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| PacifiCorp |
| 2009 Annual Review of DSM Programs - Washington |
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| 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 1[[1]](#footnote-1)**



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 aMWin Washington (at generation).

# 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 costs[[2]](#footnote-2).
* 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.

# 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 sector[[3]](#footnote-3).

Table 2 – 2009 Performance[[4]](#footnote-4)



**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**

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| **Date** | **Summary** |
| 10/15/2009 | Initial meeting with the DSM advisory group. Declaration and rational 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 Program Performance:

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

**Table 4**



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**



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

**Table 6**





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**



**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**



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 Program[[5]](#footnote-5). The savings associated with these additional CFL installations identified in the Washington Energy Education program assessment[[6]](#footnote-6) 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).

# 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**



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

**Table 10**



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]](#footnote-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 2000[[8]](#footnote-8)

**Table 11**



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

**Table 12**



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 Results[[9]](#footnote-9):





# 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**



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 Accumulated Balance” will be increased by the net amount. A negative accumulative balance means cumulative revenue exceeds cumulative expenditures; positive accumulative balance means cumulative expenditures exceed cumulative revenue.

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.

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. [↑](#footnote-ref-1)
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. [↑](#footnote-ref-2)
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. [↑](#footnote-ref-3)
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. [↑](#footnote-ref-4)
5. The buydown was extended from a seasonal promotion to a year-round promotion in April 2009. [↑](#footnote-ref-5)
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. [↑](#footnote-ref-6)
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. [↑](#footnote-ref-7)
8. Prior to October 2000, the program offered energy efficiency funding repaid with interest on the customer’s electric bill. [↑](#footnote-ref-8)
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. [↑](#footnote-ref-9)