

Rocky Mountain Power

# 2009 Demand-Side Management Annual Report - Wyoming

Rocky Mountain Power Demand Side Management Team  
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## Introduction and Executive Summary

Rocky Mountain Power (the “Company”), working in partnership with its customers and with the approval of the Wyoming Public Service Commission (the “Commission”), uses cost effective demand-side resources and energy efficiency programs (collectively, “DSM programs”) to reduce energy and system peak requirements. Company DSM programs provide participating Wyoming customers with tools that enable them to reduce or assist in the management of their energy usage while reducing the overall costs to the Company and its customers.

The Company currently offers six DSM programs in Wyoming. Costs associated with these programs are recovered through the Customer Efficiency Services Rate Adjustment (Schedule 191). The results of the Company’s Wyoming DSM activities for the reporting period of January 1, 2009 through December 31, 2009 are summarized in Table 1 below.

**Table 1**

### 2009 Total Portfolio Performance

Customer Efficiency Services Revenues Collected	\$	4,069,926
Program Expenditures	\$	1,343,592

kWh/Yr Savings (Gross at Generation)	8,060,609
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	PTRC	TRC	UCT	RIM	PCT
Portfolio Cost Effectiveness	1.707	1.552	2.695	0.724	4.830
Levelized Cost (\$/kWh)	\$ 0.05580	\$ 0.05580	\$ 0.03340		
Lifecycle Revenue Impact (\$/kWh)	\$ 0.00001622				

(Note: See notes for Table 2 for explanation of Gross Savings and line loss assumptions)

Overall first year energy savings for 2009 achieved through DSM programs were 8,060,609 kilowatt hours (kWh) as measured at the generation source. In terms of value of the programs the portfolio savings generated \$1.3 million in net benefits on a Total Resource Cost Basis in 2009. Net benefits represent the difference between the lifetime benefits of the savings and the total costs to acquire the savings. In the most basic terms, the portfolio Total Resource Cost benefit/cost ratio of 1.552 means that the Company’s customers realized \$1.55 in benefits for each \$1.00 spent on demand side resource investments in 2009.

Overall, the Company’s DSM portfolio was cost effective under four of the five cost effectiveness tests based on 2009 results. The Ratepayer Impact Test (RIM) benefit/cost ratio of less than 1.0 indicates that the portfolio put some upward pressure on overall rates (\$0.000016/kWh) due to a reduction in Company kWh sales as a result

of the DSM program savings, what's referred to as lost revenues. At the program level, all DSM programs were cost effective based on the Total Resource Cost and the Utility Cost tests with the exception of the Energy FinAnswer program that generated a Total Resource Cost Test benefit/cost ratio of 0.953, not unusual for a business program of this nature in the first year of implementation as business projects generally take longer to develop and complete.

As agreed to by parties in the stipulation approved in Docket No. 20000-264-EA-06, three categories of customers were established by rate class. Each customer category pays a specific Customer Efficiency Services rate surcharge intended to fund programs for their respective customer category. Provided below is a list of the customer rate schedules included in each category. Revenues from the surcharge as well as DSM program expenditures are tracked by category.

Category 1 (Residential) - Residential Schedules 2 and 18

Category 2 (Small Commercial and Industrial) – Schedules 25, 40, 210 and all lighting schedules

Category 3 (Large Commercial and Industrial) – Schedules 33, 46 and 48T

A more comprehensive table including the names of the rate schedules in each category is included in Table 12 in the Summary of 2009 Results section of this report.

At the end of 2009, the Customer Efficiency Services balancing account had a collective surplus balance of \$ 2,726,334.

## 2009 Performance and Activity

Program and Category level results for 2009 are provided on the following table<sup>1</sup>. Program Schedules are noted in parenthesis in the table.

**Table 2**

**Wyoming Demand Side Management Annual Results for 2009**

Category and Program	Units	kWh/Yr Savings (at site)	kWh/Yr Savings (at generator)	Program Expenditures
<b>Category 1</b>				
Low Income Weatherization (118)	3,445	804,164	878,654	\$ 85,837
Refrigerator Recycling (117)	914	1,173,444	1,282,140	\$ 140,115
Home Energy Savings (111)	4,610	3,006,996	3,285,534	\$ 439,242
<b>Total Category 1 (Residential)</b>	<b>8,969</b>	<b>4,984,604</b>	<b>5,446,328</b>	<b>\$ 665,193</b>
<b>Category 2</b>				
Energy FinAnswer (125)	1	237,062	258,206	\$ 39,662
FinAnswer Express (115)	46	801,103	872,553	\$ 236,050
Self Direction (192)	0	0	0	\$ 1,795
<b>Total Category 2 Commercial</b>	<b>47</b>	<b>1,038,165</b>	<b>1,130,759</b>	<b>\$ 277,507</b>
Energy FinAnswer (125)	0	0	0	\$ 34,008
FinAnswer Express (115)	9	15,777	16,691	\$ 33,685
Self Direction (192)	0	0	0	\$ 1,791
<b>Total Category 2 Industrial</b>	<b>9</b>	<b>15,777</b>	<b>16,691</b>	<b>\$ 69,484</b>
<b>Total Category 2</b>	<b>56</b>	<b>1,053,942</b>	<b>1,147,450</b>	<b>\$ 346,991</b>
<b>Category 3</b>				
Energy FinAnswer (125)	0	0	0	\$ 21,016
FinAnswer Express (115)	16	1,346,717	1,466,831	\$ 139,491
Self Direction (192)	0	0	0	\$ 4,711
<b>Total Category 3 Commercial</b>	<b>16</b>	<b>1,346,717</b>	<b>1,466,831</b>	<b>\$ 165,218</b>
Energy FinAnswer (125)	0	0	0	\$ 95,674
FinAnswer Express (115)	0	0	0	\$ 58,969
Self Direction (192)	0	0	0	\$ 11,547
<b>Total Category 3 Industrial</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>\$ 166,190</b>
<b>Total Category 3</b>	<b>16</b>	<b>1,346,717</b>	<b>1,466,831</b>	<b>\$ 331,408</b>
<b>Total Energy Efficiency (Categories 1, 2 and 3)</b>		<b>7,385,263</b>	<b>8,060,609</b>	<b>\$ 1,343,592</b>

<sup>1</sup> 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 line losses by sector are 9.26 percent for residential, 8.92 percent for commercial and 5.79 percent for industrial. These values are based on the Company's 2001 Transmission and Distribution Loss Study by Management Applications Consulting published in June 2004.

## Major Trends and Activities

The Company offered a portfolio of DSM programs for the first time in 2009 for Wyoming customers. The program portfolio and collection mechanism for DSM were approved in the Commission's October 3, 2008 order in Docket No. 20000-264-EA-06. When entering a new market with DSM programs, the Company's initial focus is on building the necessary delivery infrastructure and awareness among trade groups and retailers that is critical to the long term success of the programs. At the same time, it is necessary to grow customer awareness and begin making the connection between program availability and customer participation. While this work is ongoing, the first year is always the most challenging given there is little to no market momentum to build upon. Coupled with the fact that in Wyoming, few other utilities are actively promoting DSM programs with their customers, electric or gas, much of 2009's effort was spent building the foundational pieces needed for well performing programs in the coming years.

Since the Commission approved the offering of programs, the Company has provided reports to the Commission on the viability of a compact fluorescent lighting (CFL) program for income qualified customers, three updates on the education and promotional materials used to build program awareness and participation in Company DSM programs, a report outlining the potential for program delivery collaboration with natural gas utilities in Wyoming, and a plan for marketing the programs during the first year of program operation.

The Company hosted a media kickoff and promoted the new programs at nine customer events, included program information and availability in bill inserts included in customer monthly statements and provided feature articles on the DSM programs in four Company newsletters specific to the Company's Wyoming customers. A presentation on relevant programs to Wyoming's irrigation customers was provided to members of the Big Horn Basin Irrigators on January 14, 2009 in Worland, Wyoming.

Commercial and Industrial programs kicked off with trade ally training from January 13<sup>th</sup> through the 16<sup>th</sup> in four major service locations. The Company provided vendors and contractors with information about the Company's new programs and incentives for qualified, energy efficient equipment. These sessions also introduced support services available to trade allies through the Company's Energy Efficiency Alliance. Building the trade ally network is a foundational step to delivering and promoting the Company's business DSM programs.

As part of the filing for approval of the DSM portfolio, the Company provided an initial multi-year forecast of anticipated savings and expenditures for the six programs in the portfolio (filed on December 27, 2007). The forecast was predicated on the Company's experience in other states when introducing new programs. Although the Company's results in Wyoming didn't mirror start-up experiences in other states, the results were promising in terms of increasing market awareness, program cost-effectiveness, and net benefit contributions.

The DSM savings from programs for 2009 were approximately 60 percent below those initially forecast; approximately 8,000 megawatt hours were achieved compared to the nearly 21,000 megawatt hour forecast. Expenditures were commensurate with the results at approximately 56 percent below the initial forecast. Expenditures were split evenly between the residential and business programs. However, results were not evenly split, with residential programs contributing nearly 70 percent of the 2009 savings. This is not entirely unexpected as business DSM projects are typically slower to develop due to time required to complete project studies, develop cost benefit business cases, and incorporate project costs into the customer's annual capital budgets. The primary reasons for the difference between the forecasted results and actual results are:

### **Impact of the recession**

On October 3, 2008, the Commission issued its order in Docket No. 20000-264-EA-06 and directed the Company to implement the programs approved in the order by January, 2009. The Commission's order was based on an amended DSM application filed with the Commission on December 26, 2007 as stipulated by the parties on May 23, 2008. Between the date of the stipulation and the implementation date established by the Commission the Dow Jones Industrial Average fell from 12,480 to 9,035, reaching a low of 6,547 on March 9, 2009. The economy remained turbulent throughout 2009, with Wyoming employment decreasing by 18,530 jobs and taxable sales declining more than 27 percent compared to the fourth quarter of 2008<sup>2</sup>.

While the stock market regained some of the losses during 2009, employment and personal income decreased in Wyoming and consumer confidence continues to lag. While the impact on the implementation of the DSM programs has not been verified through survey data, the customer, retail and trade allies' reluctance to take action during this period is believed to be an underlying issue with the performance of the programs<sup>3</sup>.

### **Program ramp time**

In addition, at the time the initial forecast was provided, the Company and delivery vendors anticipated spending approximately six months prior to the beginning of 2009 to complete ramp up activities (e.g., developing relationships with contractors and retailers, marketing the longer lead programs like Energy FinAnswer and Self Direction, developing Wyoming specific marketing materials, etc). With the final approval of the portfolio in October 2008, a substantial amount of the field work on vendor and retail development was conducted in 2009, contributing to fewer months to achieve the full year results. As an example of the participation ramping during the year, approximately 71 percent of 2009

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<sup>2</sup> Source: Wyoming Department of Administration and Information, Economic Analysis Division, *Wyoming Economic Summary: 4th Quarter of 2009*. [http://eadiv.state.wy.us/wef/Economic\\_Summary4Q09.pdf](http://eadiv.state.wy.us/wef/Economic_Summary4Q09.pdf)

<sup>3</sup> The Company notes that a pipeline of projects which are in various phases and expected to generate savings in 2010 and beyond was developed in 2009.

savings were achieved in quarters two and three. However, this factor is secondary to the impact resulting from economic conditions.

### **Customer awareness of demand side management programs and benefits**

There were few or no utility DSM programs offered in Wyoming at the time the Company launched its programs. As such, customer awareness of programs and the benefits of DSM in general was very low when compared to the Company's experience of introducing programs in other markets. A great deal of effort was placed in the promotion of programs and building awareness of the benefits of DSM amongst Wyoming customers during 2009, however initial response was less than anticipated.

### **Cost Effectiveness**

The Company provides cost effectiveness results utilizing five nationally accepted Cost Effectiveness Tests:

1. Total Resource Cost Test (TRC)
2. PacifiCorp Resource Cost Test (PTRC) or TRC + Conservation Adder
3. Utility Cost Test (UCT)
4. Ratepayer Impact Test (RIM)
5. Participant Cost Test (PCT)

The TRC compares the total cost of a supply side resource to the total cost of a DSM program resource, including costs paid by the customer in excess of the program incentives provided. This test is used to determine if a DSM program is cost effective from a total cost perspective.

The PTRC (also referred to as the TRC + Conservation Adder) is a variation of the TRC test. It includes a 10 percent benefit adder to account for non-quantified benefits of conservation resources over supply-side alternatives.

The UCT compares just the portion of the resource cost paid directly by the Company and recovered through the tariff rider revenues. This test is useful in determining the cost-effectiveness of the resource from the Company's perspective; however it does not account for the portion of the cost that is borne directly by customers.

The RIM test determines the impact a DSM program has on rates. The ultimate objective of a DSM program is to encourage customers to use less energy, thereby reducing energy sales. The RIM test accounts for the lost revenues to the utility and associated kWh sales reductions. The net impact of these reductions can put upward pressure on rates even when total costs and utility costs are lower with a successful DSM program than with a supply side alternative.

The PCT test compares just the portion of the resource cost paid directly by participants to the savings realized by the participant. For the PCT, bill savings are the realized benefit of DSM rather than the avoided supply-side costs.

The results for each test for the Wyoming program are provided at several levels:

1. Overall DSM program portfolio (all programs collectively)
2. Residential DSM program portfolio (residential programs collectively)
3. Non-Residential DSM program portfolio (non-residential programs collectively)
4. Individual program (individually by each program)

Overall, the Company's DSM portfolio was cost effective under four of the five cost effectiveness tests and generated net benefits of \$1.3 million from a TRC perspective. The Ratepayer Impact Test (RIM) benefit/cost ratio of less than 1.0 indicates that the portfolio put some upward pressure on overall rates due to the reduction in kWh sales associated with the program savings. At the program level, all demand side management programs were cost effective from a TRC and UCT perspective, with the exception of the Energy FinAnswer program that generated a TRC benefit/cost ratio of 0.953, not unusual for a business program of this nature in the first year of implementation as business projects generally take longer to develop and complete.

Results of the cost effectiveness tests are included in the summary overview for each program. Further details including key inputs and assumptions for each of the cost effectiveness tests are provided in the cost effectiveness section of this report.

## **Plans for 2010**

The Company will continue advertising to build awareness of and participation in the DSM programs. As in 2009, radio and print advertisements, bill inserts and customer newsletters will be continued in 2010.

During 2010, the Company plans to make modifications to the Home Energy Savings program including modifications to lighting, appliances, HVAC and weatherization or shell measures which are intended to adjust for changing market conditions and further improve program performance.

The Company will be filing changes to the FinAnswer Express program to reflect changes in standards for lighting, motors and HVAC equipment.

The Company will file for an adjustment to the Customer Efficiency Services Charge (Schedule 191) within 30 days from the filing of this report to reflect the lower level of program participation in 2009 from that initially forecasted when Schedule 191 was approved in 2008.

Finally, the Company is contracting for an update to the *2007 Assessment of Long-Term System Wide Potential for Demand Side and Supplemental Resources* during 2010. The update will be used to inform the Company in the development of the 2011 Integrated Resource Plan, provide needed data for evaluating existing and prospective program offerings, and keep data current in order to appropriately cost and value demand side resources commensurate with supply side alternatives. .

## Outreach and Communications

The beginning of 2009 saw a flurry of events aimed at introducing the newly deployed DSM programs to Wyoming customers. Meetings to educate possible trade allies started the events off with over a hundred people in attendance. The Company held media kick off events, ran bill inserts in monthly customer statements, placed advertisements in newspapers and business publications, ran radio advertisements and conducted direct mail campaigns throughout the year to inform customers about the new DSM programs.

### Events

#### Business Energy Efficiency Breakfasts

January 13, 2009	Casper
January 14, 2009	Laramie
January 15, 2009	Rock Springs
January 16, 2009	Riverton

Trade allies and customers were invited to learn about the resources available to help them save energy and money for themselves and their clients. The focus of these events was the DSM programs for business customers, Energy FinAnswer and FinAnswer Express. There were 145 total attendees at the four events.

#### Wyoming Big Horn Irrigators

January 14, 2009	Worland
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This meeting was attended by local farmers, ranchers, and others interested in irrigation. The focus of this meeting was to inform irrigators about the DSM programs available, Energy FinAnswer and FinAnswer Express. There were approximately 12 people who attended.

#### Wyoming Media Kickoff Event

January 15 – 16, 2009	Cheyenne
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Cheyenne hosted the Wyoming Press Association's Annual Winter Convention. The event was attended by Governor Freudenthal, Rocky Mountain Power President Richard Walje and approximately 250 convention attendees. Mr. Walje informed the press of the new DSM programs available in Wyoming. The messages cover all DSM programs to be offered.

## Wyoming Utility Exchange

March 5 – 6, 2009                      Casper

The Company's Home Energy Savings ("HES") program was a sponsor in the Wyoming Utility Exchange on March 5-6 in Casper. Company and program administration staff attended and presented the HES program to local stakeholders, contractors, utilities and consumers.

## Lander Rotary Club

April 8, 2009                              Lander

Rotarians were invited to learn about the resources available for commercial, industrial, and residential DSM. There were 30-40 attendees at the meeting.

## Energy Efficient Applications Course

May 12, 2009                              Casper  
May 13, 2009                              Riverton  
May 14, 2009                              Rock Springs  
May 15, 2009                              Laramie

Trade allies were invited to learn about the resources available to help save their client's energy and money. Credit was offered to trade allies for the State of Wyoming continuing education course. The focus was on DSM for lighting and controls available through the FinAnswer Express program. There were 104 attendees total at the four meetings.

## Wyoming "See ya later, refrigerator" Kickoff Event

May 13, 2009                              Casper

"See ya later, refrigerator" was the featured program for a second Rocky Mountain Power Wyoming program implementation kickoff event on May 13, 2009 in Casper. A news conference was held in Casper, Wyoming and featured Casper city manager Tom Forslund who addressed the benefits of newer and more energy efficient refrigerators and freezers as well as the value of recycling old appliances rather filling up local landfills. The kick-off was covered in the local evening news and by other media outlets.

## American Institute of Architects Design Conference

September 25, 2009      Casper

The Company was a key sponsor of this event and staffed a display booth to provide DSM program materials to Wyoming Architects.

## The Contractor & Builder Working Group Meeting

November 4, 2009      Rock Springs

This event was co-branded with Questar Gas Company's Thermwise program and focused on provided DSM program details to HVAC and home improvement contractors as well as new construction builders.

## **Outreach and Coordination**

During 2009, the Self Direction program was marketed to all eligible customers through contact with Company Customer and Community Managers.

In July, FinAnswer Express program staff coordinated with the launch of Questar Gas Company's programs in Wyoming to highlight the availability of DSM programs in Wyoming to both electric and gas customers.

Also in July, the Company provided a letter of support to Casper College for the partnership between Casper College, the McMurry Training Center, Casper Area Economic Development Alliance (CAEDA) and the Department of Workforce Services to initiate a program to identify and address the various workforce issues in energy efficiency and sustainability.

In September, Company staff coordinated with the Wyoming Energy Council to help identify qualified energy consultants to conduct audits.

## **Advertising**

The Company launched a broad-based advertising campaign in Wyoming to promote the demand side management programs during 2009. Radio ads were aired on six different radio stations around the state throughout the year. The ads informed listeners about the DSM programs available to Wyoming customers. Newspaper ads promoting DSM were published in January, March, April, June, and October. Placements were run in the Casper Star-Tribune, Laramie Daily Boomerang, Riverton Ranger, & Rock Springs Rocket-Miner. The Company also ran ads promoting its DSM programs in the Wyoming Business Report during January, March, April, May, and October.

In addition to the broader DSM program advertising, there were a number of advertisements placed in local newspapers and radio spots promoting specific residential programs, including the Home Energy Savings and “See ya later, refrigerator” programs.

### **Bill Inserts**

The Company included information about specific elements of the Home Energy Savings program as inserts in customer bills throughout 2009.

### **Direct Mail**

The Company conducted a direct mail campaign to Wyoming business customers during July 2009 that provided information about incentives available through the Energy FinAnswer and FinAnswer Express programs.

### **Company Newsletters**

The Company provides the Energy Insights (for community leaders and large business customers) and Energy Connections (for mid-sized business customers) newsletters on a quarterly basis. Examples of customer DSM projects supported by the Company’s programs are included in these newsletters.

### **Web Site**

The Company’s web site, [www.rockymountainpower.net](http://www.rockymountainpower.net), includes information on DSM incentive programs, including program details and participation information.

### **Plans for 2010**

Advertising aimed at supporting awareness of and participation in the Company’s DSM programs will continue during 2010 in a similar fashion to 2009. The Company anticipates continuing radio and print advertisement placements in addition to promoting individual programs in bill inserts and customer newsletters.

Energy Efficient Applications Courses will be offered for trade allies again in 2010 during May in Casper, Laramie, Riverton and Rock Springs.

The Home Energy Savings program will partner with Questar Gas Company to promote the “Save green, win big” promotion targeted to retailers in Evanston, Rock Springs and Green River first quarter, 2010.

For the refrigerator recycling program, “See ya later, refrigerator”, the frequency of advertising placements will increase during 2010 to further build customer awareness and encourage additional participation.

## **Filings with the Wyoming Public Service Commission**

The Company made several filings with the Commission regarding its DSM programs during late 2008 and throughout 2009. The dates and descriptions of the filings are provided below. These reports were filed in compliance with the Commission's order in Docket No. 20000-264-EA-06.

### **Plan to Encourage Adoption of Energy Efficiency Policies**

On December 1, 2008, the Company filed a report with the Commission detailing its plan to promote energy efficient policies in the state of Wyoming by working with governmental entities and encouraging policy makers to adopt energy efficient technology, codes and standards.

### **Report on the Viability of a Compact Fluorescent Light Program**

The Company provided the *Wyoming DSM Program Implementation, Low Income Weatherization Program Compact Fluorescent Light Bulb Program Component* filing on December 12, 2008. The filing outlined the potential for inclusion of a CFL component in the Low Income Weatherization program offering.

### **Report on DSM Partnership Opportunities with Natural Gas Utilities**

On March 2, 2009, the Company filed a report outlining opportunities to partner with natural gas utilities in Rocky Mountain Power's Wyoming service territory to leverage its DSM programs. As a follow up on collaboration with natural gas utilities, on December 8, 2009, Rocky Mountain contacted Energy West, Pinedale Gas, Montana-Dakota Gas, Wyoming Gas Co., Questar Gas Company and Source Gas with updates on our DSM program offerings within our Wyoming service territory.

### **DSM Program Promotional and Educational Materials**

On December 1, 2008, the Company filed with the Commission a report containing educational and promotional materials and the promotional plan to be used by the Company to educate the public and promote its DSM programs in Wyoming. On March 2, 2009 and again on July 14, 2009, the Company provided additional educational and promotional materials to the Commission that have been used to promote the DSM programs in Wyoming.

# Residential DSM Programs and Activity

## Home Energy Savings (Schedule 111)

The Home Energy Savings program provides a broad framework to deliver incentives for more efficient products and services installed or received by Wyoming customers in new or existing homes, multi-family housing units or manufactured homes. The program is delivered through Portland Energy Conservation, Inc. (PECI), a third party administrator hired by the Company. Program information is available to the public at the Company's web site at <http://www.rockymountainpower.net/env/epi.html> and the program website at [http://www.homeenergysavings.net/Wyoming/wyoming\\_home.html](http://www.homeenergysavings.net/Wyoming/wyoming_home.html).

Eligible program measures include: washing machines, refrigerators, water heaters, dishwashers, lighting (both compact florescent lamps ("CFLs") and fixtures), cooling equipment and services, ceiling, wall and attic insulation, windows and miscellaneous equipment such as ceiling fans. Incentives are provided to customers through two methods: (1) post-purchase application process with incentives paid directly to participating customers, and (2) mid-market (i.e., retailers and manufacturers) buy-downs for delivery of CFL incentives. Mid-market buy-downs result in lower retail prices for customers at the point-of-purchase and involve no direct customer application process.

Program results for 2009 are provided in the table below.

**Table 3**

### 2009 Home Energy Savings Program Performance

kWh/Yr Savings 2009 (Gross - At Gen)	3,285,534
Expenditures	\$ 439,242
Incentives Paid	\$ 191,990

	PTRC	TRC	UCT	RIM	PCT
Program Cost Effectiveness	1.645	1.495	2.880	0.673	4.525
Levelized Cost (\$/kWh)	\$ 0.0641	\$ 0.0641	\$ 0.0333		
Lifecycle Revenue Impact (\$/kWh)	\$ 0.00000896				
Discounted Participant Payback (Years)	1.79				

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

**Table 4**

**2009 Home Energy Savings Measure Performance**

Home Energy Savings Measures	Unit			kWh/Yr
	Measurement	# of Units	Participants	(Gross - At Site) Savings
Clothes Washer-Tier One	Units	141	141	30,253
Clothes Washer-Tier Two	Units	706	706	168,053
Dishwasher	Units	313	313	8,647
Electric Water Heater	Units	18	18	1,633
Refrigerator	Units	333	333	32,468
Insulation: Attic	Sq Feet	50,601	38	28,211
Insulation: Floor	Sq Feet	5,553	4	5,495
Insulation: Wall	Sq Feet	5,366	6	7,849
Windows	Sq Feet	3,087	22	3,599
Evaporative Cooler	Units	0	0	0
CAC TXV and Install	Projects	2	2	41
CAC TXV and Size	Projects	2	2	121
CAC/HP Tune up	Projects	1	1	13
Central A/C Equipment	Units	2	2	172
Duct Sealing-Electric	Projects	0	0	0
Duct Sealing-Gas	Projects	0	0	0
Heat Pump Conversion	Projects	0	0	0
Heat Pump Upgrade	Projects	0	0	0
Ceiling Fans	Units	12	8	1,289
Fixtures	Units	43	18	3,956
CFLs	Bulbs	88,040	8,804	2,715,198
<b>Totals</b>		<b>154,219</b>	<b>10,418</b>	<b>3,006,996</b>
kWh/Yr Savings at Generation				3,285,534

(Note: CFL Participation is assumed at 10 CFLs per participant.)

**Major Trends and Activities**

The Home Energy Savings program acquired more than 3.2 million kWh/year of savings in its first year of operation. For some perspective, the annual program savings are equivalent to the annual output of more than 4.5 acres of photovoltaic (PV) solar panels.<sup>4</sup>

<sup>4</sup> Based on data from PVWatts Calculator Version 2. (<http://rredc.nrel.gov/solar/calculators/PVWATTS/version2/>). Assumes 1 kW capacity solar panel requires 100 square feet. PVWatts for Laramie Wyoming indicates 1,468 kWh/year of AC energy for 1 kW of installed capacity.

Results for 2009 were approximately 65 percent below those initially forecast, while the expenditures were approximately 45 percent lower than forecast. The primary reason for the shortfall was limited ramp time required to build the retailer, contractor and dealer networks necessary to fully implement the program. As previously mentioned, the initial forecast provided in 2007 envisioned six months of ramp time prior to the beginning of the program becoming available in 2009.

The program was officially launched on January 1, 2009, with processing and invoicing of incentives starting in February. Some of the program highlights and challenges experienced in 2009 are outlined below:

- Initial appliance activity was generated by a few key retailers in the Casper area (nearly 50 percent of appliance incentives came from four retailers in Casper). The large portion of the Wyoming customer base who reside long distances from population centers emphasizes the need to secure participations from a larger network of smaller independent retailers, which generally takes longer to develop, recruit and train.
- There were several challenges with the launch of the CFL offerings with retailers. The program was slated to start with Sam's Club and ACE on January 1 and then roll out to other retailers thereafter.
  - The Sam's Club / GE launch was delayed due to an internal restructuring at Sam's Club, including reorganization of the lighting department and new corporate guidance on managing utility offered programs. The program began on February 18.
  - ACE Hardware initiated activities in January, but did not begin sales until February to accommodate the ordering and fulfillment process with the independently owned stores.
  - CFL recycling was a major factor in the uptake of the program by independent Ace Hardware and True Value Hardware owners. It was discovered during field visits and conversations with owners that Wyoming customers are very aware of the mercury issue in CFLs and are very concerned about proper recycling options. Without these options readily available, store owners were hesitant to sell CFLs in their stores. The program delivery team provided education about available options for recycling and in some cases helped stores get recycling put in place. However, some stores have opted not to sell CFLs until recycling becomes more readily available.

## **2009 Outreach Activities**

The Company's Home Energy Savings program was a sponsor in the Wyoming Utility Exchange held March 5-6 in Casper. Company and program staff attended and presented the HES program to local stakeholders, contractors, utilities and consumers.

The Contractor & Builder Working Group meeting was held November 4, 2009, in Rock Springs. The event was co-branded with Questar Gas Company's Thermwise program

and focused on provided program details to HVAC and home improvement contractors as well as new construction builders.

In addition to the above mentioned events, the Company promoted the Home Energy Savings program through the following methods:

- Radio ads that focused on appliance, CFL and HVAC measures. .
- Newspaper ads that focused on CFL, HVAC and Home Improvement measure.
- Face to face interactions with field staff, contractors, and trade allies.
- Continued contact with retail partners to ensure the program was represented and promoted at the point of appliance purchase.
- Contractor training and education to aid in the promotion of program incentives. The training sessions included distribution of educational materials and program information for use by the contractors.

The availability of federal tax credits<sup>5</sup> and media coverage surrounding federal stimulus funding began increasing the overall awareness and interest in DSM opportunities in homes amongst Wyoming customers. Contractors and retailers in turn have developed marketing messages and sales materials that feature the availability of the federal tax credits resulting in increased customer contact. Use of the tax credits as a sales tool has been especially prominent in the window replacement and home insulation markets.

### **Cost Effectiveness**

The program is cost effective on a TRC, UCT and PCT basis.

### **Plans for 2010**

During 2010, there are a number of initiatives and events planned to raise awareness of and participation in the program in addition to the activities conducted during 2009. Examples include:

Launching a partnership with Questar Gas to execute the “Save green, win big” promotion. This campaign encourages customers to purchase a Home Energy Savings program qualified appliance. By doing so, customers will be given the opportunity to enter a drawing for a gift certificate. Retail sales associates who encourage customers to purchase program qualifying appliances will also have the opportunity to enter the campaign drawing.

Co-sponsoring of the Sweetwater Home and Garden Show in April that will highlight our partnership and help bring awareness to the HES program.

Conducting focused contractor outreach events throughout the year to educate trade allies about program requirements and upcoming program changes.

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<sup>5</sup> Federal tax credits available for residential energy efficiency projects include the Nonbusiness Energy Property Credit and the Residential Energy Efficient Property Credit.

Launching of the “bundled promotion” that provides customers who submit incentive applications for more than one program measure with an added bonus. The promotion will launch in mid to late summer and will be promoted through retail partners using point of purchase materials as well as Web site notifications and in-store visits from program field staff.

Also during 2010, the Company plans to make modifications to the Home Energy Savings program including expanding the lighting offer, adjusting the efficiency requirements for qualifying appliances to align with changing standards, adjust the current HVAC measure bundles including duct sealing and insulation, adjust window requirements and segment the insulation measures by heating fuel source. The proposed changes are similar to those made in other states where the program is available and are designed to improve program performance, enhance participation and align incentives with current market costs.

## Refrigerator Recycling (Schedule 117)

The refrigerator recycling program, which is marketed as “See ya later, refrigerator”, is available to residential customers through a Company contract with a third-party program administrator, JACO Environmental Services. Older refrigerators and freezers which are less efficient, yet operational, are taken out of use permanently and recycled in an environmentally responsible manner. The program’s objective is to permanently retire these older and less efficient refrigerators and freezers from the market and recycle the units in order to avoid their re-entry or resale on the secondary appliance market. To participate, customers call a 1-800 number to schedule a pick-up of their refrigerator or freezer. Program awareness is generated through mass media advertising channels as well as Company channel communications such as the program’s Web site, bill inserts, and customer newsletters. In addition to free pick-up of their appliance and a cash incentive of \$30, participants receive an energy efficiency packet consisting of ENERGY STAR®-certified compact fluorescent light bulbs, a refrigerator/freezer thermometer, and energy education materials.

Program results for 2009 are provided in the table below.

**Table 5**

### 2009 "See ya later, refrigerator" Program Performance

kWh Savings 2009 (Gross - At Gen)		1,282,140
Expenditures	\$	140,115
Incentives Paid	\$	27,120

	PTRC	TRC	UCT	RIM	PCT
Program Cost Effectiveness	1.849	1.681	1.355	0.499	NA
Levelized Cost (\$/kWh)	\$ 0.0416	\$ 0.0416	\$ 0.0516		
Lifecycle Revenue Impact (\$/kWh)	\$ 0.000003148				

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

**Table 6**

### "See ya later, refrigerator" 2009 Results

Refrigerator Recycling Measure	Unit Count	Per Unit Savings (kWh/Yr)	Gross Savings (kWh/Yr)
Refrigerator	752	1,149	864,048
Freezer	152	1,590	241,680
<b>Total Units Recycled</b>	<b>904</b>		<b>1,105,728</b>
Energy Savings Kits	836	81	67,716
<b>Total (At Site)</b>			<b>1,173,444</b>
<b>Total (At Generation)</b>			<b>1,282,140</b>

Total Expenditures	\$	140,115
Total Cash Incentives	\$	27,120

## **Major Trends and Activities**

Participation and expenditures for 2009 were 76 percent below the level forecast. Much of this shortfall can be attributed to the start of the program being in January (a period of lower program activity) and the poor economic conditions experienced in 2009 which impacted this program in several ways:

The evolving mortgage market reduced the buying and selling of homes, which is an ideal time for replacing major kitchen appliances such as refrigerators and freezers.

Homeowners have less equity to utilize for remodeling due to declining housing values and tighter equity lending standards. If homeowners do have equity, many are hesitant to remodel with new appliances because they don't know if it will actually increase the value of their homes.

Major home appliance sales were down 20-25% in 2008-2009. Many customers were only buying new refrigerators when the existing unit stopped working, and those non-working units do not qualify for the See ya later, refrigerator program.

## **2009 Outreach Activities**

In addition to promoting the program through customer bill inserts and program advertising the "See ya later, refrigerator" was the featured program for a second Rocky Mountain Power Wyoming program implementation kickoff event on May 13, 2009 in Casper. A news conference was held in Casper, Wyoming and featured Casper city manager Tom Forslund who addressed the benefits of newer and more energy efficient refrigerators and freezers as well as the value of recycling old appliances rather filling up local landfills. The kick-off was covered in the local evening news and by other media outlets.

## **Environmental Attributes**

In terms of the impact of the program on the environment, processing 904 units resulted in the recycling of more than 120,000 pounds of metals, 23,000 pounds of plastics, three quarters of a ton of tempered glass and the capture, recovery or destruction of over 1,350 lbs of ozone depleting Chlorofluorocarbons (CFC) and Hydro fluorocarbons (HFC), which are commonly used as refrigerants. The Carbon Dioxide (CO<sub>2</sub>) and Equivalent (CO<sub>2</sub>e) avoided from the atmosphere was approximately 7,500 tons.

## **Cost Effectiveness**

The 2009 "See ya later, refrigerator" program was cost effective from both a TRC and UCT perspective. There are no participant costs, so results of that test were not calculated.

## Plans for 2010

Several new program design features will help increase program participation starting in spring of 2010. JACO will be working with Sears, Best Buy, Lowe's & other appliance retailers in Wyoming to allow customers to have the new units delivered and the old units picked up at the same time. This will allow home owners to schedule only one appointment for the delivery of their new appliance and the pickup of their old one. JACO will work with PECl to coordinate retail participation with their Energy Star rebates to make it more convenient for customers to participate in the "See ya later, refrigerator" program.

The program delivery vendor has located a staging location for trailers in the Casper area which will allow greater capacity for shipment of appliances back to the Salt Lake City recycling center. The vendor also has a crew based in Idaho which started in mid-2009 and will collect the Wyoming customers' units more often in 2010. The new schedule will cover the state for a 1 week period every 3 weeks and have the ability to schedule 100-120 units on each trip. This allows capacity in the collection truck and trailer to accommodate the projected number of 1800 units for 2010.

Program marketing efforts will increase in 2010, including increasing the frequency of advertisements. Specific efforts include:

Pay per click internet advertising campaign was run in February and March and resumes in May through September to encourage participation via the internet.

Print advertisements featuring the program started the first week of March, with the last placement scheduled for the week of November 15. Print advertisements are running in the Casper Star Tribune, Daily Rocket Miner, Riverton Ranger, Laramie Daily Boomerang, and Rawlins Daily Times.

Program bill inserts were included in customer bills in March and will run again in May (shared insert with the Home Energy Savings program), July and September.

## Low Income Weatherization (Schedule 118)

The Low Income Weatherization Program (Schedule 118) is designed to provide DSM services to income eligible residential customers. The Company has partnerships in place with the Wyoming Energy Council and the Council of Community Services to provide weatherization services. These two non-profit agencies receive federal and state grants as well as Company funding. Participants can be homeowners or renters and reside in single-family homes, manufactured homes or apartments and receive the energy efficiency services at no cost.

Table 9 summarizes the program results for 2009. The Company's costs associated with the program in 2009 totaled \$85,837.

**Table 7**

<b>Low Income Weatherization Performance - Wyoming</b>	
kWh/Yr Savings (at Site)	804,164
kWh/Yr Savings (at Gen)	878,654
Expenditures - Total	\$ 85,837
Participation - Includes CFL Kits sent to Homes	3,445
Participation - Total # of Completed/Treated Homes	3
Number of Homes Receiving Specific Measures	
Ceiling Insulation	2
Floor Insulation	2
Infiltration	1
Water Pipe Insulation and Sealing	2
Compact Fluorescent Light bulbs	3
Replacement Refrigerators	1

	PTRC	TRC	UCT	RIM	PCT
Program Cost Effectiveness	8.742	7.947	7.947	0.857	NA
Levelized Cost (\$/kWh)	\$ 0.0083	\$ 0.0083	\$ 0.0083		
Lifecycle Revenue Impact (\$/kWh)	\$ 0.00000089				

## Major Trends and Activities

The Company's agreements with the weatherization agencies were initiated in 2009. Due to issues related to finalizing the contracts and changes in the government grants the agencies receive, only three homes were weatherized in 2009 with Company funding. In recognition of the slow ramp rate of this program in 2009, the Company implemented a CFL distribution component for this program. A kit with four compact fluorescent light bulbs (CFLs) was shipped directly to 3,442 income eligible customers. The recipients were households known to be income eligible as they had participated in the Low Income Energy Assistance Program (LIEAP). Through the CFL program component, a large number of income qualifying customers were given tools to start saving kWhs quickly.

## **Cost Effectiveness**

The 2009 Low Income Weatherization program was cost effective from both a TRC and UCT perspective. There are no participant costs, so results of that test were not calculated.

## **Plans for 2010**

The Company has contacted the weatherization agencies as well as Wyoming Family Services staff to request their assistance in determining strategies to reach more qualifying households with the services offered through this program. Wyoming Family Services administers the state and federal grants targeted to provide weatherization services to low income households as well as federal LIEAP energy assistance funds throughout the state. The Company will continue to work towards serving more eligible customers through this program and will continue to distribute CFL kits to additional households that receive LIEAP assistance.

## Non- Residential DSM Programs and Activity

### Energy FinAnswer (Schedule 125)

The Energy FinAnswer program has been offered to Wyoming business customers as a loan based program since the early 1990's. The program was modified to become an incentive based program when the Company proposed to offer its other DSM programs in Docket No. 20000-264-EA-06.

The program provides Company-funded energy engineering, incentives of \$0.12 per kWh of first year energy savings and \$50 per kW of average monthly demand savings up to a cap of 50 percent of the approved project cost. The program is designed to target comprehensive projects requiring project specific energy savings analysis and operates as a complement to the more streamlined FinAnswer Express program. In addition to customer incentives, the program provides design team honorariums (a finder fee for new projects) and design team incentives for new construction projects exceeding International Energy Conservation Code ("IECC") 2003 energy code by at least 10 percent.

The summary program results are provided in the table below.

**Table 8**

#### 2009 Energy FinAnswer Program Performance

kWh/Yr Savings 2009 (Gross - At Gen)	237,062
Total Expenditures	\$ 190,360
Incentives Paid	\$ 15,146

	PTRC	TRC	UCT	RIM	PCT
Program Cost Effectiveness	1.048	0.953	1.022	0.564	12.520
Levelized Cost (\$/kWh)	\$ 0.0817	\$ 0.0817	\$ 0.0761		
Lifecycle Revenue Impact (\$/kWh)	\$ 0.0000012560				

### Major Trends and Activities

One Energy FinAnswer project was completed in 2009 and annual program savings were 62 percent below the level estimated in the 2007 forecast. Energy FinAnswer projects are a substantial undertaking and can take up to a year or eighteen months to progress from the initial analysis to funding, to construction through commissioning and completion.

Twenty two projects with fourteen unique customers were started in 2009. One was completed. Two were subsequently moved to inactive status as customers evaluated project economics and capital availability. Engineering analyses for 10 of the projects was initiated in 2009 and the balance is expected to start in 2010. If customers who initiated these projects in 2009 can secure (or retain) capital funding in 2010 and

complete the installations, many of these projects will generate energy savings in 2010 and 2011. In 2009, stimulus funds from the American Recovery and Reinvestment Act (ARRA) became available to municipalities and represented the only readily available source of funding for many of these customers. As a result, many municipal owners waited for the federal guidelines on ARRA funding before participating in Company DSM programs.

As part of the Company's broader advertising campaign there are business customer specific placements that focus on the Energy FinAnswer and FinAnswer Express programs. Radio ads inform listeners about the Company's business DSM programs. The Wyoming Business Report and the Wyoming Energy Journal had a total of eleven ads run throughout 2009, informing readers of Company programs.

The Company sponsored the annual American Institute of Architects (AIA) Design Conference on September 25<sup>th</sup>, 2009 in Casper. The Company was a key sponsor and staffed a display booth to provide DSM program materials to Wyoming Architects.

The Company markets the program through its Customer and Community Managers and network of trade allies in concert with the FinAnswer Express program.

### **Cost Effectiveness**

The 2009 Energy FinAnswer program was cost effective from a UCT and PCT perspective, but achieved a benefit cost ratio of less than 1.0 from a TRC perspective with a benefit cost ratio of 0.953.

The primary contributor to the marginal TRC was the long lead time required to complete Energy FinAnswer projects. As previously mentioned, it is not uncommon for projects to take more than a year to reach completion. In addition, projects involve a great deal of engineering analysis in the early stages of projects. During 2009, more than \$105,000 was invested in engineering analysis for customer projects, including work at several industrial facilities. These investments should generate savings when customers complete these projects in 2010 and beyond.

Finally, there were a number of marketing and promotional expenses incurred during 2009 to raise awareness of the program in the business community. As with other markets, these expenses were higher as a percentage of incentive expense during the ramp up year than they will be with a more mature program.

### **Plans for Next Year**

For 2010, customers have already signed letters of intent to complete projects totaling approximately two million kWhs of potential savings.

The Company will continue promotion of the program through radio and print advertisements as well as through Customer and Community Managers and the trade

ally network. The advertising plan for 2010 includes print placements in the five major newspapers<sup>6</sup> in March, July, August, October and November. Radio ads are planned to air during March and then again at periods between July and November.

The Company will continue to monitor actual and forecasted participation and assess the potential impacts of program modifications as necessary to achieve savings through the program.

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<sup>6</sup> Casper Star Tribune, Daily Rocket Miner, Riverton Ranger, Laramie Daily Boomerang, and Rawlins Daily Times

## FinAnswer Express (Schedule 115)

The FinAnswer Express program is available to help customers improve the efficiency of their new or replacement lighting, motors, and other equipment purchases by providing prescriptive or pre-defined incentives for the most common efficiency measures. The program is designed to operate in conjunction with the Energy FinAnswer program. Although incentives available vary, the program provides incentives for both new construction and retrofit projects.

The program is primarily marketed through local trade allies who receive support from a Company provided sales and training team. As of the end of 2009, 138 energy efficiency alliance participants have signed Company program participation agreements.

The summary program results for 2009 are provided in the table below.

**Table 9**

### 2009 FinAnswer Express Program Performance

kWh/Yr Savings 2009 (Gross - At Gen)	2,356,075
Total Expenditures	\$ 468,195
Incentives Paid	\$ 186,478

	PTRC	TRC	UCT	RIM	PCT
Program Cost Effectiveness	1.332	1.211	2.755	0.814	2.404
Levelized Cost (\$/kWh)	\$ 0.0636	\$ 0.0636	\$ 0.0280		
Lifecycle Revenue Impact (\$/kWh)	\$ 0.0000009023				

Details of 2009 savings by type of measure are provided on the following table.

**Table 10**

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

Lighting	1,078,462	49.8%
Non-Lighting	1,085,135	50.2%
	<u>2,163,597</u>	

## Major Trends and Activities

Program savings for 2009 were 7 percent above the level anticipated in the 2007 forecast, while expenditures were more than 30 percent below the forecast level. On a combined basis, 2009 kWh savings from Energy FinAnswer and FinAnswer Express were 9 percent below the 2007 forecast while expenditures were 30 percent below the forecast.

FinAnswer Express projects completed in 2009 included 25 lighting projects and 16 high efficiency mechanical equipment retrofit projects (46 measures in total). Efforts to achieve deeper savings for each project were conducted by ensuring that customers were aware of incentives for a wide array of commercial and industrial measures.

A dedicated team of technical and outreach specialists support trade allies throughout the year by conducting on-site program trainings, responding to inquiries from customers and trade allies, and publishing a bi-monthly educational newsletter. The team also regularly interfaces with manufacturers and distributors of qualifying products to educate and train local dealers, contractors, and service technicians about the program. Dedicated program staff located in Casper, Wyoming and Salt Lake City, Utah conduct approximately 115 trade ally interactions each month.

Starting with the program launch in 2009, program staff conducted educational seminars throughout Rocky Mountain Power's Wyoming service territory from January 13 to 16, 2009. The seminars, held in Casper, Laramie, Rock Springs, and Riverton, were attended by 116 contractors/distributors (145 total attendees) and focused on providing information about program rules, incentives, and marketing opportunities.

In July 2009, program staff coordinated with Questar Gas Company's DSM program launch in Wyoming to further emphasize the availability of incentives for both electric and natural gas equipment, where the service territories overlap. Program staff met with additional HVAC contractors and distributors to bolster participation and reinforce program training.

In November 2009, program staff conducted a broader review of the distribution chains in the Wyoming service territory. Staff met with 15 key HVAC distribution representatives in Idaho Falls, Evanston, Casper, and Rock Springs to enhance program awareness. Results of these interactions informed program staff of the distribution chain for high efficiency equipment in Wyoming which also extends into Utah, Idaho, and Colorado. Additional efforts in 2010 will focus on reaching into these markets to enhance stocking practices of high efficiency products.

In addition to referrals from other programs, marketing by DSM department project managers and Customer and Community managers, and on-going sales efforts by vendors of high efficiency equipment, program information was also provided at the energy efficiency focused events outlined in the Communications and Outreach section of this report.

### **Cost Effectiveness**

Based on 2009 results, the program was cost effective on a TRC, UCT and PCT basis.

### **Plans for 2010**

The Company will file changes for selected components of the lighting, motors, HVAC refrigeration offers to reflect the effects of changes in codes and standards.

Program staff will continue similar levels of outreach and training activities in 2010. Additional savings over the 2009 program is anticipated to be acquired through the following key activities:

- Further development of the trade-ally specific Web site to provide targeted information about program features, changes and training opportunities to trade allies.
- Building and expanding relationships with key members of the HVAC, lighting, motors, architecture and engineering communities to continue to make the business case for energy efficiency equipment.
- Additional emphasis has been placed reaching more irrigation customers in 2010 through dedicated training and outreach activities. In January 2010, program staff presented program information to irrigation customers at the WESTI Ag Days meetings in Worland. Approximately 45 attendees at the conference participated in the FinAnswer Express training. The Company anticipates greater program participation from this sector in 2010.
- Although the economic conditions in 2009 limited new construction activity for commercial buildings, additional outreach will be focused on this market sector as the economy improves. Program staff will leverage existing efforts to achieve deeper savings penetration levels across qualifying high efficiency technologies.
- Leveraging outreach activities with Questar Gas Company to further reinforce opportunities for high efficiency HVAC equipment that use both natural gas and electricity.

## Self Direction (Schedule 192)

The Self Direction credit program is available to Wyoming business customers who meet minimum usage requirements of 5,000,000 kWh per year or have a peak load of at least 1,000 kW in the prior 12 months. Customers are responsible for providing the energy engineering work necessary to document the energy savings of proposed projects. This program is designed to provide another option for business customers who have projects similar to those qualifying for incentives from the Energy FinAnswer or FinAnswer Express programs. Incentives are provided in the form of credits used to offset the Customer Efficiency Services surcharge (DSM surcharge) on the monthly bill and are available for both new construction and retrofit projects. In addition, there is a provision for customers with no remaining cost effective DSM projects at their location to qualify for a credit that may be used to offset a portion of their monthly charge.

The program is primarily marketed through customer and community managers and by referral between other programs for business customers. In addition, a few energy engineers market their services to large customers who may be interested in participating.

There were no Self Direction projects completed and approved during 2009, therefore no savings were recognized during the year.

The summary program results are provided in the following table.

**Table 11**

### 2009 Self Direction Program Performance

kWh/Yr Savings 2009 (Gross - At Gen)	-
Expenditures	\$ 19,844
Incentives Paid	\$ -

	PTRC	TRC	UCT	RIM	PCT
Program Cost Effectiveness	NA	NA	NA	NA	NA
Levelized Cost (\$/kWh)	NA	NA	NA		
Lifecycle Revenue Impact (\$/kWh)	NA				

## Major Trends and Activities

In 2009, the Self-Direction Credit program was marketed to all eligible customers through Company Customer and Community Managers. The Company estimates that approximately 130 customers are eligible to participate. The Company pointed eligible customers to engineering resources to identify site-specific projects that may be eligible for Self-Direction Credit program incentives. In 2009, 4 customers identified potential self-direction projects to the Company. One project received approval in January 2010 for work completed in 2009. Savings for this project will be included in 2010.

## **Cost Effectiveness**

There were no projects completed and approved during 2009 to assess cost effectiveness of the program.

## **Plans for 2010**

The Company is currently working with three key industrial customers on potential self-direction projects. Additional engineering analyses are being performed to assess the potential savings and economics of these projects. The Company will be working with additional key customers to ensure that projects are identified and routed to the appropriate Company efficiency program.

## Summary of 2009 Results

As agreed in the stipulation approved in Docket No. 20000-264-EA-06, three categories of customers were established by rate class. Each customer category pays a specific Customer Efficiency Services rate surcharge. The following table provides a list of the customer rate schedules included in each category. Revenues from the surcharge as well as DSM program expenditures are tracked by category.

**Table 12**

### **Customer Efficiency Services Balancing Account Categories**

#### **Category 1 - Residential**

- 2 Residential Service
- 18 Three Phase Residential Service Rider

#### **Category 2 - Small Commercial and Industrial**

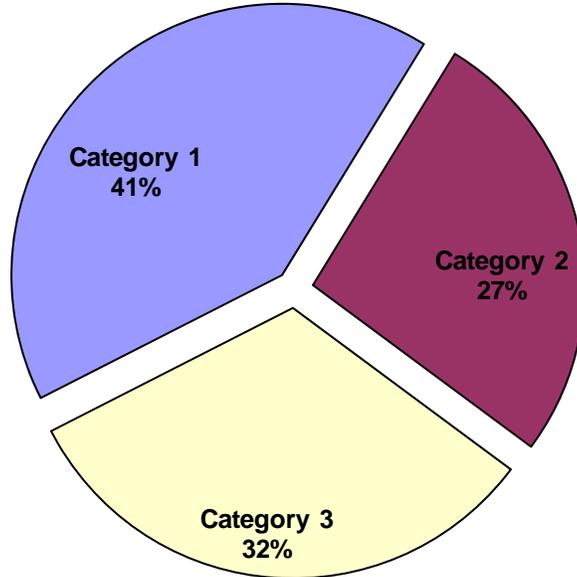
- 15 Outdoor Area Lighting Service No New Service
- 25 Small General Service
- 28 General Service
- 40 Agricultural Pumping Service 1
- 51 Street Lighting Service Company Owned System 1
- 53 Mercury Vapor Street Lighting Service No New Service
- 54 Recreational Field Lighting Restricted
- 57 Street Lighting Service Company Owned System No New Service
- 58 Street Lighting Service Customer Owned System
- 207 Security Area Lighting
- 210 Agricultural Pumping Service
- 211 Street Lighting Service Company Owned System
- 212 Street Lighting Service Customer Owned System 1
- 213 Outdoor Nighttime Lighting and Signal System Service Customer Owned System

#### **Category 3 - Large Commercial and Industrial**

- 33 Partial Requirements Service
- 46 Large General Service Time of Use 1 000 kW and Over
  
- 48T Large General Service Transmission Delivery Time of Use 1 000 kW and Over

**Table 13**

**2009 Revenues (Schedule 191) by Category**



**Table 14**

**2009 Expenditures (Schedule 191) by Category**

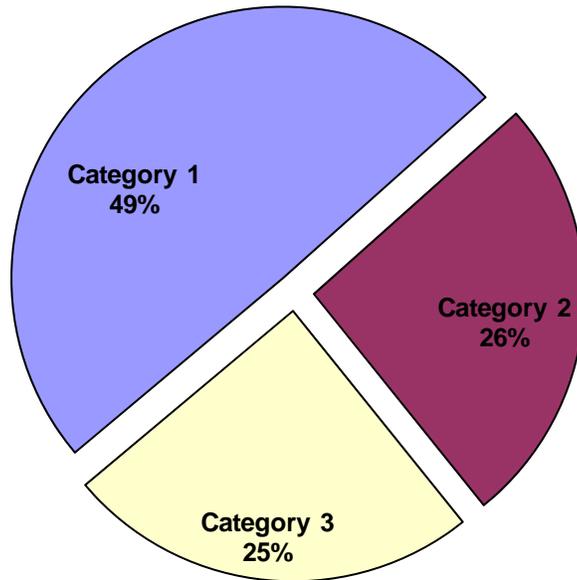
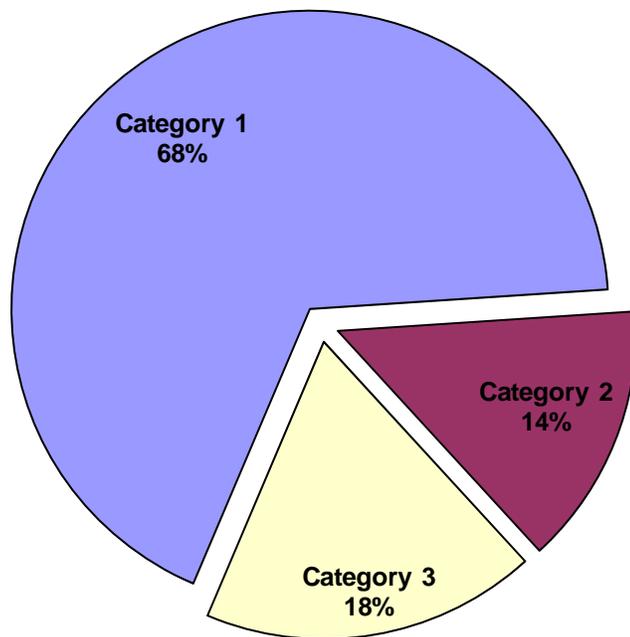


Table 15

**2009 DSM Program Results By Category**



The following table provides take rates for each of the programs in the DSM portfolio by customer segment. The take rate was calculated based on the number of unique participating customers for each program during 2009 divided by the average number of customers in each segment during 2009.

**Table 16<sup>7</sup>**  
**Take Rates By Program and Customer Segment - 2009 Wyoming**

<b>Residential</b>		<b>107,777 Total Customers</b>	
<b>Program Name</b>	<b>Number of Unique Participants</b>	<b>% of Residential Customers</b>	
Low Income	3,442	3.2%	
See ya later, refrigerator	836	0.8%	
Home Energy Savings (With CFLs)	10,287	9.5%	
Home Energy Savings (Without CFLs)	1,483	1.4%	
Total Residential Participation (With CFLs)	14,565	13.5%	
Total Residential Participation (Without CFLs)	5,761	5.3%	
<b>Commercial</b>		<b>22,951 Total Customers</b>	
<b>Program Name</b>	<b>Number of Unique Participants (Completed Projects)</b>	<b>% of Commercial Customers</b>	
Energy FinAnswer	1	0.0%	
FinAnswer Express	34	0.1%	
Self Direction	-	0.0%	
	35	0.2%	
<b>Industrial</b>		<b>2,690 Total Customers</b>	
<b>Program Name</b>	<b>Number of Unique Participants (Completed Projects)</b>	<b>% of Industrial Customers</b>	
Energy FinAnswer	-	0.0%	
FinAnswer Express	6	0.2%	
Self Direction	-	0.0%	
	6	0.2%	

<sup>7</sup> Average number of customers by segment provided by PacifiCorp Regulation Department.

## Balancing Account Summary

Demand Side Management activities are funded by revenue collected through Schedule 191, Customer Efficiency Services Rate Adjustment charge on customer bills. Expenses for DSM expenditures are charged as incurred and booked to the balancing account for the appropriate category. Activity for the DSM balancing accounts for 2009 is outlined in the tables below.

There are four tables, one for each category and a Wyoming total that aggregates all the category balances.

**Table 17**  
**Category 1 (Residential)**

	Monthly Program		
	Cost - Fixed Assets	Rate Recovery	Accumulated Balance
January	\$ 27,219	\$ (90,805)	\$ (63,586)
February	\$ 35,760	\$ (178,170)	\$ (205,996)
March	\$ 31,222	\$ (162,329)	\$ (337,104)
April	\$ 43,322	\$ (151,763)	\$ (445,546)
May	\$ 80,477	\$ (132,935)	\$ (498,004)
June	\$ 48,057	\$ (120,630)	\$ (570,578)
July	\$ 69,798	\$ (124,348)	\$ (625,127)
August	\$ 68,275	\$ (128,482)	\$ (685,335)
September	\$ 51,609	\$ (121,285)	\$ (755,011)
October	\$ 58,389	\$ (125,264)	\$ (821,885)
November	\$ 50,951	\$ (146,921)	\$ (917,854)
December	\$ 100,115	\$ (196,139)	\$ (1,013,878)
<b>2009 totals</b>	<b>\$ 665,193</b>	<b>\$ (1,679,072)</b>	

**Table 18**  
**Category 2 (Small Commercial and Industrial)**  
**Monthly**  
**Program**

	<b>Cost - Fixed</b>	<b>Rate</b>	<b>Accumulated</b>
	<b>Assets</b>	<b>Recovery</b>	<b>Balance</b>
January	\$ 5,769	\$ (42,985)	\$ (37,216)
February	\$ 10,233	\$ (92,259)	\$ (119,242)
March	\$ 15,333	\$ (91,253)	\$ (195,162)
April	\$ 46,432	\$ (88,716)	\$ (237,445)
May	\$ 12,992	\$ (73,412)	\$ (297,865)
June	\$ 41,953	\$ (84,514)	\$ (340,426)
July	\$ 9,576	\$ (115,573)	\$ (446,423)
August	\$ 20,739	\$ (96,510)	\$ (522,193)
September	\$ 74,172	\$ (97,089)	\$ (545,111)
October	\$ 39,813	\$ (94,991)	\$ (600,289)
November	\$ 58,885	\$ (91,772)	\$ (633,177)
December	\$ 11,095	\$ (105,302)	\$ (727,384)
<b>2009 totals</b>	<b>\$ 346,991</b>	<b>\$ (1,074,375)</b>	

**Table 19**  
**Category 3 (Large Commercial and Industrial)**  
**Monthly**  
**Program**

	<b>Cost - Fixed</b>	<b>Rate</b>	<b>Accumulated</b>
	<b>Assets</b>	<b>Recovery</b>	<b>Balance</b>
January	\$ 5,203	\$ (24,884)	\$ (19,681)
February	\$ 13,154	\$ (116,150)	\$ (122,676)
March	\$ 13,083	\$ (112,614)	\$ (222,207)
April	\$ 44,558	\$ (113,000)	\$ (290,650)
May	\$ 22,070	\$ (111,790)	\$ (380,370)
June	\$ 7,739	\$ (115,015)	\$ (487,646)
July	\$ 7,143	\$ (115,018)	\$ (595,521)
August	\$ 8,672	\$ (121,331)	\$ (708,180)
September	\$ 135,619	\$ (112,178)	\$ (684,739)
October	\$ 22,062	\$ (120,342)	\$ (783,019)
November	\$ 27,883	\$ (126,095)	\$ (881,230)
December	\$ 24,221	\$ (128,063)	\$ (985,071)
<b>2009 totals</b>	<b>\$ 331,408</b>	<b>\$ (1,316,479)</b>	

**Table 20**

<b>Wyoming Total</b>			
<b>Monthly Program</b>			
	<b>Cost - Fixed Assets</b>	<b>Rate Recovery</b>	<b>Accumulated Balance</b>
January	\$ 38,191	\$ (158,674)	\$ (120,483)
February	\$ 59,147	\$ (386,579)	\$ (447,915)
March	\$ 59,638	\$ (366,196)	\$ (754,474)
April	\$ 134,312	\$ (353,479)	\$ (973,640)
May	\$ 115,538	\$ (318,137)	\$ (1,176,239)
June	\$ 97,748	\$ (320,158)	\$ (1,398,650)
July	\$ 86,518	\$ (354,939)	\$ (1,667,071)
August	\$ 97,686	\$ (346,323)	\$ (1,915,709)
September	\$ 261,400	\$ (330,551)	\$ (1,984,860)
October	\$ 120,264	\$ (340,596)	\$ (2,205,193)
November	\$ 137,719	\$ (364,788)	\$ (2,432,261)
December	\$ 135,431	\$ (429,504)	\$ (2,726,334)
<b>2009 totals</b>	<b>\$ 1,343,592</b>	<b>\$ (4,069,926)</b>	

**Column Explanations:**

Monthly Program Costs – Fixed Assets: Monthly expenditures for all DSM program activities

Rate Recovery: Revenue collected through Schedule 191, Customer Efficiency Services Adjustment Rate.

Accumulated Balance: Current balance of the account.

At the beginning of 2009, the accumulated balance for all categories was zero and it increased to approximately \$2,726,000 during 2009.

The Company recognizes that DSM programs have not been as widely utilized as initially forecasted for 2009 for reasons previously explained and as a result the Company has accumulated a surplus balance in the Customer Efficiency Services balancing accounts. The Company intends to complete an analysis of the balancing accounts and develop a revised forecast of DSM program activity and expenditures in preparation for recommended adjustments to the Customer Efficiency Service Rate Adjustment charge which will be filed within 30 days from the filing of this report. In accordance with the stipulation reached amongst parties in Docket No. 20000-264-EA-06 and as approved by the Commission, the Company intends to propose the changes to the Customer Efficiency Service rates become effective July 1, 2010.

# Cost Effectiveness

## Introduction

The cost effectiveness of individual programs operated by the Company in 2009 are calculated using actual expenditures and reported savings. Cost-effectiveness is provided at the individual program, residential DSM portfolio, non-residential DSM portfolio and overall DSM portfolio levels. Deemed savings estimates, where applicable, were the same as those used in the planning estimates.

Energy savings shown in this report are gross savings and the impact of line losses is indicated with an “at site” or “at generation” designation. Line losses are based on the Company’s 2001 line loss study. Net-to-gross assumptions are consistent with planning estimates. The energy savings attributed to each program are shaped according to specific end-use savings (the hourly calculation of when energy is used for the various end-use measures from which the savings are derived). Program costs and the value of the energy savings are then compared on a present value basis with the Company’s 2008 Integrated Resource Plan (IRP) calculated decrement values for demand-side resource savings and avoided capacity investments. The DSM resource decrement values are fully shaped to represent the 8,760 hourly values that exist within a calendar year. By matching the hourly savings with the hourly avoided costs, both energy and capacity impacts of DSM savings are recognized.

The Company provides cost effectiveness results utilizing five nationally accepted Cost Effectiveness Tests:

1. Total Resource Cost Test (TRC)
2. PacifiCorp Resource Cost Test (PTRC) or TRC + Conservation Adder
3. Utility Cost Test (UCT)
4. Ratepayer Impact Test (RIM)
5. Participant Cost Test (PCT)

The five cost effectiveness tests were utilized in the cost benefit analysis. Tables 22 through 30 below provide the cost benefit test results for the 2009 programs.

## Key Assumptions for Cost Effectiveness Calculations

Global assumptions used in all cost effectiveness calculations include:

**Table 21**

### Key Assumptions for All Cost Effectiveness Studies:

<u>Assumption</u>	<u>Value</u>	<u>Source</u>
Discount Rate	7.40%	2008 IRP
Line Losses (Wyoming Specific)		
Residential	9.263%	2001 MAC Line Loss Study
Commercial	8.919%	2001 MAC Line Loss Study
Industrial	5.792%	2001 MAC Line Loss Study

Key elements that go into the cost effectiveness calculation for each program include:

- kWh Savings Gross
- Administrative Expenses
- Incentives Paid
- Total Utility costs – including administration and evaluation
- Gross Customer Costs
- Net To Gross Ratio
- Measure Life
- IRP Decrement Value

Cost effectiveness calculations for each portfolio and program are provided in the following tables.

## Portfolio Cost Effectiveness

The overall DSM portfolio and component sectors were cost effective from the Total Resource Cost, Utility Cost and Participant Cost perspectives.

The following table provides the overall portfolio and sector results of all 5 cost effectiveness tests.

**Table 22**

### 2009 Portfolio and Sector Cost Effectiveness Summary

	Cost Effectiveness Test				
	PTRC	TRC	UCT	RIM	PCT
2009 Total DSM Portfolio	1.707	1.552	2.695	0.724	4.830
2009 Residential DSM Portfolio	2.250	2.046	3.213	0.699	8.365
2009 Non-residential DSM Portfolio	1.267	1.151	2.188	0.762	2.634

Cost effectiveness results for each sector and program are provided below.

**Table 23**

### 2009 Total DSM Portfolio

	Levelized \$/kWh	Costs	Benefits	Net Benefits	Benefit/Cost Ratio
Total Resource Cost Test (PTRC) + Conservation Adder	0.0558	\$2,334,089	\$3,983,814	\$1,649,725	1.707
Total Resource Cost Test (TRC) No Adder	0.0558	\$2,334,089	\$3,621,649	\$1,287,560	1.552
Utility Cost Test (UCT)	0.0334	\$1,343,592	\$3,621,649	\$2,278,057	2.695
Rate Impact Test (RIM)		\$5,004,919	\$3,621,649	(\$1,383,270)	0.724
Participant Cost Test (PCT)		\$990,497	\$4,784,380	\$3,793,883	4.830
Lifecycle Revenue Impacts (\$/kWh)				\$0.0000162216	

**Table 24****2009 Residential DSM Portfolio**

	Levelized \$/kWh	Costs	Benefits	Net Benefits	Benefit/Cost Ratio
Total Resource Cost Test (PTRC) + Conservation Adder	0.0423	\$1,044,722	\$2,350,749	\$1,306,027	2.250
Total Resource Cost Test (TRC) No Adder	0.0423	\$1,044,722	\$2,137,045	\$1,092,322	2.046
Utility Cost Test (UCT)	0.0269	\$665,193	\$2,137,045	\$1,471,851	3.213
Rate Impact Test (RIM)		\$3,057,731	\$2,137,045	(\$920,686)	0.699
Participant Cost Test (PCT)		\$379,529	\$3,174,858	\$2,795,329	8.365
Lifecycle Revenue Impacts (\$/kWh)				\$0.0000107969	

**Table 25****2009 Home Energy Savings Program**

All Measures				AC: IRP 46% LF Decrement	
	Levelized \$/kWh	Costs	Benefits	Net Benefits	Benefit/Cost Ratio
Total Resource Cost Test (PTRC) + Conservation Adder	0.0641	\$845,891	\$1,391,498	\$545,607	1.645
Total Resource Cost Test (TRC) No Adder	0.0641	\$845,891	\$1,264,998	\$419,107	1.495
Utility Cost Test (UCT)	0.0333	\$439,242	\$1,264,998	\$825,756	2.880
Rate Impact Test (RIM)		\$1,880,943	\$1,264,998	(\$615,945)	0.673
Participant Cost Test (PCT)		\$406,649	\$1,839,958	\$1,433,309	4.525
Lifecycle Revenue Impacts (\$/kWh)				\$0.0000089566	
Discounted Participant Payback (years)				1.79	

**Table 26****2009 Refrigerator Recycling – “See ya later, refrigerator”**

All Measures				AC: IRP 46% LF Decrement	
	Levelized \$/kWh	Costs	Benefits	Net Benefits	Benefit/Cost Ratio
Total Resource Cost Test (PTRC) + Conservation Adder	0.0416	\$112,995	\$208,891	\$95,896	1.849
Total Resource Cost Test (TRC) No Adder	0.0416	\$112,995	\$189,901	\$76,906	1.681
Utility Cost Test (UCT)	0.0516	\$140,115	\$189,901	\$49,786	1.355
Rate Impact Test (RIM)		\$380,841	\$189,901	(\$190,940)	0.499
Participant Cost Test (PCT)		(\$27,120)	\$618,877	\$645,997	NA
Lifecycle Revenue Impacts (\$/kWh)				\$0.0000031480	
Discounted Participant Payback (years)				NA	

**Table 27****2009 Low Income Weatherization**

All Measures				AC: IRP 46% LF Decrement	
	Levelized \$/kWh	Costs	Benefits	Net Benefits	Benefit/Cost Ratio
Total Resource Cost Test (PTRC) + Conservation Adder	0.0083	\$85,837	\$750,360	\$664,524	8.742
Total Resource Cost Test (TRC) No Adder	0.0083	\$85,837	\$682,146	\$596,309	7.947
Utility Cost Test (UCT)	0.0083	\$85,837	\$682,146	\$596,309	7.947
Rate Impact Test (RIM)		\$795,946	\$682,146	(\$113,801)	0.857
Participant Cost Test (PCT)		\$0	\$716,024	\$716,024	NA
Lifecycle Revenue Impacts (\$/kWh)				\$0.0000008885	
Discounted Participant Payback (years)				NA	

**Table 28****2009 Non-Residential DSM Portfolio**

	Levelized \$/kWh	Costs	Benefits	Net Benefits	Benefit/Cost Ratio
Total Resource Cost Test (PTRC) + Conservation Adder	0.0873	\$1,289,367	\$1,633,065	\$343,698	1.267
Total Resource Cost Test (TRC) No Adder	0.0873	\$1,289,367	\$1,484,604	\$195,237	1.151
Utility Cost Test (UCT)	0.0459	\$678,399	\$1,484,604	\$806,205	2.188
Rate Impact Test (RIM)		\$1,947,188	\$1,484,604	(\$462,584)	0.762
Participant Cost Test (PCT)		\$610,968	\$1,609,522	\$998,554	2.634
Lifecycle Revenue Impacts (\$/kWh)				\$0.0000045277	

**Table 29****2009 Energy FinAnswer Program**

All Measures				AC: IRP 65% LF Decrement	
	Levelized \$/kWh	Costs	Benefits	Net Benefits	Benefit/Cost Ratio
Total Resource Cost Test (PTRC) + Conservation Adder	0.0817	\$204,294	\$214,058	\$9,764	1.048
Total Resource Cost Test (TRC) No Adder	0.0817	\$204,294	\$194,598	(\$9,696)	0.953
Utility Cost Test (UCT)	0.0761	\$190,360	\$194,598	\$4,238	1.022
Rate Impact Test (RIM)		\$344,728	\$194,598	(\$150,130)	0.564
Participant Cost Test (PCT)		\$13,934	\$174,462	\$160,528	12.520
Lifecycle Revenue Impacts (\$/kWh)				\$0.0000012560	
Discounted Participant Payback (years)				0.88	

**Table 30**

**2009 FinAnswer Express Program**

All Measures				AC: IRP 65% LF Decrement	
	Levelized \$/kWh	Costs	Benefits	Net Benefits	Benefit/Cost Ratio
Total Resource Cost Test (PTRC) + Conservation Adder	0.0636	\$1,065,229	\$1,419,007	\$353,778	1.332
Total Resource Cost Test (TRC) No Adder	0.0636	\$1,065,229	\$1,290,006	\$224,778	1.211
Utility Cost Test (UCT)	0.0280	\$468,195	\$1,290,006	\$821,811	2.755
Rate Impact Test (RIM)		\$1,583,983	\$1,290,006	(\$293,977)	0.814
Participant Cost Test (PCT)		\$597,034	\$1,435,060	\$838,026	2.404
Lifecycle Revenue Impacts (\$/kWh)				\$0.0000009023	
Discounted Participant Payback (years)				4.50	