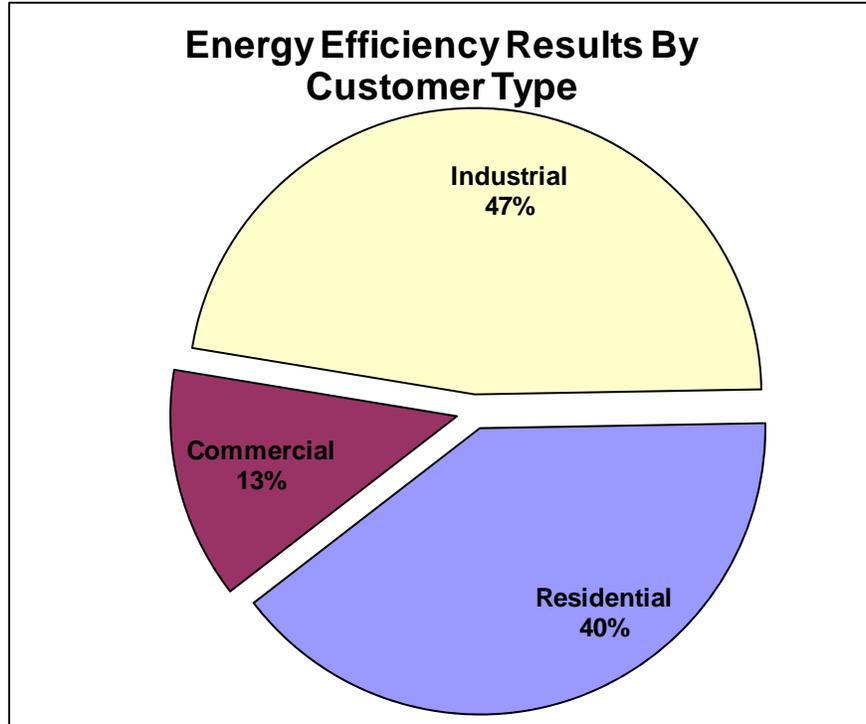
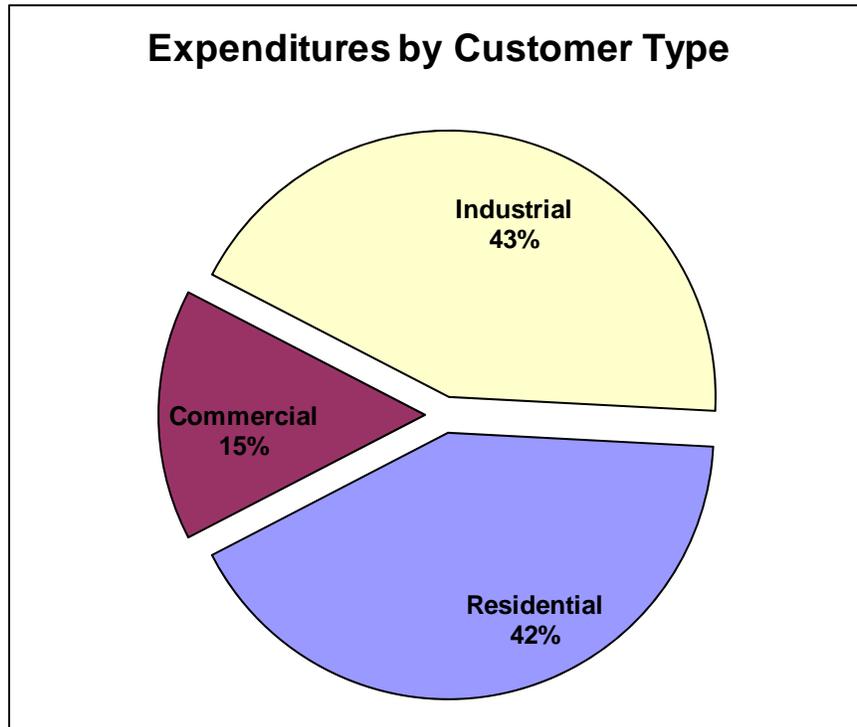
As previously noted, program changes were approved by the Commission effective October 30, 2009. The primary changes include:

- An increase in incentive levels from 12 cents/kWh + \$50/KW with a cap of 50% of project costs to 15 cents/kWh + \$50/KW with a Cap of 60% of project costs.
- Removal of 75% lighting savings cap for design assistance projects for new construction/major renovation
- Addition of Schedules 33 and 47T to the list of eligible rate schedules
Addition of definition of Energy Efficiency Measure (EEM) Cost to better coordinate with incentives offered by natural gas companies

Program Evaluations:

In October, 2009, the Company initiated process and impact evaluations for the Energy FinAnswer program for program years 2005 – 2008. The draft results of these evaluations are expected to be available during the second quarter of 2010.

Overall Expenditures and Results⁹:



⁹ In the regional power plan, savings potential for refrigerated warehouses is included in the industrial sector. This is consistent with the Company's reporting for savings from this segment. Electric sales are identified as commercial however.

System Benefit Charge Balancing Account Summary

Demand Side Management activities are funded through Schedule 191, DSM System Benefit Charge. Expenses for DSM expenditures are charged as incurred and collected from the System Benefit Charge. The DSM balancing account is the mechanism used for managing the revenue collected and expenses incurred in the provision of Demand Side Management programs. The DSM balancing account activity for 2009 is outlined in the table below.

Table 13

Docket No. UE-001457		carrying charge rate:		8.80%
State of Washington				
SBC Summary -- Balancing Account				Balance 12/31/08 (75,796.97)
	Deferred Expenditures	Schedule 191 Revenue Collected	Carrying Charge	Accumulative Balance
Jan-09	337,784.29	(507,544.00)	(566.50)	(246,123.19)
Feb-09	376,791.55	(417,473.00)	(1,661.50)	(288,466.14)
Mar-09	429,609.50	(368,874.00)	(2,155.99)	(229,886.62)
Apr-09	463,489.31	(336,251.00)	(1,662.74)	(104,311.06)
May-09	411,558.51	(313,479.00)	(779.62)	(7,011.16)
Jun-09	379,487.45	(349,208.00)	(50.71)	23,217.58
Jul-09	656,657.72	(379,026.00)	0.00	300,849.30
Aug-09	606,147.12	(386,517.00)	0.00	520,479.42
Sep-09	459,576.50	(368,601.00)	0.00	611,454.92
Oct-09	420,927.97	(343,349.00)	0.00	689,033.89
Nov-09	405,119.24	(511,046.00)	0.00	583,107.13
Dec-09	1,719,032.26	(889,491.00)	0.00	1,412,648.39
Total 2009	6,666,181.42	(5,170,859.00)	(6,877.06)	

Column Explanations:

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

Revenue Collected: Revenue collected through Schedule 191, System Benefit Charge.

Carrying Charge: Monthly charge based on "Accumulative Balance" of the account, accrued when cumulative revenue exceeds cumulative expenditures.

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

During calendar year 2009, the balance in the System Benefits Charge account increased by \$1.66 million. Therefore, PacifiCorp collected \$1.66 million less than was spent on program delivery during the year.

The System Benefit Charge was increased from approximately \$4.5 million (1.7% of revenue) on an annual basis to approximately \$8.8 million annually (3.5% of revenue). The SBC increase was requested in Advice No. 09-05 and became effective on October 30, 2009. The increase will more closely match DSM expenditures with revenue collection and reduce the accumulated balance in the account.

Appendix:

“Assessment of Washington Energy Education in Schools – 2008-2009 Program Year”, October 8, 2009, by the Cadmus Group is attached as a separate document for reference.

Appendix

Date: October 8, 2009
To: Becky Eberle
From: Jamie Drakos and Meghan Lee
Re: Assessment of Washington Energy Education in Schools –
2008-2009 Program Year

This memo provides an assessment of the Washington Energy Education in Schools Program, and includes the following:

- Program Structure
- Participation
- Data Collection Procedures
- Participant Characteristics
- Measure Installation and Adoption of Energy Savings Actions
- Program Impacts
- Program Cost Effectiveness

Program Structure

A total of 4,158 sixth-grade students received education through the local Community Action Agencies (Agencies) delivering the program. The following three agencies were responsible for Program delivery:

- Blue Mountain Action Council (BMAC), Walla Walla
- Northwest Community Action Center (NCAC), Toppenish
- Opportunities Industrialization Center of Washington (OIC), Yakima

Each of the agencies employs a certified teacher (or teachers) to promote the Program to school administrators and teachers in local school districts. The certified teacher serves as an Energy Instructor, delivering energy education in three classroom sessions. The energy education curriculum covers the basics of energy production and consumption, creates awareness of resource use, and instructs students in ways that they and their families can reduce electricity use. Participating students receive a kit of low-cost efficiency measures to encourage them to put their new knowledge into practice. The kits contained the following efficiency measures:

- 14 watt compact fluorescent light bulb
- High efficiency kitchen faucet aerator
- Wall plate thermometer
- Electroluminescent (EL) nightlight
- Shower timer
- Various measurement devices to assess baseline energy consumption including refrigerator/freezer temperature card, water temperature card and water flow bag

Agencies also distribute a high-efficiency showerhead to students that have electric water heating and do not already have a high efficiency showerhead installed.¹

Participation

Participation across the three agencies and overall is shown in Table 1.

Table 1. Participation by Agency

	Student Participants		Percent of Estimate
	Estimate	Actual	
BMAC ²	700	436	62.3%
NCAC	1,600	1,758	110.0%
OIC	1,800	1,964	109.1%
<i>Total</i>	4,100	4,158	101.4%

Both OIC and NCAC exceeded their participation estimates, by about 9%. (OIC exceeded their target by 164 participants, or 9.1%, while NCAC exceeded their target by 158 participants, or 10%). The Program met 101.4% of its overall participation goal of 4,100 students, with 4,158 participants across the three Agencies.

Data Collection Procedures

The Program utilized three data collection tools this year: Home and Appliance Characteristics Survey, Installation Survey, and Follow-Up Survey. These data collection tools were designed to:

- Increase awareness of electricity usage in the home and capture key household characteristics that impact electricity consumption

¹ Determined by pre-installation flow rates of 2.5 gallons per minute or higher. Students test flow rate with water flow bag included in kit.

² The actual participation for BMAC does not meet the target this year because they serve one school only every other year as the classrooms have a mixed 5th and 6th grade.

- Encourage and track the installation of energy efficiency measures and adoption of savings behaviors
- Document student learning and their efforts to share their new knowledge with other members of their household

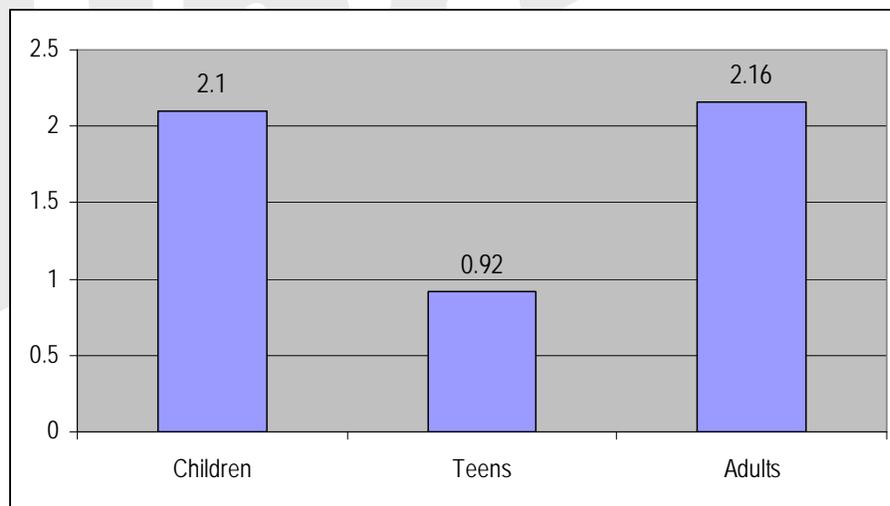
The data collected by students was entered into a database by Agency staff using a web-enabled interface. The data collection/survey instruments are refined on an annual basis to make them easier to use and more effective.

Key participant characteristics that define baseline consumption (type of appliances, occupancy, pre-installation usage factors), measure installation rates, and changes in electricity using behavior are analyzed in order to assess program impacts.

Participant Characteristics

The average participant's household had about 5 occupants as shown in Figure 1, below.

Figure 1. Average Household Occupancy by Age Group



Participants were asked to indicate the primary water heating, space heating and cooling sources in their home. Electricity is used by 80.4% of respondents for water heating, 18.0% use gas and 1.6% use other fuels. Table 2 indicates the percentage of households with each type of heating and cooling equipment.

Table 2. Types of Heating and Cooling Equipment³

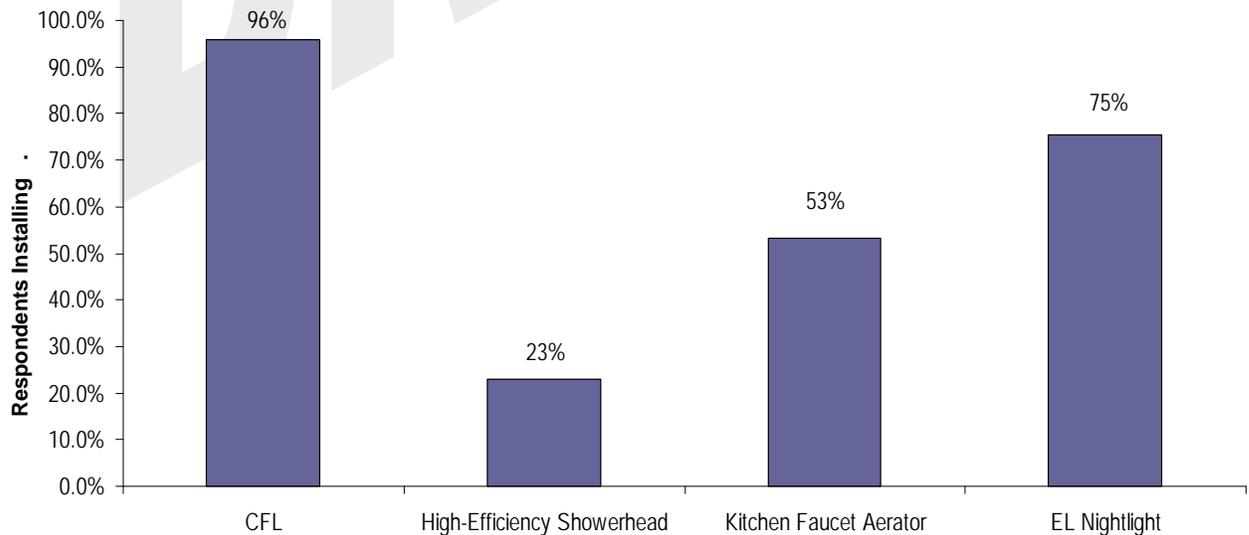
Electric Furnace	Gas Furnace	Other Electric	Oil Furnace	Heat Pump	Other
45.5%	22.7%	10.2%	2.0%	9.2%	10.4%
Central AC	Room Fan	Heat Pump	Window AC	Attic Fan	No Cooling
47.8%	20.0%	4.4 %	22.5%	1.4%	3.9%

The majority of the students (95.5%) indicated that Pacific Power provided electric service to their home. The second most common electric provider was Benton REA (3.8%). Nearly thirty-five percent (34.7%) of the participants reported having natural gas service, with Cascade Natural Gas as the most common provider.

Measure Installation and Adoption of Energy Savings Actions

Students reported back on their installation of measures from the energy kits. The education sessions are intended to encourage high installation rates of kit measures. Figure 2 shows the installation rates reported during the 2008-2009 school year.

Figure 2. Measure Installation Rates⁴



In addition, students also adopted several energy saving behaviors as encouraged by the energy education sessions. Key changes in energy using behaviors that were assessed included:

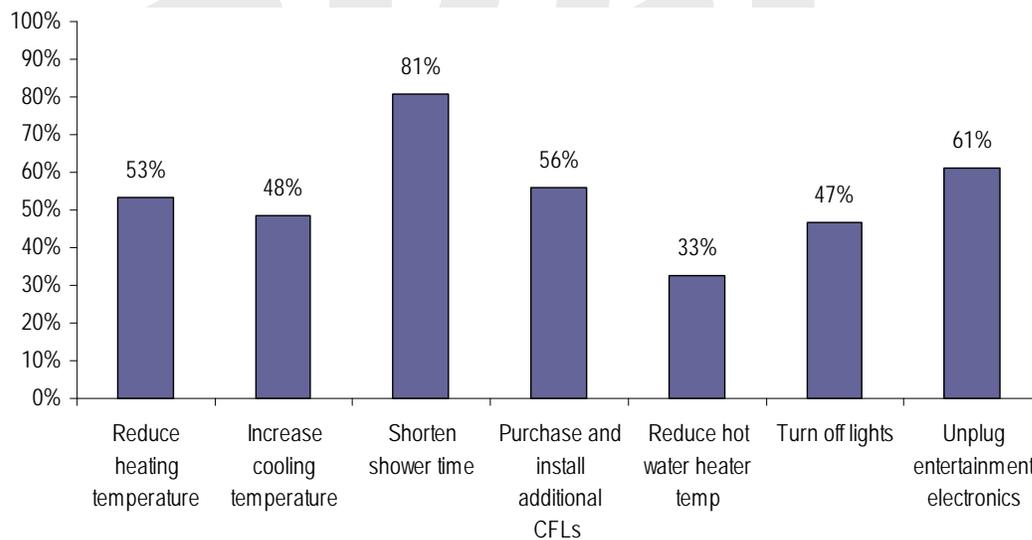
³ Percentages may not add to 100% due to rounding.

⁴ Showerheads are not distributed to all students. Based on results of flow testing, 28% of students received showerheads.

- Changing heating and cooling temperature settings (supported by the wall plate thermometer)
- Reducing shower length (using the shower timer)
- Purchasing and installing additional CFLs
- Reducing hot water temperature (based on temperature card)
- Turning off lights
- Unplugging entertainment electronics

The percentage of students adopting each of these energy savings behaviors is shown in Figure 3.

Figure 3. Adoption of Electricity Saving Behaviors



Program Impacts

We used the student completed surveys to determine baseline consumption characteristics, the installation of measures, and the adoption of energy saving behaviors. Based on their input, we then estimated the electric, natural gas and water savings of the program for the average participant and for the program overall. Table 3 shows the average annual savings per participant and Table 4 shows the total program savings.

Table 3. Average Participant Savings by Measure

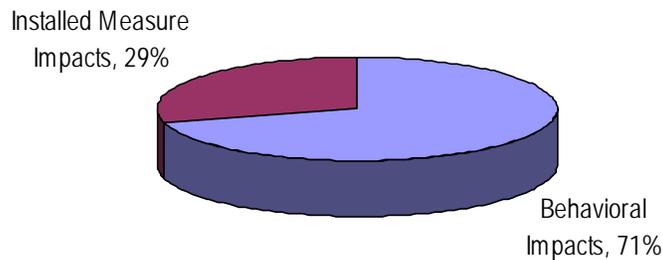
Measure	Average Annual Electric Savings (kWh)	Average Annual Gas Savings (Therms)	Average Annual Water Savings (Gallons)
Installation of Measures			
CFL	83		
Showerhead	284		2,532
EL Nightlight	16		
Kitchen Faucet Aerator	176	2.0	2,024
Install Additional CFLs	242		
Total Installation of Measures	801	2.0	4,556
Behavioral Impacts			
Shorten Shower Time	1,755	20.1	15,658
Adjust Heating Temp.	42	1.8	
Adjust Air Conditioning Temp.	26		
Reduce Hot Water Heater Temp.	21	0.4	
Turn off Lights	42		
Unplug Electronics	60		
Total Educational Impacts	1,946	22.3	15,658
Grand Total	2,747	24.3	20,214

Table 4. Total Program Savings by Measure

Measure	Annual Program Savings (kWh)	Annual Program Savings (Therms)	Annual Program Savings (Gallons)
Installation of Measures			
CFL	345,457		
Showerhead	1,179,581		10,525,034
EL Nightlight	68,335		
Kitchen Faucet Aerator	733,398	8,385	8,415,568
Install Additional CFLs	1,005,564		
Total Installation of Measures	3,332,335	8,385	18,940,602
Behavioral Impacts			
Shorten Shower Time	7,295,650	83,416	65,096,838
Adjust Heating Temp.	175,565	7,409	
Adjust Air Conditioning Temp.	108,683		
Reduce Hot Water Heater Temp.	85,749	1,503	
Turn off Lights	176,011		
Unplug electronics	250,998		
Total Educational Impacts	8,092,656	92,328	65,096,838
Grand Total	11,424,991	100,713	84,037,440

Of the per participant annual electricity savings, 801 kWh are attributed to the installation of measures, while 1,946 kWh are the result of behavioral changes. Figures 3 and 4 show the breakdown of savings between measures and behavioral changes.

Figure 4. Electric Savings Impacts



In addition to the electric savings, the Program also saves natural gas and water. Natural gas savings are attributed to adjustments in space heating thermostat settings, shower length and the installation of the faucet aerators. Water savings are attributed to shower length and the installation of faucet aerators and showerheads. The projected annual Program savings and dollar savings from installed measures and behavioral changes are shown below in Table 5.

Table 5. Annual Natural Gas and Water Savings

	Average Per Participant Savings	Total Program Savings	Total Dollar Savings
Electricity (kWh)	2,747	11,424,991	\$771,187
Natural Gas (Therms)	24.3	100,713	\$146,257
Water (Gallons)	20,214	84,037,440	\$129,867
Total			\$1,047,311

When the average participating household savings for electricity, natural gas and water are combined, the resulting first-year participant savings are \$251.91, as shown below in Table 6.

Table 6. Average Participant Savings

	Annual Savings	Value of Savings (\$)
Electricity (kWh)	2,747	\$ 185.49
Natural Gas (Therms)	24.3	\$ 35.18
Water (Gallons)	20,214	\$ 31.24
<i>Total</i>		\$251.91

Program Cost-Effectiveness

Using the calculated savings impacts and the program costs, we assessed the cost-effectiveness of the 2008-2009 Program. The costs to administer and deliver the Energy Education in Schools program during the 2008-2009 school year are shown below in Table 7.

Table 7. 2008-2009 Program Costs

Cost Category	Program Cost
PacifiCorp Administration	\$ 5,460.72
Agency Costs	\$ 309,045.92
Kits	\$ 73,719.66
Data Tracking and Evaluation	\$ 18,185.33
<i>Total</i>	\$ 406,411.63

We calculate program cost-effectiveness for multiple scenarios and perspectives. For consistency and ease of comparison, we use the same scenarios employed in the analysis of the 2007-2008 school year. Specifically, we consider three scenarios related to program costs and savings:

- **Scenario One** – Savings from both installation of measures and behavioral changes are considered under this scenario. The cost of additional CFLs purchased by the customer was considered a positive participant cost. Kit costs, water, and gas savings are treated as a program benefit.
- **Scenario Two** – Savings from both installation of measures and behavioral changes are considered, but natural gas and water savings are not considered. Kit costs are treated as a Program benefit.
- **Scenario Three** – Only electric savings from measure installation are considered. Kit costs are treated a Program benefit.

A number of analyses were conducted to evaluate the costs and benefits associated with the Program, particularly:

1. **Total Resource Cost Test (TRC)**: This test examines the Program benefits and costs from PacifiCorp's and PacifiCorp customers' perspectives. On the benefit

side, it includes reduction in generation costs. On the cost side, it includes costs incurred by both the utility and the participants. A 10% conservation adder is applied to generation cost savings in Washington.

2. **Utility Cost Test (UCT):** From the company's perspective, the benefits are in the form of reduced generation and line loss costs. The costs include any administrative or measure costs incurred by PacifiCorp.
3. **Ratepayer Impact Test (RIM):** All ratepayers (participants and non-participants) may experience an increase in rates to recover lost revenue. This test includes all PacifiCorp Program costs as well as lost revenues. On the benefits side, this test includes all avoided energy and capacity costs.
4. **Participant Cost Test (PCT):** This test examines the benefits from the Program participant perspective. Benefits include the participant utility bill reductions. Costs include any measure costs incurred by participants, net of any rebates received from the utility. For this Program, participants incurred no measure costs, and did not receive any direct rebates. They do realize energy savings from the various kit measures and the energy savings actions taken.

The results of this analysis are presented in multiple ways, including:

- **Levelized Cost/kWh** – Cost of achieving each kWh of savings levelized over time. The levelized cost/kWh can be compared to the cost of obtaining other resources to assess the cost-effectiveness of an efficiency investment. Energy efficiency resources that can be obtained for a levelized cost of \$.04/kWh or less are generally cost-effective.
- **Net Present Value (NPV)** – The difference between the discounted program benefits and discounted program costs. A net present value greater than zero would indicate benefits of the program exceed costs.
- **Benefit/Cost (B/C) Ratio** – The ratio of program benefits to program costs. The benefits and costs are determined over the life of the program impact and discounted to reflect the time value of money. A B/C ratio greater than 1.0 indicates benefits of the program exceed costs.

Finally, the value of savings is determined using PacifiCorp's avoided cost scenario – that is, the cost to supply electricity that is avoided when it is saved through the Program. We use PacifiCorp's 2007 IRP decrement for the West with a 67% load factor in our analysis. The IRP decrement represents the marginal resource as considered in PacifiCorp's long-term resource plan.

Other key assumptions used in the cost-effectiveness analysis are shown in Table 8.

Table 8. Cost-Effectiveness Assumptions

Assumption	Value
Discount Rate	7.10%
Line Losses	9.94%
Retail Rate	\$0.0675
Net Retail Rate	\$0.0672

The results of the cost-effectiveness analysis for Scenario One are shown in Table 9.

Table 9. Scenario One: Cost-Effectiveness Results

	Levelized Cost \$/kWh	Total Discounted Costs	Total Discounted Benefits	Difference	Total Benefit/Cost Ratio
Total Resource Cost Test	\$0.0021	\$78,837	\$1,666,938	\$1,588,102	21.144
Total Resource Cost Test (TRC) no Adder	\$0.0021	\$78,837	\$1,515,399	\$1,436,562	19.222
Utility Cost Test	\$0.0107	\$406,412	\$1,515,399	\$1,108,987	3.729
Rate Impact Measure (RIM)		\$2,591,134	\$1,515,399	\$(1,075,735)	0.585
Participant (PCT)		\$(327,575)	\$2,201,835	\$2,529,409	NA

Scenario One reflects savings from changes in household energy including behavioral changes. We also included the value of the kits as well as savings in natural gas and water costs as an additional benefit for the participants and the cost of additional CFLs purchased by the household is included as a participant cost. Non-electric and behavioral savings are not claimed by PacifiCorp.

The results of the cost-effectiveness analysis for Scenario Two are shown in Table 10.

Table 10. Scenario Two: Cost-Effectiveness Results

	Levelized Cost \$/kWh	Total Discounted Costs	Total Discounted Benefits	Difference	Total Benefit/Cost Ratio
Total Resource Cost Test	\$0.0095	\$360,560	\$1,666,938	\$1,306,378	4.623
Total Resource Cost Test (TRC) no Adder	\$0.0095	\$360,560	\$1,515,399	\$1,154,839	4.203
Utility Cost Test	\$0.0107	\$406,412	\$1,515,399	\$1,108,987	3.729
Rate Impact Measure (RIM)		\$2,591,134	\$1,515,399	\$(1,075,735)	0.585
Participant (PCT)		\$(45,852)	\$2,201,835	\$2,247,686	NA

Scenario Two reflects savings from changes in household energy including behavioral changes but excluding natural gas and water savings. The value of the kit is included as a benefit to the participant and the cost of additional CFLs purchased by the household is included as a participant cost.

Finally, the results of the cost-effectiveness analysis for Scenario Three are shown in Table 11.

Table 11. Scenario Three: Cost-Effectiveness Results

	Levelized Cost \$/kWh	Total Discounted Costs	Total Discounted Benefits	Difference	Total Benefit/Cost Ratio
Total Resource Cost Test	\$0.0166	\$360,560	\$906,758	\$546,198	2.515
Total Resource Cost Test (TRC) no Adder	\$0.0166	\$360,560	\$824,326	\$463,766	2.286
Utility Cost Test	\$0.0187	\$406,412	\$824,326	\$417,914	2.028
Rate Impact Measure (RIM)		\$1,592,958	\$824,326	\$(768,632)	0.517
Participant (PCT)		\$(45,852)	\$1,208,095	\$1,253,947	NA

Scenario Three does not reflect any savings from changes in household behaviors. Natural gas and water savings are also excluded from this scenario. The value of the kit is again included as a benefit to the participants and the cost of additional CFLs purchased by the household is included as a participant cost.

Conclusion

The attached presentation provides additional information on the performance of the program. In addition to providing cost-effective energy and cost savings, the Program also:

- Generated high levels of satisfaction amongst participating teachers
- Increased knowledge and awareness of the importance of energy efficiency among future energy consumers

The Washington Energy Education in Schools program continues to be a cost-effective initiative based on the standard cost-effectiveness analysis considered by the Washington Utilities and Transportation Commission and provides significant savings to participating families.