

Rocky Mountain Power

# Demand-Side Management Annual Report for 2009 - Utah

Rocky Mountain Power Demand Side Management Team  
3/31/2010

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## **Introduction and Executive Summary**

Rocky Mountain Power (the Company), working in partnership with its retail customers and with the approval of the Public Service Commission of Utah (Commission), acquires cost-effective demand-side resources as an alternative to the acquisition of supply-side resources. Demand-side resources assist the Company in most efficiently addressing load growth and contribute to the Company's ability to meet system peak requirements. Company demand-side management (DSM) programs provide participating Utah customers with tools that enable them to reduce or assist in the management of their energy usage, while reducing the overall costs to Rocky Mountain Power's customers. Demand-side resources are a valuable component of Rocky Mountain Power's resource portfolio and are relied upon in resource planning as a least cost alternative to supply-side resources.

Rocky Mountain Power currently offers nine energy efficiency and two load control programs in Utah with costs associated with these programs recovered through a tariff-rider, which is administered through Schedule 193 (DSM tariff rider). Rocky Mountain Power also contributes to the statewide Power Forward campaign and promotes its demand-side management programs to its Utah customers through a communications and outreach campaign intended to increase awareness of and participation in the Company's demand-side management programs, the costs of which are also recovered through Schedule 193.

The results of Rocky Mountain Power's Utah demand-side management activities for the reporting period of January 1, 2009 through December 31, 2009 are summarized in Table 1 on the following page.

**Table 1<sup>1</sup>**

**2009 Total Portfolio Performance (Load Management, Energy Efficiency and Marketing)**

DSM Cost Adjustment Revenues Collected	\$ 36,046,587
Program Expenditures (Excludes Self Direction Credits)	\$ 55,909,613
Total Expenditures Including Self Direction Credits	\$ 58,181,554
MW Under Load Management (Gross at Generation)	155.9
2008 IRP Target for Load Management (Gross at Generation)	147.0
Energy Efficiency First Year Savings MWh/Yr (Gross at Generation)	247,799
Estimated MW Savings from 2009 Energy Efficiency Acquisitions (Gross at Generation)	41.1
2008 Integrated Resource Plan Targets for 2009 - MWh	162,815
2008 Integrated Resource Plan Targets for 2009 - MW	34.9
Estimated MW Savings from Energy Efficiency and Load Management (Gross at Gen)	197.0
Estimated Lifetime MWH Savings from 2009 Energy Efficiency Acquisitions	3,171,825

	PTRC	TRC	UCT	RIM	PCT
Cost Effectiveness (Five Tests)	2.185	1.987	1.949	1.020	9.934
Levelized Cost (\$/kWh)	NA	NA	NA		
Lifecycle Revenue Impact (\$/kWh)	NA				

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

Participation in the load management programs increased between 2008 and 2009 by approximately 52 percent providing the Company with 156 megawatts (at generation) of load under management. First year energy savings between 2008 and 2009 achieved through energy efficiency programs, increased by more than 28 percent.

Overall expenditures increased by 60 percent between 2008 and 2009.

At the end of 2009, the DSM tariff rider balancing account had an unfunded balance of \$ 28.4 million.

<sup>1</sup> Estimated MW Savings from Energy Efficiency reflects project level engineering estimates for MW contributions from Energy FinAnswer, FinAnswer Express, Self Direction and Re-Commissioning Programs. Estimates for MW savings for all other programs are estimated based on aMW contributions multiplied by a capacity contribution factor of 1.88 that is consistent with the DSM resource characteristics selected in the 2008 IRP.

Estimated MW Savings from Energy Efficiency and Load Management programs is a maximum estimate. In order to achieve this level of reduction, both load management programs would have to be dispatched at the precise point in time when temperature and load conditions were at their highest point and assumes all energy efficiency savings had been achieved for the year prior to that point in time.

Estimated lifetime savings of 2009 Energy Efficiency Acquisitions was calculated by multiplying First Year Acquisitions (At Gen) by the weighted average measure life of the portfolio of 12.8 years, no discount was assumed for possible savings degradation over the life of the measures.

Cost Effectiveness Tests – Levelized costs and Lifecycle Revenue Impact calculations were not included at the overall portfolio level due to the inclusion of Load Management programs that do not assume any energy savings and therefore their costs would skew these calculations.

The Company made several filings with the Public Service Commission of Utah during 2009. The filings included proposed modifications to the Home Energy Savings program to address insulation incentive levels, proposed modifications to the Energy Star New Homes and Cool Cash programs, proposed an outreach and communications program for Utah demand-side management programs, and a filing requesting an increase in the DSM tariff rider collection rate to more closely match the rate of anticipated program expenditures and address an unfunded balance in the balancing account. For more information about these filings, please see the Company Filings with the Public Service Commission of Utah section of this report.

In October 2009, the Company initiated process and impact evaluations for the Home Energy Savings, See ya later, refrigerator, Cool Cash, Energy Star New Homes, Energy FinAnswer, FinAnswer Express, Re-Commissioning and the Self Direction programs for program years 2006 to 2008. The evaluation work is being completed by an independent evaluator, The Cadmus Group, which was selected through a competitive bidding process. Draft and final reports for the evaluations are expected to be completed and available for review and comment in the second quarter of 2010.

The demand-side management programs offered by the Company in Utah were cost effective based on the Utility Cost (UCT) and the Total Resource (TRC) cost tests. Overall, Rocky Mountain Power's Utah DSM portfolio was cost effective under all five cost effectiveness tests. On an individual program basis, only the commercial and industrial programs and load management programs satisfied the ratepayer impact test (RIM).

2009 demand-side management acquisitions at the portfolio level produced more than \$106 million in Net Benefits over the life of the savings on a UCT basis and more than \$108 million in net benefits on a TRC basis.

## **2009 Performance and Activity**

Program and Sector level results for 2009 are provided in the following table<sup>2</sup>.

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<sup>2</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 9.72 percent for residential, 9.35 percent for commercial and 6.33 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.

**Table 2**

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

<b>Program</b>	<b>Units</b>	<b>kW/Yr (at site)</b>	<b>kW/Yr Savings (at gen)</b>	<b>Program Expenditures</b>
Cool Keeper (114)	98,134	102,891	112,892	\$ 9,816,533
Irrigation Load Control (96 and 96A)	515	40,490	43,053	\$ 2,731,809
<b>Total Load Management</b>	<b>98,649</b>	<b>143,381</b>	<b>155,945</b>	<b>\$ 12,548,342</b>
<b>Program</b>	<b>Units</b>	<b>kWh/Yr Savings (at site)</b>	<b>kWh/Yr Savings (at gen)</b>	<b>Program Expenditures</b>
Low Income Weatherization (118)	715	1,119,227	1,228,016	\$ 162,352
Cool Cash (113)	1,338	922,020	1,011,640	\$ 499,543
Energy Star New Homes (110)	2,077	3,362,115	3,688,913	\$ 1,446,391
Refrigerator Recycling (117)	16,359	21,518,205	23,609,775	\$ 2,339,080
Home Energy Savings (111)	320,893	85,973,283	94,329,886	\$ 25,439,423
<b>Total Residential</b>	<b>341,382</b>	<b>112,894,850</b>	<b>123,868,230</b>	<b>\$ 29,886,788</b>
Energy FinAnswer (125)	32	11,708,178	12,803,244	\$ 2,531,730
FinAnswer Express (115)	492	29,664,601	32,439,131	\$ 3,258,274
Recommissioning (126)	31	9,869,355	10,792,436	\$ 947,450
Self Direction	3	523,490	572,452	\$ 52,810
<b>Total Commercial</b>	<b>558</b>	<b>51,765,624</b>	<b>56,607,263</b>	<b>\$ 6,790,265</b>
Energy FinAnswer (125)	38	46,976,997	49,950,641	\$ 5,215,301
FinAnswer Express (115)	85	8,023,882	8,531,794	\$ 775,534
Self Direction (192)	10	8,314,577	8,840,890	\$ 71,720
<b>Total Industrial</b>	<b>133</b>	<b>63,315,456</b>	<b>67,323,324</b>	<b>\$ 6,062,555</b>
<b>Outreach &amp; Communications + Class 4</b>				
Power Forward				\$ 50,172
Outreach and Communication Campaign				\$ 571,491
<b>Total Energy Efficiency</b>		<b>227,975,930</b>	<b>247,798,817</b>	<b>\$ 43,361,271</b>

**Total System benefit Expenditures - All Programs \$ 55,909,613**

Self Direction Credits \$ 2,271,941

**Total Utah Program Expenditures \$ 58,181,554**

## **Major Trends and Activities:**

In 2009, the Company realized substantial increases in both load management and energy efficiency acquisitions. Overall, first-year energy savings from energy efficiency programs increased more than 28 percent compared to 2008, while the load management programs delivered 52 percent more kW under control in 2009, a product of introducing a dispatchable control option (Schedule 96A) to the Irrigation Load Control program's scheduled control option (Schedule 96). The main growth in energy efficiency was driven by the Home Energy Savings program activity. If the impact of the Home Energy Savings program is removed from both 2008 and 2009, then the remaining energy efficiency programs delivered 2 percent more first year energy savings than the same programs in 2008, in spite of the slow economy.

At a sector lever, the residential sector realized 67 percent higher savings on a kWh/year basis compared to 2008. However with the impact of Home Energy Savings removed (again, both for 2008 and 2009), the remaining programs acquired 3 percent less first year savings. The combined commercial and industrial sectors delivered approximately 3 percent more kWh/year savings than in 2008.

Expenditures related to program delivery increased in 2009 as compared to 2008. Overall portfolio expenditures increased by 61 percent compared to 2008, with load management expenses increasing 58 percent, energy efficiency programs increasing 60 percent and the implementation of the DSM Outreach and Communications campaign adding approximately \$570,000 to overall expenditures. At a sector level, residential energy efficiency expenditures increased by 135 percent while expenditures for combined commercial and industrial sectors decreased by 8 percent. The entire increase in residential energy efficiency expenditures is related to the increase in the Home Energy Savings program activity. With the impact of the Home Energy Savings program removed, residential expenditures (for the remaining programs) decreased 9 percent and overall energy efficiency expenditures decreased 8 percent.

The most visible program activity in 2009 was the substantial increases in attic insulation projects receiving incentives from the Home Energy Savings program. Most of these projects were in locations where the customer was also eligible for Questar Gas Company incentives. This increased activity was driven by increased contractor availability, declining customer insulation project costs, and utility program incentive amounts. To realign incentives with updated market costs and the intended program objectives (customer contributes to the financial cost of the insulation project), the Company filed for an adjustment on March 23, 2009. Changes to incentive levels became effective on June 1, 2009. During 2009, more than 51 million square feet of attic insulation was installed and was a primary driver for the 225 percent increase in Home Energy Savings program expenses when compared to 2008.

## **Cost Effectiveness:**

Consistent with the requirements outlined in the Commission orders in Docket No. 09-035-27, the Company provides cost effectiveness results utilizing the five Cost Effectiveness Tests;

1. PacifiCorp Resource Cost Test (PTRC) which includes a 10% additional benefit for demand-side resources. This is consistent with the Northwest Power Planning and Conservation Act and other states that consider benefits from less quantifiable attributes of DSM resources.
2. Total Resource Cost Test (TRC)
3. Utility Cost Test (UCT)
4. Ratepayer Impact Test (RIM).
5. Participant Cost Test (PCT)

The results for each test are provided at several levels:

1. Overall Portfolio level, combined look of all programs, i.e. energy efficiency and load management programs
2. At individual resource type levels. i.e. combined energy efficiency programs and separately for the combined load management programs
3. At customer sector levels for the energy efficiency programs, i.e. all residential programs and all non-Residential energy efficiency program portfolios
4. Individual Program level
5. Measure or Measure Group level within certain programs

All portfolios and programs had a UCT benefit/cost ratio of more than 1.0. Overall, the portfolio generated more than \$106 million in Net Benefits on a UCT basis and more than \$108 million in Net Benefits on a TRC basis. The entire DSM program portfolio was cost effective across all five Cost Effectiveness Tests. At the segment and program levels, four of the five tests produced a benefit/cost ratio greater than 1.0 (residential programs and residential portfolio did not pass the ratepayer impact test).

Results of the cost effectiveness tests are included in the summary overview for each program, and there is a cost effectiveness discussion in each program section as well. Further details including key inputs and assumptions for each of the cost effectiveness tests as well as measure group cost effectiveness results are provided in Appendix 1 of this report.

## **Program Evaluation**

As required in the Commission orders issued on October 7, 2009 and December 21, 2009 in Docket No. 09-035-27, Rocky Mountain Power provides a timeline for when evaluations will be completed for each program offered in the state. The Program Evaluation Timeline (Table 3 below) provides an outline of evaluations for each program in Rocky Mountain Power's Utah DSM portfolio.

**Table 3**

<b>Program</b>	<b>Evaluation Type</b>	<b>Status</b>	<b>Anticipated Year Complete</b>	<b>Program Year(s) Evaluated</b>	<b>Evaluator</b>
<b>Cool Cash</b>	Process and Impact	In Process	2010	2006 - 2008	The Cadmus Group
<b>Energy Star New Homes</b>	Process and Impact	In Process	2010	2006 - 2008	The Cadmus Group
<b>Home Energy Savings</b>	Process and Impact	In Process	2010	2006 - 2008	The Cadmus Group
<b>Low Income Weatherization</b>	Impact	Planning	TBD	TBD	TBD
<b>See Ya Later Refrigerator</b>	Process and Impact	In Process	2010	2006 - 2008	The Cadmus Group
<b>Energy FinAnswer</b>	Process and Impact	In Process	2010	2006 - 2008	The Cadmus Group
<b>FinAnswer Express</b>	Process and Impact	In Process	2010	2006 - 2008	The Cadmus Group
<b>Recommissioning</b>	Process and Impact	In Process	2010	2006 - 2008	The Cadmus Group
<b>Self Direction</b>	Process and Impact	In Process	2010	2006 - 2008	The Cadmus Group
<b>Cool Keeper</b>	Impact	Complete	Annual	Annual	Company Evaluated (Pay for performance contract)
<b>Irrigation Load Control</b>	Impact	Complete	Annual	Annual	Company Evaluated

In October, 2009, the Company initiated process and impact evaluations for the Cool Cash, Energy Star New Homes, Home Energy Savings, See ya later, refrigerator, Energy FinAnswer, FinAnswer Express, Re-Commisioning and the Self Direction programs for program years 2006 – 2008. The draft results of these evaluations are expected to be available during the second quarter of 2010. Findings from these evaluations will be key inputs to on-going program design and modification as well as inputs to future cost effectiveness determinations.

Rocky Mountain Power will provide copies of the draft and final evaluation reports to the Commission staff as well as post them on the Company web site at <http://www.pacificorp.com/es/dsm.html> for public viewing when completed. The DSM Advisory Group will also be notified when the draft reports are available for review and comment.

### **Plans for 2010**

Rocky Mountain Power has filed revisions to the Self-Direction program proposing to combine cap types and increase the overall annual bill credit cap to accommodate the faster retirement of customer credits driven by retail sales and a higher DSM tariff rider collection rate.

The Company will complete the process and impact evaluations as outlined in the previous section during the second quarter of 2010. Evaluation results will be reflected in next year's Demand-Side Management Annual Report.

Rocky Mountain Power intends to request modifications to the Home Energy Savings program and the FinAnswer Express program to reflect changing market conditions and changing standards. In addition, several other programs will undergo routine reviews to see if changes are warranted. These include the Energy FinAnswer and Re-Commissioning programs. Finally, several energy efficiency delivery contracts are scheduled for re-procurement in 2010 for program delivery beginning in 2011.

The Company is considering proposing changes to the irrigation load management program, combining the two programs (Schedules 96 and 96a) into one tariff for ease of future administration. Other minor administrative changes may be proposed at the same time, such as reevaluating the need to include the first two weeks in September in the control period.

An update to the *2007 Assessment of Long-Term System Wide Potential for Demand-Side and Supplemental Resources*<sup>3</sup> is scheduled to begin in 2010. The update will be used in the development of the 2011 Integrated Resource Plan and support DSM program management and resource valuation.

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<sup>3</sup> This report was filed with the Public Service Commission of Utah on September 15, 2008 in Docket No. 08-035-56.

## **Advisory Group Meetings**

### **Meetings with the DSM Advisory Group:**

#### **April 6, 2009**

Topics included; 2008 program activity highlights, review of proposed changes to 1995 DSM Performance Standards methodology, DSM tariff rider analysis, filings in progress and stimulus activity.

#### **June 9, 2009**

Topics included; history of the DSM tariff rider, program savings and expenses, changes since the DSM tariff rider analysis provided in April 2009, insulation expense forecast, revised tariff rider analysis and timing of recovery.

#### **September 21, 2009**

Topics included: Review of the year 1 action plan of the strategic outreach and communications program for DSM, updated insulation activity forecast for the Home Energy Savings program and an update on American Recovery and Reinvestment Act funding for a State Energy Program appliance program.

#### **October 28, 2009**

Topics included: review of the outreach and communications plan creative material, self direction annual cap adjustment, proposed changes to the Home Energy Savings program, code driven changes for the FinAnswer Express program, Commercial solar hot water heating.

### **Technical Conferences:**

#### **July 14, 2009**

Topic: Scheduling Conference to determine the proceeding schedule of issues raised in Docket No. 09-035-T08.

#### **September 9, 2009**

Topic: Scheduling Conference to determine the proceeding schedule of Phase II issues in Docket No. 09-035-T08.

#### **October 14, 2009 – Docket No. 09-035-T08 Phase II Conference One**

Topics included: overview of programs funded through Schedule 193, review of Company's expense accounting, overview of DSM program relationship with the Integrated Resource Plan.

#### **November 3, 2009 – Docket No. 09-035-T08 Phase II Conference Two**

Topic: To review and discuss modifications to Schedule 192 terms and conditions.

## Outreach and Communications

In order to increase awareness of and participation in Rocky Mountain Power's DSM programs, in early 2009 Rocky Mountain Power proposed and the Commission approved<sup>4</sup> the implementation of an overarching Communications and Outreach program. The objectives of this program were developed in collaboration with the Utah DSM Advisory Group over a six month period. The overarching program objectives are to promote customer conservation through energy efficiency education and increase customer awareness of and participation in the Company's DSM programs. At its highest level, the program is intended to complement existing program-specific advertising and messaging helping to pull all DSM communications together into a more cohesive and consistent conservation message. The program is also intended to deliver the residential rate structure education program ordered by the Commission in Docket No. 07-035-93<sup>5</sup>.

In order to create this level of awareness, a cohesive, consistent and integrated communications platform was proposed. The platform consists of a mix of marketing tools and channels including typical media such as television, radio and print as well as public outreach and public affairs communications, online and interactive portals, community involvement and social networking.

The Company proposed program funding not to exceed \$1.5 million a year over an initial three year period, during which time its effectiveness will be monitored with a final assessment performed at the end of the three year period. Funding for this program is provided by the demand-side management cost adjustment tariff rider (Schedule 193).

The increased awareness of and participation in the Company's DSM programs will benefit all customers, however savings achieved as a result of the program will not be quantified and directly attributed to the program due to the difficulty and costs of such a measurement and allocation. As such, its effectiveness in increasing awareness and participation will be assessed through pre and post campaign research and surveys, seeking to test whether the program has increased general consumer awareness and likelihood to take action. The cost effectiveness of the program is evaluated in terms of its effect on the cost-effectiveness of the overall DSM portfolio. The program's costs are included with all other DSM program costs at the portfolio or summary level in assessing the program's effect to the cost effectiveness of the portfolio as a whole. Throughout the initial three year period of the communications and outreach program, the Company will maintain the cost effectiveness of the overall DSM portfolio, inclusive of the "cost only" Outreach and Communication program expenses.

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<sup>4</sup> Commission order in Docket No. 09-035-36 dated June 11, 2009 (Company file date May 11, 2009)

<sup>5</sup> Commission order in Docket No. 07-035-93 dated November 6, 2008.

In addition to the program-specific advertising and overarching outreach and communications campaign, the Company is actively involved in event based outreach and communications to support programs and initiatives. Some of the event and activities from 2009 are listed below:

**February:**

- 10<sup>th</sup>...Utah Energy Efficiency Alliance Workshop, *Sandy*
- 19<sup>th</sup>...Utah Chapter of the Association of Energy Engineers, *Sandy*

**April:**

- 7<sup>th</sup>...Salt Lake Sustainable Building Conference Agenda, *Salt Lake City*
- 22<sup>nd</sup>...OC Tanner Earth Day Fair, *Salt Lake City*

**May:**

- 9<sup>th</sup>...2009 Live Green Sustainable Living Festival (Green Day), *Salt Lake City*
- 14<sup>th</sup>... Salt Lake Chamber Expo Marketplace, *Salt Lake City*

**September:**

- 10<sup>th</sup>...Green Building Expo, *Salt Lake City*
- 25<sup>th</sup>...American Institute of Architects (AIA) Utah Design Conference, *Salt Lake City*

**October:**

- 9<sup>th</sup>... Green Building Seminar, *Logan*

**December:**

- 10<sup>th</sup>... Utah Manufacturers Association (UMA) Presentation and Luncheon, *Salt Lake City*

In addition to the outreach events items listed above, the Company publishes regularly scheduled customer newsletters and business publications where conservation is featured. Also, a Thank You ad is published annually in local newspapers recognizing commercial and industrial customers who have completed energy saving projects the previous year.

## **Company Filings with the Public Service Commission of Utah**

The Company made several filings and participated in proceedings with the Commission regarding DSM during 2009. The dates of the filings and proceedings with brief descriptions are provided below.

### **November 26, 2008 – Docket No. 08-035-T09 Schedule 114 (Cool Keeper)**

The Company proposed adding controllable programmable thermostats for commercial participants as an alternative incentive to the “thank you” bill credit. The filing also proposed a participation opt-out provision to aide in managing annual program attrition. An amended version of the original proposal was filed by the Company on January 8, 2009, approved by the Commission on January 28, 2009 and became effective on January 16, 2009.

### **December 18, 2008 – Docket No. 08-035-T10 Schedule 96A (Irrigation Load Control)**

The Company proposed changes to the Irrigation Load Control program tariff. The changes included introduction of a dispatchable control program option. The proposal was approved on March 17, 2009 with an effective date of February 27, 2009.

### **March 23, 2009 – Docket No. 09-035-T04 Schedule 111 Home Energy Savings Program**

The Company filed proposed changes to the Home Energy Savings program incentive levels for insulation measures. After a hearing regarding this matter, modified incentive levels were approved on April 27, 2009 with an effective date of June 1, 2009.

### **April 7, 2009 – Docket No. 09-035-T05 Schedule 113 Evaporative Cooling and Air Conditioning Incentive Program (Cool Cash)**

Several tariff modifications were proposed in this filing, including clarified definitions for new versus replacement evaporative cooling equipment, added dealer incentives for evaporative measures and an increase to the incentive limit per qualifying residence from 1 to 2 for central air conditioning or evaporative cooling units. Changes became effective May 7, 2009.

### **April 27, 2009 – Docket No 09-035-27 Utah DSM Performance Standards**

In Docket No. 07-035-T04, the Commission directed the Company, Division of Public Utilities (Division) and the DSM Advisory Group to develop and submit for Commission consideration recommendations concerning the DSM design, approval, implementation and evaluation processes. In response to the Commission’s order, the Company, the Division of Public Utilities and the DSM Advisory Group prepared a collaborative report on Utah Demand-Side Management and Other Resources Benefit and Cost Analysis Guidelines and Recommendations. This document was designed to provide the Company, Utah regulators and other interested parties updated guidelines and standards to assess the cost effectiveness and prudence of current and proposed

demand-side management resources, including small-scale renewable resources. The Commission approved the recommendations in the report on October 7, 2009.

**May 12, 2009 – Docket No. 09-035-36 Strategic DSM Communications and Outreach Program**

The Company proposed to initiate a strategic Communications and Outreach program to increase awareness of and participation in Company demand-side management programs. The proposal included a three year timeline of activities, events and media campaigns for implementation of the program. The total requested budget was \$1.5 million per year over the three years. The program was approved on June 11, 2009. Subsequent filings were made in 2009 in this docket pertaining to action planning, initially a short-term action plan (filed June 25, 2009) and later a detailed first year action plan (filed October 8, 2009).

**June 11, 2009 – Docket No. 09-035-T08 Schedule 193 DSM Cost Adjustment**

On June 11, 2009, the Company filed to adjust the average Schedule 193 collection rate from an average of 2.1 percent to 6.2 percent in order to recover ongoing program costs and to retire an uncollected balance in the DSM balancing account within 12 months. On August 2, 2009 the Company filed a multi-party stipulated agreement that increased collections to an average rate of 4.6 percent, and deferred issues raised by other parties in the matter to a Phase II proceeding under the same Docket. The collection rate adjustment was effective on September 1, 2009.

**June 24, 2009 – Docket No. 09-035-T10 Schedule 110 Energy Star New Homes Program**

The Company filed to consolidate program tiers for the single family and multi-family offer, increase incentives for select tiers and increase lighting equipment requirements as well as various administrative changes. The modifications proposed in this filing were approved with an effective date of July 24, 2009.

**August 3, 2009 – Advice 09-13 Schedule 111 Home Energy Savings**

The Company filed for implementation of a flexible tariff format for the Home Energy Savings program. The proposed modifications were approved, reflecting Commission ordered modifications intended to provide for adequate regulatory review of program changes, effective September 1, 2009.

**November 2, 2009** – The Company filed a DSM Balancing Account Analysis and forecast of 2010 DSM activities as directed by the Commission in the order in Docket No 09-035-T08.

## **2009 Performance Compared to Forecast**

In 2009, the Company delivered against Utah targets of 162,815 MWh/year of energy efficiency and 147 MW of load management. These targets were established by the selection of priority DSM resource in the Company's 2008 Integrated Resource Plan (IRP).

The Company exceeded these targets with energy efficiency acquisitions of 247,799 MWh/year and 152 MW of load management resources under program control.

Beginning in 2010, the Company will utilize this section of the DSM Annual Report to compare annual program performance results to the program forecasts or targets filed with the Commission each November. The basis for the November forecast will continue to be informed in large part by the Integrated Resource Plan (IRP), however the forecast may vary in any given year due to factors such as program availability and opportunistic market conditions believed to exist at the time the forecast is established and filed. For 2010, these targets will be consistent with the targets filed with the Commission on November 2, 2009.<sup>6</sup>

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<sup>6</sup> Refer to Docket No 09-035-T08

## Load Management Programs and Activity

Rocky Mountain Power currently offers two load management programs, the Irrigation Load Control program for agricultural customers and the Cool Keeper air conditioner load management program for residential and small commercial customers. Through these programs the Company has the ability to manage a percentage of end use loads during the summer peak load period helping balance system requirements as needed. The flexibility of the load management resources vary between programs and control options and range from fixed pre-scheduled and day ahead noticing or scheduling of participating irrigation loads to on-call day of dispatch control of the air conditioner loads. The programs are designed to work in concert with customer needs, providing advance notice to business customers of when events are scheduled to occur and operation of the control in a manner that minimizes business disruptions and impacts to customer comfort. In addition to these direct load control programs, Rocky Mountain Power participates in the state of Utah's PowerForward program, a stoplight public plea demand reduction program that relies on public announcements to inform Utahns when energy demand and costs are at acceptable levels (Green), are becoming an issue (Yellow), or have reached a critical point (Red). The warning encourages energy consumers in the state to take increasing conservation action when the local conditions are in Yellow or Red stages.

A summary of the Load Management portfolio results is included in the following table.

**Table 4**

### 2009 Load Management Portfolio Performance

kW Under Control (Gross - At Gen)	155,945
Total Expenditures	\$ 12,548,342
Incentives Paid	\$ 2,837,199

	PTRC	TRC	UCT	RIM	PCT
Program Cost Effectiveness	2.212	2.011	1.484	1.484	NA
Levelized Cost (\$/kWh)	NA	NA	NA		
Lifecycle Revenue Impact (\$/kWh)	NA				

Note: No energy savings are associated with load management programs. Therefore it is not appropriate to calculate levelized costs or lifecycle revenue impact.

## **Irrigation Load Control (Schedule 96 and 96A)**

Available since 2005, Utah's irrigation load management program provides participating agricultural customers on Schedule 10 load control service credits in exchange for the scheduled or on-call day ahead dispatchable curtailment of their irrigation pumping loads during summer afternoons, May 25 through September 15 annually. The scheduled control option is achieved through the use of programmable timers installed on a participating customers pump motor that disconnects power to the motor during their fixed and pre-determined curtailment schedule. Curtailment schedules vary from one to four interruptions per week with each interruption lasting three to six hours. Participants are paid an annual load control service credit of \$5.41 to \$11.19 per kilowatt of curtailment loads depending on the curtailment schedule the customer selects.

Under the on-call day ahead dispatchable control option irrigation, equipment is set up with an advanced two-way control system. The two-way conductivity allows for dispatch of curtailment events by the Company as well as provides customers the ability to use the control equipment to manage regular irrigation turns via the Internet or phone when not under Company control. Customers who participate are notified 24 hours in advance of control events and have the choice to opt-out of up to five dispatch events per season. Annual load service credits for this program are paid on a graduated basis depending on total program participation. In 2009 load service credits were \$26 per kilowatt of a grower's participating loads.

For the fixed scheduled control option, there are no customer costs to participate in the program for pump sizes of 25 horse power and above. Participating pumps less than 25 horse power in size incur a one-time \$170 set-up fee upon initial enrollment.

For the on-call day ahead dispatchable control option, pump sizes must meet a minimum motor size requirement of 10 horse power to qualify and there are no customer costs to participate. Growers may, however, experience reductions in their participation credits for 1) non-dispatch related air time communication charges for communication transactions exceeding 70 per month, and 2) charges associated with opting out of a control event, both reductions would be netted out of a grower's annual load service credits at the end of each season before issuance.

Summary program performance, expenditures, participation and cost effectiveness results are provided in the following table.

**Table 5**

**2009 Irrigation Load Control Program Performance**

MW Under Control (Gross at Gen)	43.1
Expenditures - Total	\$ 2,731,809
Participation Credits	\$ 1,115,394
Program Operations Expense	\$ 1,616,415
Participation (Customers)	165
Participation (Sites)	515

	PTRC	TRC	UCT	RIM	PCT
Program Cost Effectiveness	2.120	1.930	1.140	1.140	NA
Levelized Cost (\$/kWh)	NA	NA	NA		
Lifecycle Revenue Impact (\$/kWh)	NA				

**Program Reporting**

Program results reflect the measured actual dispatch and impact on the system during load control events. The kilowatt level available for dispatch is based upon historical analysis of usage for each participating site. The program results reflect the combined available reductions from the fixed scheduled control option program (Schedule 96) and the on-call day ahead dispatchable control option program (Schedule 96A).

**Plans for 2010**

Company may propose changes to the irrigation load management program, combining the two programs (Schedules 96 and 96a) into one tariff for ease of future administration. Other minor administrative changes may be proposed at the same time such as reevaluating the need to include the first two weeks of September in the control period.

## **Cool Keeper (Schedule 114)**

The Cool Keeper program is an air conditioner direct load management program targeting Utah residential and qualifying commercial customers (equipment size equal to or less than 7.5 tons) who cool their homes and businesses with electric central air conditioners. On select summer weekday afternoons when electricity demand is at its highest, the Cool Keeper control equipment installed on a participating customer's air conditioner is sent a signal to cycle the operation of the air conditioner's compressor "off and on" for brief periods each hour in coordination with the air conditioners of other participating customers. Over seventy percent of program participants don't notice these slight interruptions in cooling and ninety-eight percent report no meaningful temperature changes. For their participation customers receive an annual "thank you" bill credit of either \$20 or \$40 per air conditioner being controlled depending on the size of the air conditioner. Commercial customers have the option of receiving a SuperStat programmable thermostat in lieu of the "thank you" bill credit as an incentive for their participation. Like the direct control unit or switch used to control equipment for the majority of the program, the SuperStat programmable thermostat is capable of receiving remote signals used to initiate control events but also has the added feature of doubling as an intelligent programmable thermostat customers can use to effectively manage their heating and cooling systems year around.

Implemented in 2003, the pay-for-performance based program sought to acquire 90 megawatts (at site) of dispatchable residential and qualifying commercial air conditioning participation by 2007 and contractually maintain participation through 2013, at which time program delivery would be reviewed and competitively re-procured. The 90 megawatt objective was based on an initial assessment of qualifying equipment in the Utah marketplace and program penetration rates of other similar and successful air conditioner load management programs in other jurisdictions.

Having met the initial 90 megawatt acquisition target, in 2007 the Company re-evaluated the program's potential under its current design and, working with the program delivery vendor sought to add an additional 30 megawatts to the program by 2010. With the Company's IRP continuing to show a need for capacity resources in Utah beyond 2013, the Company continues to seek ways to educate customers on the importance and value of programs such as Cool Keeper and to grow participation.

Program results for 2009 are provided in the following table.

**Table 6**

**2009 Cool Keeper Program Performance**

kW Under Control (Gross - At Gen)	112,892
Total Expenditures	\$ 9,816,533
Incentives Paid	\$ 1,721,805
Total Participation	98,134
Residential	97,664
Commercial	470

	PTRC	TRC	UCT	RIM	PCT
Program Cost Effectiveness	2.215	2.026	1.199	1.199	NA
Levelized Cost (\$/kWh)	NA	NA	NA		
Lifecycle Revenue Impact (\$/kWh)	NA				

**Major Trends and Activities**

At the end of 2009, participation was 18 percent higher than in 2008 with more than 98,000 units enrolled in the program providing more than 112 MW of temperature dependent load under control.

**Cost Effectiveness**

The 2009 Cool Keeper program was cost effective from four of the five cost effectiveness tests (there are no participant costs, so results of that test were not calculated). Appendix 1 provides detailed inputs used in the cost effectiveness analysis of this program as well as the calculation of reported savings.

**Program Evaluation**

The program is implemented by a third party under a pay for performance contract with the program delivery vendor, Converge. The contract includes a robust measurement and verification protocol that includes annual evaluation of program delivery utilizing information derived from a statistically relevant and representative set of metered control units. The data from the metered units are used to extrapolate results of the control network at large and pay the vendor for program performance. In addition, the program maintenance process assesses the proper installation and operation of 20 percent of all installations on an annual basis, ensuring that all load control equipment is site inspected on a rotational 5 year basis. Results of the measurement and verification

and maintenance processes are utilized for annual contract management and for program reporting and tracking.

### **Plans for 2010**

Rocky Mountain Power will seek to increase the controllable load made available through the program by continuing to market the program to customers and by educating customers about the impact and benefits realized through program participation.

## **Power Forward**

Rocky Mountain Power, through Schedule 193, provides \$50,000 annually in support to the state of Utah PowerForward program. PowerForward is a public-private partnership sponsored by the Utah Department of Environmental Quality and Utah's electric utilities. The mission of the PowerForward campaign is to promote an ethic of energy conservation and efficient use of electricity in Utah homes, businesses, and state-owned buildings.

At the heart of the campaign is the PowerForward alert system. This color-coded system notifies Utah citizens and businesses on days when additional conservation measures are needed. The graduated green, yellow to red condition alerts encourage energy consumers in the state to take increasing conservation action as energy capacity requirements and market costs for energy increase.

No savings are directly attributed to the Company's participation in the program; however, program expenditures are funded from DSM tariff rider. The program costs are included as costs in the analysis of cost-effectiveness of the overall DSM portfolio but are not included in either the load management or energy efficiency portfolio looks.

## Energy Efficiency Programs and Activity

Energy efficiency improvements deliver sustainable energy savings by improving the efficiency of equipment such as motors, lighting and cooling equipment. Energy efficiency is also delivered through improved weatherization of existing buildings, improving the design features of new facilities and ensuring they are constructed to exceed code. In the industrial sector, improvements in industrial equipment or processes can also improve energy utilization and deliver long term energy efficiency resources. Replacement of existing functional equipment, replacement of equipment at the end of its useful life and improvement opportunities all provide opportunities to deliver energy efficiency resources. While each type of opportunity has unique challenges, improvements in these areas all deliver long term energy savings over the life of the installed equipment.

To deliver resources from these different opportunities, the Company offers nine energy efficiency programs; five targeted to residential customers and four targeted to business customers. While customers may receive only one incentive per project or piece of equipment, the programs are designed to work in a coordinated fashion and provide complementary services (i.e. recycle an existing refrigerator after buying a new Energy Star model) or different incentive options (i.e., Energy FinAnswer incentives at the time a project is completed or Self Direction bill credits received over time). Some programs or program features are specifically designed to capture lost opportunities (Energy Star New Homes and the Design Assistance provision in Energy FinAnswer), while other programs target retrofit or replacement opportunities in existing structures (i.e., FinAnswer Express and Home Energy Savings).

Results for the 2009 Energy Efficiency Portfolio are presented in the following table.

**Table 7**

### 2009 Energy Efficiency Portfolio Performance

System Benefit Expenditures (Excludes Self Direction Credits)	\$ 43,361,271
Total Expenditures Including Self Direction Credits	\$ 45,633,212
Energy Efficiency First Year Savings MWh/Yr (Gross at Generation)	247,798,817

	PTRC	TRC	UCT	RIM	PCT
Portfolio Cost Effectiveness	2.163	1.967	2.648	0.807	8.796
Levelized Cost (\$/kWh)	\$ 0.0558	\$ 0.0558	\$ 0.0414		
Lifecycle Revenue Impact (\$/kWh)	\$ 0.0000960				

## Residential Energy Efficiency Programs and Activity

### Cool Cash (Schedule 113)

The residential Cool Cash program provides incentives for the purchase, best practice installation, and proper sizing of high efficiency unitary electric and evaporative cooling equipment. Incentives are provided to both end use customers and installing contractors. The program has been in operation since 2003 and was relatively unique among Rocky Mountain Power's energy efficiency programs, requiring annual approval by the Commission. This design was originally employed to better manage expectations among installing dealers. In 2009, the Commission approved the continuous operation of this program in Docket No. 09-035-T05. Qualifying equipment and incentive levels are adjusted as needed to remain relevant with evolving equipment standards and further improve program performance. The program is delivered by Nexant, a third party program administrator under contract by the Company to manage trade ally education and participation, assist in the evolution of qualifying technologies, and process customer incentive applications.

Program results for 2009 are provided in the following table.

**Table 8**

#### 2009 Cool Cash Program Performance

kWh Savings 2009 (Gross - At Gen)	1,011,640
Total Expenditures	\$ 499,543
Incentives Paid (Includes Customer Incentives and Dealer Incentives)	\$ 372,975

	PTRC	TRC	UCT	RIM	PCT
Program Cost Effectiveness	2.530	2.300	1.125	0.694	NA
Levelized Cost (\$/kWh)	\$ 0.0765	\$ 0.0765	\$ 0.1564		
Lifecycle Revenue Impact (\$/kWh)	\$ 0.000003688				

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

**Table 9**

**Cool Cash Program Participation**

	Units	kWh/Year Savings (at Site)
Evaporative Cooling - Replacements	140	169,680
Evaporative Cooling - New	36	43,632
Evaporative Cooling - Premium Only	67	81,204
Evaporative Cooling - Premium whole house ducted system	8	9,696
Central Air Conditioning - Sizing + TXV	718	190,270
Central Air Conditioning - Charge + Airflow	737	65,593
Central Air Conditioning - 15+SEER/12.5EER	955	361,945
Totals	2,661	922,020

## Major Trends and Activities

Participation and savings for 2009 were 1 percent higher than in 2008, while program expenses were 5 percent lower than in 2008. According to market participants, residential air conditioning and evaporative cooling industry sales were down approximately 40 percent compared to 2008.

The Company proposed changes to the Cool Cash program in Advice Filing 09-05 on April 7, 2009. The primary changes included:

- Elimination of the annual sunset date;
- Clarification of the language describing New and Replacement evaporative equipment;
- Addition of dealer incentives for evaporative measures;
- Addition of a premium evaporative measure (in addition to premium ducted systems);
- Increased incentives for premium whole house evaporative systems;
- Increased the limit for incentives from one to two per household; and
- Made several clarifications of the terms and conditions for participation and timelines for measurement and verification activities.

The proposed changes were approved by the Commission effective May 7, 2009.

The Program is marketed as the Cool Cash Incentive Program, with the primary focus on training existing equipment dealers and installers to influence the purchasing decisions of end-use customers who are considering adding or replacing cooling equipment. The program helps customers understand the increasing availability of alternatives to compressor based cooling equipment, specifically evaporative technology. For customers who have made a decision to install compressor based cooling, the program focuses on higher efficiency equipment, sizing and best practices installations. Before and during the cooling season, regularly scheduled webinars are utilized to inform participating dealers about the program and are followed by field visits to the dealers and distributors within the Utah market to obtain signed participation agreements and provide straightforward, customer-facing marketing brochures intended for end-use customers.

Overall marketing is multifaceted and includes complementary initiatives to garner the interest of potential buyers of both evaporative cooling systems and central air-conditioning equipment. Customer marketing material focuses on non-electrical cooling options and the benefits of both evaporative cooling and high-efficiency central air-conditioning equipment. All messages are carefully crafted to avoid stimulating additional sales of baseline-efficiency central air-conditioning equipment. The program also utilizes various communication vehicles to reach out to the dealer community and residential population. Among others, these include:

- Program updates in the Rocky Mountain Power monthly newsletter provided to customers;
- Updates and links on the Rocky Mountain Power Web site directing customers and participating dealers to program information; and
- Cooperative marketing efforts with dealers and distributors.

Program representatives also attended the most substantial trade and home shows offered in Utah to market the program, refresh customers' awareness of the program and direct them to participating Cool Cash dealers.

### **Cost Effectiveness**

The 2009 Cool Cash program was cost effective from both a utility cost test and total resource cost test perspective. The primary inputs and assumptions were similar to those used in the Advice Filing 09-05, however the analysis utilized the 2008 IRP load shapes and decrement values, and the savings and expenditure amounts reflect 2009 results. Appendix 1 provides detailed inputs used in the cost effectiveness analysis of this program as well as the measure level cost effectiveness results.

Reported savings for the program utilize a per unit deemed savings value which are ex post (evaluated) estimates from the *2006 Evaporative Cooling and Central Air Conditioning Incentive Program*, prepared by Quantec on August 25, 2007.

### **Program Evaluation**

Process and impact evaluations are currently underway for the Cool Cash program for years 2006-2008. The draft results of these evaluations are expected to be available during the second quarter of 2010.

### **Plans for 2010**

As the result of approval of 2009 filing referenced above, the 2010 Cool Cash program will continue throughout the entire year. Operating the program year-round helps to maintain continuous contact with trade allies and also allows better participation from the dealers and installers during their busy spring run on residential cooling equipment. Approximately 30 percent of the annual air conditioning and evaporative cooling business is done from March through May. This will improve participation in the program.

The North American Technician Excellence (NATE) organization will review the program applications and materials to better coordinate the Cool Cash program message for the local dealers and installers. This will better educate the Trade Allies and improve the residential cooling industry beyond the Cool Cash program.

## Energy Star New Homes (Schedule 110)

The Energy Star New Homes program provides incentives for new homes and multi-family units meeting the Rocky Mountain Power specific program requirements outlined in the tariff. In its fourth year, the Energy Star New Homes program has shown success in helping improve building practices in the state of Utah. The program is delivered through Ecos Consulting, a third party administrator hired by the Company. To help ensure homes eligible for program incentives exceed current energy code by at least 15 percent, the program is typically re-assessed on an annual basis and any changes necessary are filed with the Commission for review and approval.

Program results for 2009 are provided in the following table.

**Table 10**

### 2009 Energy Star New Home Program Performance

kWh Savings 2009 (Gross - At Gen)	3,688,913
Total Expenditures	\$1,446,391
Incentives Paid	\$ 656,375

	PTRC	TRC	UCT	RIM	PCT
Program Cost Effectiveness	1.205	1.095	1.128	0.544	47.985
Levelized Cost (\$/kWh)	0.0874	0.0874	0.0849		
Lifecycle Revenue Impact (\$/kWh)	\$0.000002677				
Discounted Participant Payback (Years)	0.16				

Details of 2009 measure level participation are provided on Table 9 on the following page.

**Table 11**

Energy Star New Homes Participation	2009 Totals	
		kWh/Yr
		Savings
<b>Homes</b>	Units	(at Site)
Homes from 2007 Tariff	6	9,738
Tier 1	914	1,392,122
Tier 2	415	833,731
Tier 3	8	19,968
Tier 4	48	144,144
Multi Family (Total)	686	302,092
<b>Total Homes</b>	<b>2,077</b>	<b>2,701,795</b>
<b>Plus Measures</b>		
14 SEER HVAC	20	3,570
Lighting Fixtures and CFLs	510	161,274
Duct Placement	784	438,718
ENERGY STAR Dishwasher	1,313	39,390
ENERGY STAR Ceiling Fan	0	0
Whole House Fan System	5	1,800
Evaporative Coolers	0	0
Ground Source Heat Pumps	1	15,568
<b>Total Plus Measures</b>	<b>2,633</b>	<b>660,320</b>

**Major Trends and Activities**

Participation and first year energy savings for 2009 increased more than 10 percent compared to 2008, while overall program expenditures were 13 percent lower

The Company proposed modifications to the Energy Star New Homes program in Docket No. 09-035-T10, on June 24, 2009. The changes were proposed to maintain and increase program participation in this challenging economic climate, including adding certainty to the program offering by providing a multi-year incentive offer (2009 – 2010) that would be available, while the schedule for IECC 2009 code adoption was finalized. The primary changes included consolidation of single family whole home packages (from four tiers to three), offering incentive packages for 50 and 75 percent CFL installations in homes, and modification of five plus measures and incentives. The modifications were approved on August 6, 2009 with an effective date of July 24, 2009. The annual results (above) reflect a combination of the measures from the previous tariff and the tariff in effect on July 24, 2009.

In terms of program delivery, there were 140 builders with participation agreements in 2009 and all 140 submitted incentive applications during the year. In addition, the program provided training sessions and promotional support including:

- Builder and rater trainings, including the Energy Star Builder Summit, HVAC/duct sealing training, and quarterly training sessions for raters,
- Co-operative advertising sponsorship including a television campaign, and
- Participation in building code workshops

In 2009, the Company continued sponsorship (along with Questar Gas Company) of International Energy Conservation Code (IECC) code training delivered by the Utah State Energy Program. The five training sessions attracted 165 attendees.

### **Cost Effectiveness**

The 2009 Energy Star New Home program was cost effective from all perspectives except the Ratepayer Impact Test.

The cost effectiveness analysis utilized the actual 2009 results which included a combination of homes completed in accordance with the prior approved tariff and homes completed in accordance the tariff approved as part of Docket No. 09-035-T10, with an effective date of July 24, 2009.

Appendix 1 provides detailed inputs used in the cost effectiveness analysis of this program and provides the measure level cost effectiveness analysis.

Reported savings for the program utilize unit level ex ante planning estimates that are consistent with those approved by the Commission in Docket No. 09-035-T10 and Docket No. 08-035-T01.

### **Program Evaluation**

Process and impact evaluations are currently underway for the Energy Star New Homes program for years 2006-2008. The draft results of these evaluations are expected to be available during the second quarter of 2010.

### **Plans for 2010**

The program administrator will continue outreach to non-participant builders as part of the on-going recruitment efforts. In addition, the program administrator will develop communication and outreach plans to increase the number of Energy Star certified homes (or units) by 10 percent.

The Company will monitor Utah's adoption schedule of International Energy Conservation Code (IECC) 2009 standards, the national Energy Star re-design initiatives and local builder use of the current program to inform revised program design options for the post IECC 2009 time frame. This information will be utilized as part of the scheduled delivery contract re-procurement.

## Home Energy Savings Program (Schedule 111)

The Home Energy Savings program provides a broad framework to deliver incentives for more efficient products and services installed or received by Utah customers in new or existing homes, multi-family housing units and 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 energy efficiency Web site at <http://www.rockymountainpower.net/env/epi.html> .

Eligible program measures include: washing machines, refrigerators, water heaters, dishwashers, lighting (both compact florescent lamps (CFLs) and fixtures), cooling equipment services, and home improvement measures such as insulation and window upgrades. 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 point-of-purchase and involve no direct customer application process.

Program results for 2009 are provided in the following table.

**Table 12**

### 2009 Home Energy Savings Program Performance

kWh/Yr Savings 2009 (Gross - At Gen)	94,329,886
Expenditures	\$ 25,439,423
Incentives Paid	\$ 21,743,765

	PTRC	TRC	UCT	RIM	PCT
Program Cost Effectiveness	1.629	1.481	1.773	0.627	11.999
Levelized Cost (\$/kWh)	\$ 0.0696	\$ 0.0696	\$ 0.0581		
Lifecycle Revenue Impact (\$/kWh)	\$ 0.0004776				
Discounted Participant Payback (Years)	0.73				

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

**Table 13**

**2009 Home Energy Savings Measure Performance**

Home Energy Savings Measures	Unit			kWh/Yr Savings
	Measurement	# of Units	Participants	(Gross - At Site)
Clothes Washer-Tier One	Units	2,903	2,903	480,112
Clothes Washer-Tier Two	Units	18,217	18,217	3,339,363
CW Recycle	Units	405	405	40,920
Dishwashers	Units	6,850	6,850	123,318
Electric Water Heater	Units	16	16	1,451
Refrigerator	Units	7,414	7,414	722,826
Room AC New Purchase	Units	198	198	18,117
Room AC Recycle	Units	0	0	0
Insulation: Attic	Sq Feet	51,626,173	37,444	8,051,772
Insulation: Floor	Sq Feet	1,801,643	1,712	218,727
Insulation: Wall	Sq Feet	1,358,427	1,583	276,210
Windows	Sq Feet	571,579	4,008	109,659
AC Tune-Up	Projects	629	629	39,187
Duct Insulation	Projects	298	298	130,822
Duct Sealing - Elec	Projects	0	0	0
Duct Sealing - Gas	Projects	59	59	6,297
Ceiling Fans	Units	545	324	58,315
Fixtures	Units	3,171	1,529	291,732
CFLs	Bulbs	2,373,030	237,303	72,064,453
<b>Totals</b>		<b>57,771,557</b>	<b>320,892</b>	<b>85,973,282</b>
kWh/Yr Savings at Generation				94,329,885

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

**Major Trends and Activities:**

Home Energy Savings program activity in 2009 was dominated by substantial increases in attic insulation projects. Most attic insulation projects for the year were in locations where the customer was served by Questar Gas Company and an additional incentive was available.

In 2009, declining customer costs to install attic insulation combined with additional contractors offering these services changed the market. The decline in new construction activity led many contractors to re-position their companies as attic insulation concerns, with some operating to offer installation for less than or equal to the combined Rocky Mountain Power and Questar Gas Company incentives available in early 2009. The overall design of the program was (and is) that incentives are intended to offset a

portion, not all, of the cost incurred by the customer to install energy efficiency measures and were not intended to cover or exceed the entire cost of contractor installed insulation services. These significant changes led Rocky Mountain Power and Questar Gas Company to re-assess incentive levels and file for an adjustment to realign available incentives with original the program design intent.

With the increases in contractor activity, the Company and Questar jointly sponsored a meeting for insulation contractors on February 18, 2009 which was attended by 70 people representing approximately 25 firms. A preview of the Company's proposed changes to incentive levels was provided at this meeting.

On March 11, 2009, Questar filed to change their incentive level for attic insulation from \$0.35/SF to \$0.20/SF and requested an April 1, 2009 effective date. On March 23, 2009, the Company filed to change the attic insulation incentive for electrically cooled homes from \$0.35/SF to \$0.10/SF and to separate insulation measures for electrically cooled and electrically heated homes. Rocky Mountain Power also requested an effective date of April 1, 2009.

As part of the filing, the Company changed the methodology used to estimate electric savings to better reflect cooling load savings that are achieved from most insulation projects. The original per square foot savings values derived from Regional Technical Forum (RTF) data was based on the prior weatherization studies in the Northwest. These estimates were replaced with calculations based on the Home Energy Saver simulation model with input information on variables such as existing insulation, post project insulation levels, building size and configuration, cooling and heating plant efficiencies and climate zone based on actual application data. The Home Energy Saver simulation tool was selected for the following reasons: 1) Questar Gas Company utilized this model to calculate their insulation savings, 2) it is widely used in the industry and 3) it is supported by Lawrence Berkley Laboratory.

On April 16, 2009, the Commission held a hearing to consider the Company's request. On April 27, 2009, the Commission approved the request for separate insulation incentive levels for electrically cooled and electrically heated residences and set the incentive for attic insulation in electrically cooled homes at \$0.20/SF. The effective date of the incentive changes was June 1, 2009 and customers had until July 31, 2009 to submit completed applications to qualify for the prior incentive levels. During 2009, more than 51 million square feet of attic insulation (approximately 5 times the 2008 level) was installed. Incentives paid in 2009 for attic insulation were approximately \$15.8 million which reflects incentives paid at both \$0.35/SF and \$0.20/SF. The increased insulation activity was a primary factor in the 225 percent increase in overall costs for this program when compared to 2008.

The increased activity in the insulation market was reflected in other measures. During 2009, the number of contractors with Utah program participation agreements increased from 31 to 55. In January 2009, the per square foot price for attic insulation was in the \$0.71 to \$0.78 range. In December 2009, the range for attic insulation was \$0.40 to

\$0.45 per square foot<sup>7</sup>. Program quality assurance activities for the insulation measures increased, including the percentage of on-site inspections.

As part of the DSM tariff rider collection rate filing adjustment and resultant stipulation in Docket No 09-035-T08, the Company worked with interested parties to examine if a flexible tariff as originally proposed in 2006 for this program could be utilized and provide a more streamlined change process to allow the Company to react quickly to market changes. A revised flexible tariff process compliant with Commission requirements was filed for and approved in Docket No. 09-035-T13.

### **Cost Effectiveness**

The program was cost effective from all perspectives except the Ratepayer Impact Test. The cost effectiveness analysis utilized ex ante per unit deemed planning estimates for savings and net to gross ratios in place for 2009 reporting. Appendix 1 provides detailed inputs used in the cost effectiveness analysis of this program as well as measure group cost effectiveness results.

### **Program Evaluation**

Process and impact evaluations are currently underway for the Home Energy Savings program for years 2006 to 2008. The draft and final reports for the evaluations are expected to become available during the second quarter of 2010.

### **Plans for 2010**

During 2010, the Company plans to make modifications to the Home Energy Savings program including adjustments to lighting, appliances, HVAC and home improvement (shell) measures.

The Company also plans to:

- Deliver joint (with Questar Gas Company) workgroup sessions for weatherization and home improvement contractors;
- Expand HVAC training and contractor certification requirements to help ensure the quality of work performed meets best practices and delivers electric energy savings; and
- Evaluate new measures and effectiveness of delivery channels in conjunction with scheduled re-procurement activity.

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<sup>7</sup> Based on program administrator analysis of customer incentive applications.

## See ya later, refrigerator (Schedule 117)

The Utah refrigerator recycling program See ya later, refrigerator is available to Utah 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 in the secondary appliance market. To participate, customers call a 1-800 number to schedule a pick-up. Program awareness is generated through mass media advertising channels as well as Company channel communications such as the program's Web site, bill stuffers, and customer newsletters. In addition to free pick-up and a nominal cash incentive, 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 following table.

**Table 14**

### 2009 See Ya Later Refrigerator Program Performance

kWh Savings 2009 (Gross - At Gen)	23,609,775
Expenditures	\$ 2,339,080
Incentives Paid	\$ 491,340

	PTRC	TRC	UCT	RIM	PCT
Program Cost Effectiveness	2.170	1.973	1.559	0.518	NA
Levelized Cost (\$/kWh)	\$ 0.0363	\$ 0.0363	\$ 0.0459		
Lifecycle Revenue Impact (\$/kWh)	\$ 0.000093830				

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

**Table 15**

**See Ya Later Refrigerator 2009 Results**

<b>Refrigerator Recycling Measure</b>	<b>Unit Count</b>	<b>Per Unit Savings (kWh/Yr)</b>	<b>Gross Savings (kWh/Yr)</b>
Refrigerator	13,100	1,149	15,051,900
Freezer	3,278	1,590	5,212,020
<b>Total Units Recycled</b>	<b>16,378</b>		<b>20,263,920</b>
Energy Savings Kits	15,485	81	1,254,285
<b>Total (At Site)</b>			<b>21,518,205</b>
<b>Total (At Generation)</b>			<b>23,609,775</b>

Total Expenditures \$ 2,339,080

Total Cash Incentives \$ 491,340

**Major Trends and Activities**

Participation for 2009 was 8 percent lower than in 2008, as the economic slowdown continued to impact program participation. However, the program did deliver more than 23,000 MWh of first year energy savings during 2009, and program expenditures were 9 percent lower than in 2008.

In terms of the impact of the program on the environment, processing the 16,378 units resulted in the recycling of more than 2 million pounds of metal, 400,000 pounds of plastics, 10 tons of tempered glass and the capture, recovery or destruction of more than 7,500 lbs of ozone depleting Chlorofluorocarbons (CFC) and Hydrofluorocarbons (HFC), commonly used in refrigerants and blowing agents for polyurethane foam insulation. The Carbon Dioxide (CO<sub>2</sub>) and Equivalent carbon dioxide (CO<sub>2</sub>e) avoided from the atmosphere was in excess of 65,000 tons.

**Cost Effectiveness**

The 2009 See ya later, refrigerator program was cost effective from both a utility cost test and total resource cost test perspective. There are no participant costs, so results of that test were not calculated. The cost effectiveness analysis utilized evaluated results (ex-post) for net to gross ratios as well as reported kWh savings. These ex post estimates are from the *Evaluation of Utah Refrigerator Recycling Program* prepared by Kema on July 31, 2007. Appendix 1 provides detailed inputs used in the cost effectiveness analysis of this program as well as measure level cost effectiveness results.

**Program Evaluation**

Process and impact evaluations are currently underway for the See ya later, refrigerator program for years 2006-2008. The draft results of these evaluations are expected to be available during the second quarter of 2010.

**Plans for 2010**

JACO Environmental anticipates an increase in participation as economic conditions improve.

Several new program design features will help add volume to the program starting in spring of 2010. The ARRA Stimulus funding program will allow purchasers of new Energy Star refrigerators to qualify for rebates at local appliance retail stores while receiving the \$30 incentive for turning in the old appliances they are replacing. JACO will be working with Sears, Best Buy, Lowe's and other interested dealers in Utah to allow eligible customers to have the new units delivered and the old units picked up at the same time. This will mean home owners need only one appointment. JACO will continue its retail participation after the ARRA program has ended to make it more convenient for customers to participate in the "See ya later, refrigerator" program.

The Company and JACO Environmental will evaluate other appliance recycling opportunities that would generate sustainable energy savings and incorporate proposed program revisions into scheduled delivery contract process.

## **Low Income Weatherization (Schedule 118)**

The low income weatherization program provides weatherization and efficient appliance upgrades to income-qualified households on a no-cost basis. The program is administered by the Utah Department of Community and Culture (DCC) who in addition to the Company funding receives funds from the federal government. The federal monies can be used for household repairs as well as weatherization and other low income program services. This partnership allows for leveraging of Company funding with federal grants resulting in more comprehensive assistance to qualified households and a greater number of homes served.

The Company began working with local agencies in the delivery of program services in 1992. Recognizing that the majority of households in Rocky Mountain Power's service territory did not heat their homes with electricity, making the weatherization services component of the program less relevant to the Company's customers served, the program was revised in 2005 to make it more applicable. Today, the majority of Company funding provided to DCC in support of program services is targeted towards the cost of electric efficiencies related to lighting and refrigerators. Since 1992, Rocky Mountain Power has provided funding on measures installed in over 3,000 homes.

The program is available to income qualifying customers who either own or rent single-family homes, manufactured homes or apartments.

Table 16 summarizes program activities in 2009. Expenditures of \$162,352 were paid by Rocky Mountain Power in support of the program. Of those expenditures, \$151,174 is attributed to agency incentives and administrative fees, with the balance of the costs attributable to utility administration of the program. Funds received by the agency from other sources are not included in Table 16. The program was cost effective on both a resource cost basis and a utility cost basis. The average incentive provided by Rocky Mountain Power to DCC for this program was \$227 per home.

### **Table 16**

<b>Low Income Weatherization Performance - Utah</b>	
kWh/Yr Savings (at Site)	1,119,227
kWh/Yr Savings (at Gen)	1,228,016
Expenditures - Total	\$ 162,352
Participation - Total # of Completed/Treated Homes	715
Number of Homes Receiving Specific Measures	
Efficient Furnace Fans	14
Compact Fluorescent Light bulbs	11,360
Replacement Refrigerators	343

	PTRC	TRC	UCT	RIM	PCT
Program Cost Effectiveness	4.019	3.654	3.654	0.067	NA
Levelized Cost (\$/kWh)	\$ 0.0179	\$ 0.0179	\$ 0.0179		
Lifecycle Revenue Impact (\$/kWh)	\$ 0.0000063				

## Non- Residential Energy Efficiency Programs and Activity

### Energy FinAnswer (Schedule 125)

The Energy FinAnswer program with the incentive offer has been available to Utah business customers since 2001.

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 construction projects) and design team incentives for new construction projects exceeding current Utah energy code by at least 10 percent.

The summary program results are provided in the following table.

**Table 17**

#### 2009 Energy FinAnswer Program Performance

kWh/Yr Savings 2009 (Gross - At Gen)	62,753,885
Total Expenditures	\$ 7,747,031
Incentives Paid	\$ 4,847,047

	PTRC	TRC	UCT	RIM	PCT
Program Cost Effectiveness	2.918	2.653	4.542	1.116	5.506
Levelized Cost (\$/kWh)	\$ 0.0339	\$ 0.0339	\$ 0.0198		
Lifecycle Revenue Impact (\$/kWh)	\$ (0.00000942)				
Discounted Participant Payback (Years)	2.06				

Energy engineering for customer projects, supporting both projects with 2009 reported savings and projects that will generate savings in future periods, accounted for approximately \$2,210,000 of the total program expenditures. Energy engineering is performed by third party firms with professional services contracts in place with the Company. In 2009, Rocky Mountain Power had contracts with sixteen firms (several with multiple office locations) to deliver these services in Utah and throughout the Company territory. Firms are selected through a competitive process based on verifiable experience with specific technology and customer groups. Work assignments at customer locations align with a firm's demonstrated expertise.

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

**Table 18**  
**Energy FinAnswer kWh Savings by Measure Type**

		kWh/ Yr. Savings (At Site)	% of kWh Savings
Process	14	22,017,933	37.5%
Compressed Air	26	15,399,440	26.2%
Refrigeration	26	9,484,829	16.2%
HVAC	52	6,775,920	11.5%
Lighting	24	2,920,093	5.0%
Pumps	7	1,727,042	2.9%
Shell	14	230,005	0.4%
Other	3	129,913	0.2%
<b>Total</b>	<b>166</b>	<b>58,685,175</b>	

**Major Trends and Activities**

A total of 166 Energy FinAnswer projects were completed in 2009 compared to 94 in 2008. Program specific energy savings increased by approximately 19 percent compared to 2008, while program expenditures remained approximately the same. A single large industrial project was completed and contributed 19,359,609 kWh or approximately 33 percent of the annual results. The project was eligible for an incentive of approximately \$2.1 million.

In addition to the program marketing through Rocky Mountain Power Customer and Community Managers, demand-side management program staff, trade allies in concert with the FinAnswer Express program and energy consultants, program information was provided at the following events.

- |   |                    |
|---|--------------------|
| Salt Lake Sustainable Building Conference Agenda<br>Salt Palace Convention Center, Salt Lake City, UT | April 7, 2009      |
| Salt Lake Chamber Expo Marketplace<br>Sheraton Hotel, Salt Lake City, UT                              | May 14, 2009       |
| AIA Utah Design Conference<br>Salt Lake City, UT  | September 25, 2009 |
| UMA Presentation and Luncheon<br>UMA Office, Salt Lake City, UT                                       | December 10, 2009  |

In addition, there was a television, direct mail, newspaper, and radio campaign to help business customers make the case for energy efficiency investments. Over the course of four weeks, radio ads were run during the AM/PM drive time on three different stations, for a total of 112 spots. Newspaper ads were run in four local newspapers for a total of 28 ads. Information on the programs was also run in seven different business publications throughout the year. Forty-two energy efficiency inquiries and energy savings projects can be directly attributed to these 2009 Utah business customer communications.

In late 2008, Rocky Mountain Power brought a work force development funding proposal to the DSM Advisory Group for discussion. This proposal was designed to help overcome the shortage of trained energy efficiency professionals with Salt Lake Community College having primary responsibility for program development and delivery. The proposed program was designed to be similar to a program at a northwest community college. Rocky Mountain Power's contribution was to fund (in equal percentage with Questar Gas Company) any expenses not covered by student tuition, not to exceed \$40,000. Costs, if any for the support, would be allocated as recoverable program expense to programs with the highest use of the third party firms included in the program designs; specifically Energy FinAnswer, FinAnswer Express and Self Direction program. In addition, a Company representative would be on the program advisory committee. 2009 highlights for this effort are outlined below.

- Adjunct faculty was recruited and classes began on August 10, 2009 (the first cohort).
- Fifteen students are enrolled in the first cohort and expected to graduate in December 2010.
- Three program advisory groups meetings were held.
- The program (Associate of Applied Science Degree in Energy Management ) was positioned for 2010 approval by the State Board of Regents.
- No sponsorship funds were requested in 2009.

Multiple requests for site specific analysis to help quantify or support federal stimulus funding applications were received in 2009.

### **Cost Effectiveness**

The 2009 Energy FinAnswer program was cost effective from all perspectives. Appendix 1 provides inputs used in the cost effectiveness analysis of this program as well as the measure group cost effectiveness results. The appendix also provides more details on the reporting of kWh savings.

### **Program Evaluation**

Process and impact evaluations are currently underway for the Energy FinAnswer program for years 2006-2008. The draft results of these evaluations are expected to be available during the second quarter of 2010.



## **Plans for 2010**

Continue to monitor actual and forecasted participation and assess the possible introduction of program modifications similar to those implemented in other markets.

Benchmark other comprehensive program approaches to non-measure savings acquisition such as tune-ups or operation and maintenance savings.

Closely coordinate program delivery at a customer and program level with additional incentives that become available, especially those available from federal stimulus funding.

Incorporate effects of the adoption of the non-residential portion IECC 2009 into new analysis work. Provide outreach to ensure energy engineering firms providing program services are fully incorporating the impacts for projects required to meet the new code.

## FinAnswer Express (Schedule 115)

The FinAnswer Express program is available to Utah business customers. The program is designed 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 marketed through a combination of local trade allies who receive support from the Company and through referrals between other business customer programs.

The summary program results are provided in the following table.

**Table 19**

### 2009 FinAnswer Express Program Performance

kWh/Yr Savings 2009 (Gross - At Gen)	40,970,925
Total Expenditures	\$ 4,033,808
Incentives Paid	\$ 2,712,650

	PTRC	TRC	UCT	RIM	PCT
Program Cost Effectiveness	2.584	2.350	5.598	1.018	4.130
Levelized Cost (\$/kWh)	\$ 0.0358	\$ 0.0358	\$ 0.0150		
Lifecycle Revenue Impact (\$/kWh)	\$ (0.00000121)				
Discounted Participant Payback (Years)	2.51				

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

**Table 20**

### FinAnswer Express kWh Savings by Measure Type

	# of Projects	kWh/ Yr. Savings (At Site)	% of kWh Savings
Lighting	449	31,370,457	83.2%
HVAC	119	4,963,286	13.2%
Other	8	384,470	1.0%
Food Service	27	358,965	1.0%
Refrigeration	32	273,401	0.7%
Building Shell	13	185,658	0.5%
Motors	42	152,243	0.4%
Total	690	37,688,481	

## Major Trends and Activities

690 projects were completed in 2009 compared to 597 in 2008. Program savings (and expenditures) were lower than in 2008 but results in any given period are inextricably linked with multiple customer budget and construction cycles. The Energy FinAnswer and FinAnswer Express programs operate as complementary programs for commercial and industrial customers and despite downward economic pressures, the combined 2009 kWh savings from Energy FinAnswer and FinAnswer Express were comparable to the prior year.

Each year, a training event is held for trade allies working with the FinAnswer Express program. In 2009, the event was held on February 10<sup>th</sup> at the Larry H. Miller campus of the Salt Lake Community College. The event was attended by nearly 200 trade allies and provided information about program updates and changes, recognized outstanding trade allies, and provided technology specific training in targeted breakout sessions.

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.

In addition to referrals from other programs, marketing by demand-side 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 following energy efficiency focused events.

Utah Chapter of the Association of Energy Engineers  
Sandy, UT  
February 19, 2009

Green Building Expo  
Salt Lake City, UT  
September 10, 2009

Green Building Seminar  
Logan, UT  
October 9, 2009

In addition to these events, the 2009 campaign to help business customers make the case for energy efficiency investments described in the Energy FinAnswer section of this report was also intended to drive activity through the FinAnswer Express program.

## **Cost Effectiveness**

The program is cost effective from all perspectives. Appendix 1 provides inputs and assumptions used in the cost effectiveness analysis of this program as well as the measure group cost effectiveness results. The appendix also provides a description of kWh savings estimates and tools used to support program implementation and reporting.

## **Program Evaluation**

Process and impact evaluations are currently underway for the FinAnswer Express program for years 2006-2008. The draft results of these evaluations are expected to be available during the second quarter of 2010.

## **Plans for 2010**

The Company intends to propose changes for selected components of the lighting, motors, HVAC and refrigeration measures to reflect the effects of changes in codes and standards.

Continue to monitor actual and forecasted participation and assess the possible introduction of program modifications (beyond those driven by code changes) similar to those implemented in other markets.

Further develop the trade-ally specific Web site to provide targeted information about program features, changes and training opportunities to trade allies.

Continue to build and expand relationships with key members of the HVAC, lighting, motors, architecture and engineering communities to continue to make the business case for energy efficiency equipment.

Incorporate effects of the adoption of the non-residential portion IECC 2009 into program analysis tools. Provide outreach to ensure trade allies understand incorporating the impacts for projects required to meet the new code.

## Re-Commissioning (Schedule 126)

The Re-Commissioning program is designed to help owners target electric savings that can be achieved through a systematic tune-up of existing equipment, i.e., measures that deliver savings through no or low-cost improvements. The focus is on restoring building operations to their original design intent. The program trains and utilizes Re-Commissioning Service Providers (RSP) to assist customers with their projects.

To maintain program cost-effectiveness, qualifying projects are screened based on electrical usage, building size, type and function, the existing capabilities of building control systems, and the owner's commitment to implement the operational efficiencies identified. If the owner does not implement the operational efficiencies identified through the collaborative process, repayment of some or all of the direct costs of the Re-Commissioning analysis may be required.

This program operates and is marketed in conjunction with the Energy FinAnswer, FinAnswer Express and Self-Direction programs. Projects or measures that don't meet the criteria for the Re-Commissioning program, (i.e. require a capital equipment investment) are referred to one of the other business programs. Conversely, operations and maintenance or tune-up type measures identified in the capital equipment programs are referred to the Re-Commissioning program for services. RSPs are also encouraged to market the program, but most of the leads to date are coming from other channels.

The summary program results are provided in the following table.

**Table 21**

### 2009 Re-commissioning Program Performance

kWh/Yr Savings 2009 (Gross - At Gen)	10,792,436
Total Expenditures	\$ 947,450
Incentives Paid	\$ -

	PTRC	TRC	UCT	RIM	PCT
Program Cost Effectiveness	4.621	4.201	5.231	1.043	16.649
Levelized Cost (\$/kWh)	\$ 0.0217	\$ 0.0217	\$ 0.0174		
Lifecycle Revenue Impact (\$/kWh)	\$ (0.00000127)				
Discounted Participant Payback (Years)	0.37				

## **Major Trends and Activities**

The Re-Commissioning Program has experienced a steady increase in customer participation since its inception in 2005. While a majority of the participants in the program are from the commercial building sector, there has been increasing participation from the industrial sector. Industrial customers have been interested specifically in compressed air leak reduction and process controls optimization measures. In 2009, program outreach continued to focus on high-energy use, comfort issues and optimal (design intent) operation at the customer facilities with majority of activity being in the commercial sector.

## **Cost Effectiveness**

The program is cost effective on all tests. Appendix 1 provides inputs and assumptions used in the cost effectiveness analysis of this program, as well as a description of the calculation of reported kWh savings.

## **Program Evaluation**

Process and impact evaluations are currently underway for the Re-Commissioning program for years 2006-2008. The draft results of these evaluations are expected to be available during the second quarter of 2010.

## **Plans for 2010**

On-going project development and completion.

Informal research and needs assessment among industrial customers who have expressed interest in participating in the program.

Benchmarking the program against other similar programs (those delivering “non-measure” savings) across the country to identify best practices.

Evaluate the effectiveness of Re-Commissioning as a free-standing program.

Review the results of the benchmarking effort, industrial needs assessment and “free standing” analysis for possible program revisions as part of the scheduled process for re-procuring delivery services.

## Self Direction (Schedule 192)

The Self Direction credit program is available to Utah 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. 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 Charge (DSM tariff rider) on the monthly bill and are available for both new construction and retrofit projects. In addition, there is a provision for customers with no cost effective 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.

The summary program results are provided in the following table.

**Table 22**

### 2009 Self Direction Program Performance

kWh/Yr Savings 2009 (Gross - At Gen)	9,413,342
Expenditures (Does not include Credits)	\$ 124,531
Self Direction Credits Paid in 2009	\$ 2,271,941
Total Program Expenditures	\$ 2,396,472

	PTRC	TRC	UCT	RIM	PCT
Program Cost Effectiveness	3.178	2.889	2.889	1.010	NA
Levelized Cost (\$/kWh)	\$ 0.0231	\$ 0.0231	\$ 0.0231		
Lifecycle Revenue Impact (\$/kWh)	\$ (0.00000013)				
Discounted Participant Payback (Years)	NA				

### Major Trends and Activities

Thirteen completed Standard Projects (projects eligible for 80 percent credits) were approved by the Self-Direction Credit Program Administrator in 2009. Participation from customers who have previously submitted a project accounted for 10 of the 13 approved projects. Credit utilization increased in 2009 as the result of the increase in the DSM tariff rider from 2.1 percent to 4.6 percent on September 1, 2009. For customers who have previously participated, the increase also generated a focus on developing new projects, so they were able to maintain continuous monthly disbursement of credits. The increase in the DSM tariff rider generated interest among customers who

had not previously participated and their project development activity increased. In 2009, credits utilized exceeded the caps established in the tariff.

### **Cost Effectiveness**

The program is cost effective from all perspectives. Appendix 1 provides inputs and assumptions used in the cost effectiveness analysis of this program. The appendix also provides an explanation of kWh savings estimation and reporting.

### **Program Evaluation**

Process and impact evaluations are currently underway for the Self Direction program for years 2006-2008. The draft results of these evaluations are expected to be available during the second quarter of 2010.

### **Plans for 2010**

The Company has filed to establish a single annual credit cap and increase it to \$5 million. This proposal is before the Commission in Docket No. 10-035-T03.

Increase communications to customers with credits forecast to be fully utilized within a window of the next 120 days.

Respond to customer specific inquiries on program requirements.

Ensure the effects of the adoption of the non-residential portion IECC 2009 are incorporated into new analysis work. Provide outreach to ensure energy engineering firms providing program services are fully incorporating the impacts for projects required to meet the new code.

## Summary of 2009 Results

Table 23

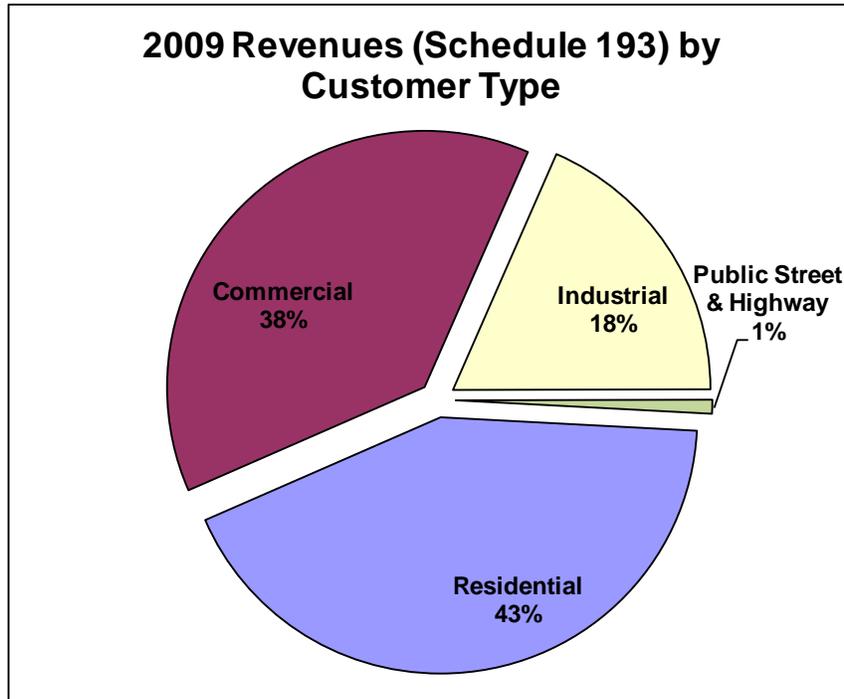
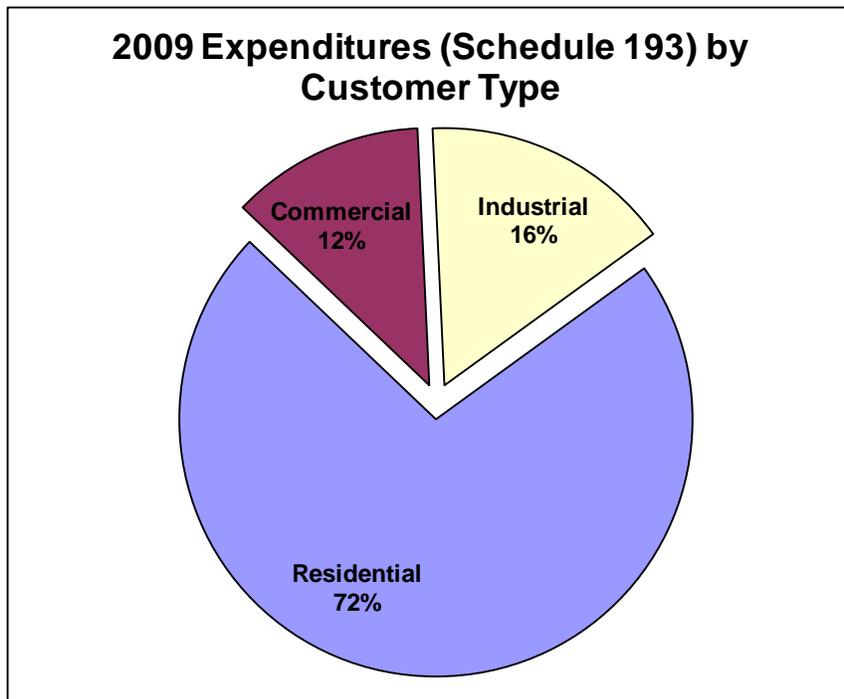
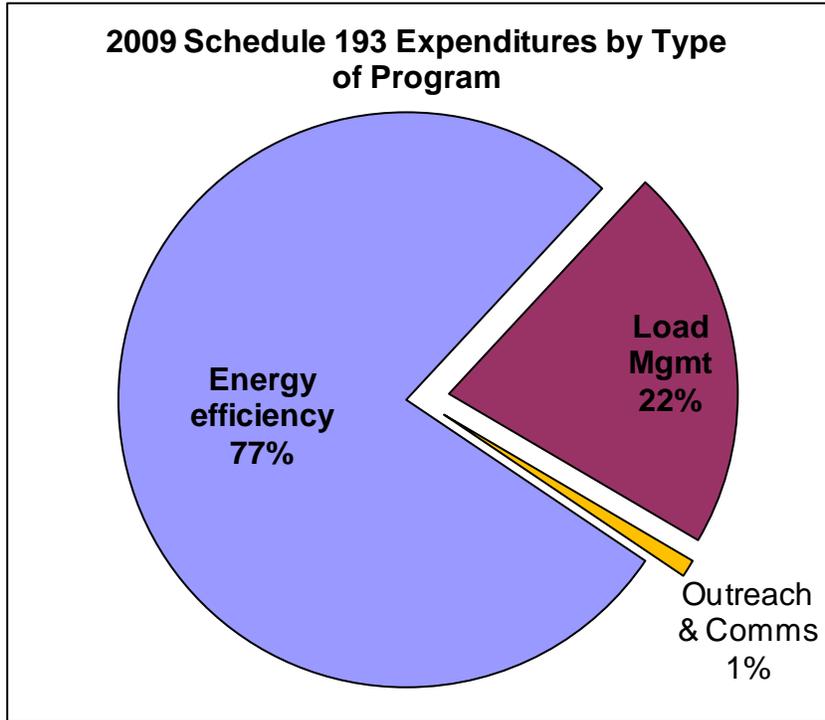


Table 24



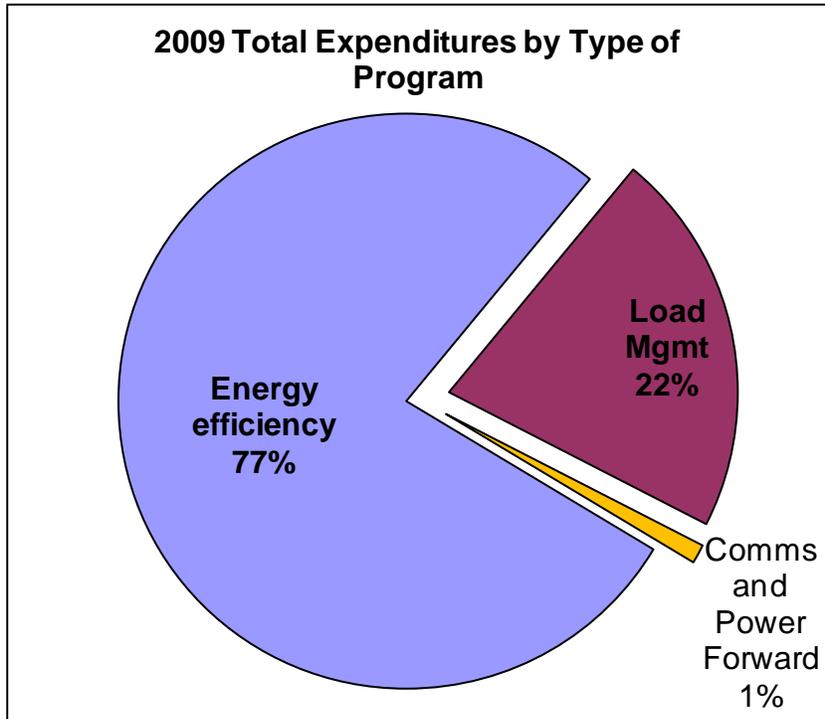
(Note – Table 24 does not include Self Direction Participation Credits, but includes Load Management (Cool Keeper for residential and Irrigation Load Control for industrial), Outreach and Communications and Power Forward expenditures as residential costs).

**Table 25**



(Note – Table 25 does not include Self Direction Credits)

**Table 26**



(Note – Table 26 includes Schedule 193 expenditures and Self Direction Credits)

Table 27

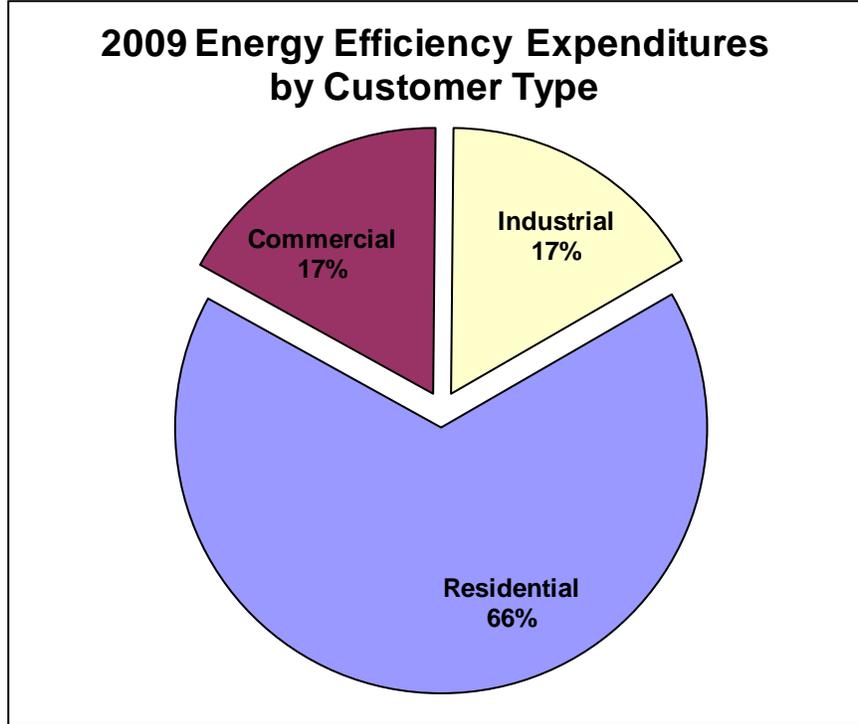
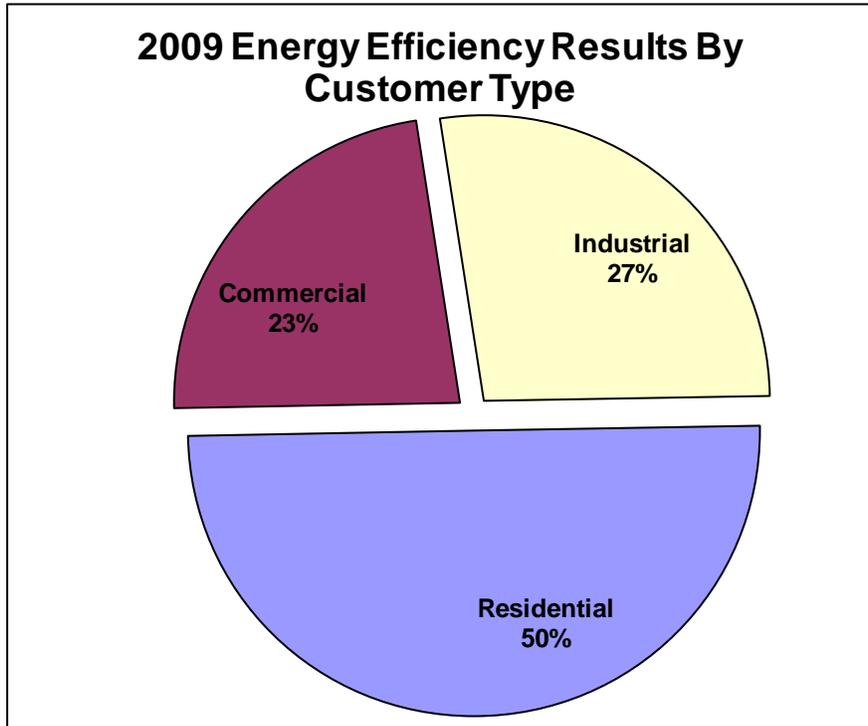


Table 28



## Balancing Account Summary

Demand-Side Management activities are funded by revenue collected through the DSM tariff rider, which is administered through Schedule 193. Expenses for DSM expenditures are charged as incurred and debited to the balancing account. DSM tariff rider revenues are credited to the balancing account when collected. The DSM balancing account activity for 2009 is outlined in the following table.

**Table 29**

Balance as of 12/31/2008 \$ 7,015,458.75

	Monthly Program			Accumulated		Accumulated
	Costs - Fixed			Balance		Balance Total
	Assets	Rate Recovery	Carrying Charge	Balance	AFUDC Rate	Carrying Costs
January	1,936,153.13	(2,200,669.65)	46,496.00	6,797,438	8.15%	2,810,020
February	2,403,768.34	(1,991,967.27)	47,308.00	7,256,547	8.15%	2,857,328
March	6,369,127.41	(1,915,357.12)	64,061.00	11,774,379	8.15%	2,921,389
April	3,306,150.16	(1,845,603.87)	59,413.00	13,294,338	8.15%	2,980,802
May	5,074,112.34	(1,916,972.20)	100,466.00	16,551,944	8.15%	3,081,268
June	7,272,767.34	(2,269,849.48)	128,706.00	21,683,568	8.15%	3,209,974
July	5,551,513.65	(2,620,447.75)	155,865.00	24,770,499	8.15%	3,365,839
August	3,772,636.18	(3,000,380.82)	168,919.00	25,711,673	8.15%	3,534,758
September	3,378,346.62	(3,987,985.06)	173,158.00	25,275,193	8.15%	3,707,916
October	5,020,219.04	(4,877,164.73)	171,217.00	25,589,464	8.15%	3,879,133
November	7,553,721.94	(4,333,387.30)	191,105.00	29,000,904	8.15%	4,070,238
December	4,271,097.10	(5,086,802.08)	194,194.00	28,379,393	8.15%	4,264,432
<b>2009 totals</b>	<b>\$ 55,909,613.25</b>	<b>\$ (36,046,587.33)</b>	<b>\$ 1,500,908.00</b>			

### Column Explanations:

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

Rate Recovery: Revenue collected through Schedule 193, DSM tariff rider.

Carrying Charge: Monthly carrying charge based on “Accumulated Balance” of the account.

Accumulated Balance: Reflects the current balance of the account.

AFUDC Rate: The carrying charge rate applied to the accumulated balance. AFUDC means Allowance for Funds Used During Construction.

Accumulated Balance Total Carrying Costs: Total net carrying charges paid on the account.

At the beginning of 2009, the unfunded balance was approximately \$7.0 million and the average collection rate was 2.1 percent, unchanged since August 2006. In June 2009, the Company performed an analysis consistent with the methodology established in Docket No. 02-035-T12<sup>8</sup>. This analysis was intended to establish a revised collection rate necessary for an account balance close to zero within 12 months. The analysis

<sup>8</sup> Refer to Article II, paragraph 10 of the stipulation reached in this docket.

indicated that the DSM balancing account, absent an adjustment, would have an unfunded balance (debit) of approximately \$57.2 million by June 30, 2010 and that an upward adjustment to an average rate of 6.2 percent was necessary for the account to have a zero balance in 12 months of setting the revised collection rate.

On August 3, 2009 the Company filed a multi-party stipulated agreement that proposed increased collections to an average rate of 4.6 percent, which was designed to bring the balancing account into balance over a period of 24 months by August 2011. On August 20, 2009, the Commission held a hearing to consider the proposed stipulation and issued an order approving the stipulation and the revised DSM tariff rider of 4.6 percent on August 25, 2009. The revised DSM tariff rider became effective on September 1, 2009.

The unfunded balance at the end of 2009 was \$28.4 million.

# Cost Effectiveness

## Introduction

The cost effectiveness of individual programs operated by the Company for 2009 are calculated using actual expenditures and reported savings. Cost-effectiveness is provided at the individual program, load management portfolio, residential energy efficiency portfolio, non-residential energy efficiency portfolio, combined energy efficiency portfolio, and overall demand-side management program portfolio levels. Deemed savings estimates, where applicable, were the same as those used in the planning estimates, unless more recent estimates were available from evaluations.

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 energy efficiency 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 energy efficiency savings are recognized.

The cost/benefit analysis of the load management programs are based on the avoided value of peak or capacity investments. For purposes of calculating program cost-effectiveness, no energy savings are included for the load management programs, only a shift of when the energy is used away from the peak load hours. The five California Standard Practice Manual cost effectiveness tests were utilized in the cost benefit analysis for both energy efficiency and load management programs. Tables 31 through 47 below provide the cost benefit test results for the 2009 programs. Further details are available in Appendix 1.

**Key Assumptions for Cost Effectiveness Calculations:**

Cost effectiveness calculations for programs and measures (or measure groups) within each program will be detailed in the following tables.

Global assumptions used in all cost effectiveness calculations include:

**Table 30**

**Key Assumptions for All Cost Effectiveness Studies:**

<u>Assumption</u>	<u>Value</u>	<u>Source</u>
Discount Rate	7.40%	2008 IRP
Line Losses (Utah Specific)		
Residential	9.720%	2001 MAC Line Loss Study
Commercial	9.353%	2001 MAC Line Loss Study
Industrial	6.330%	2001 MAC Line Loss Study

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

- KW/kWh Savings at Gross
- Administrative expenses
- Incentives paid
- Total utility costs – including administration and evaluation
- Gross customer costs
- Net To Gross ratio
- Measure life
- IRP decrement value

The overall DSM portfolio and component sectors were all cost effective on a UCT and TRC basis. Only the Non-residential and Load Management portfolios generated Ratepayer Impact Test results greater than 1.0.

The following table provides the overall portfolio and sector results of all 5 cost effectiveness tests. (Please refer to the Cost Effectiveness Appendix 1 to this report for more information on the cost effectiveness tests and the assumptions and inputs).

**Table 31****2009 Portfolio and Sector Cost Effectiveness Summary**

	<b>Cost Effectiveness Test</b>				
	<b>PTRC</b>	<b>TRC</b>	<b>UCT</b>	<b>RIM</b>	<b>PCT</b>
2009 Total Portfolio Including Load Management & Marketing	2.185	1.987	1.949	1.020	9.934
2009 Load Management Portfolio	2.212	2.011	1.484	1.484	NA
2009 Energy Efficiency Portfolio Including Marketing	2.163	1.967	2.648	0.807	8.796
2009 Residential Energy Efficiency Portfolio	1.646	1.496	1.714	0.615	17.319
2009 Non-residential Energy Efficiency Portfolio	2.891	2.628	4.674	1.068	5.445

Cost Effectiveness Results for each Sector and Program are provided in the following tables.

**Table 32****2009 Total Portfolio Including Marketing and Load Management**

	Levelized \$/kWh	Costs	Benefits	Net Benefits	Benefit/Cost Ratio
Total Resource Cost Test (PTRC) + Conservation Adder	NA	\$110,383,792	\$241,215,461	\$130,831,669	2.185
Total Resource Cost Test (TRC) No Adder	NA	\$110,383,792	\$219,286,783	\$108,902,991	1.987
Utility Cost Test (UCT)	NA	\$112,535,923	\$219,286,783	\$106,750,860	1.949
Rate Impact Test (RIM)		\$215,074,172	\$219,286,783	\$4,212,611	1.020
Participant Cost Test (PCT)		\$15,560,660	\$154,581,881	\$139,021,220	9.934
Lifecycle Revenue Impacts (\$/kWh)				NA	

**Table 33****2009 Load Management Portfolio**

	Levelized \$/kWh	Costs	Benefits	Net Benefits	Benefit/Cost Ratio
Total Resource Cost Test (PTRC) + Conservation Adder		\$49,888,451	\$110,344,311	\$60,455,860	2.212
Total Resource Cost Test (TRC) No Adder		\$49,888,451	\$100,313,010	\$50,424,559	2.011
Utility Cost Test (UCT)		\$67,601,242	\$100,313,010	\$32,711,768	1.484
Rate Impact Test (RIM)		\$67,601,242	\$100,313,010	\$32,711,768	1.484
Participant Cost Test (PCT)		\$0	\$17,712,791	\$17,712,791	NA
Lifecycle Revenue Impacts (\$/kWh)				NA	



**Table 34****2009 Air Conditioning Load Control**

	Levelized \$/kWh	Costs	Benefits	Net Benefits	Benefit/Cost Ratio
Total Resource Cost Test (PTRC) + Conservation Adder		\$48,272,036	\$106,911,606	\$58,639,570	2.215
Total Resource Cost Test (TRC) No Adder		\$48,272,036	\$97,192,369	\$48,920,333	2.013
Utility Cost Test (UCT)		\$64,869,434	\$97,192,369	\$32,322,936	1.498
Rate Impact Test (RIM)		\$64,869,434	\$97,192,369	\$32,322,936	1.498
Participant Cost Test (PCT)			\$16,597,398	\$16,597,398	NA
Lifecycle Revenue Impacts (\$/kWh)				NA	

**Table 35****2009 Irrigation Load Control**

	Levelized \$/kWh	Costs	Benefits	Net Benefits	Benefit/Cost Ratio
Total Resource Cost Test (PTRC) + Conservation Adder		\$ 1,616,415	\$ 3,432,705	\$ 1,816,290	2.124
Total Resource Cost Test (TRC) No Adder		\$ 1,616,415	\$ 3,120,641	\$ 1,504,226	1.931
Utility Cost Test (UCT)		\$ 2,731,809	\$ 3,120,641	\$ 88,832	1.142
Rate Impact Test (RIM)		\$ 1,616,415	\$ 3,120,641	\$ 1,504,226	1.931
Participant Cost Test (PCT)			\$ 1,115,394	\$ 1,115,394	NA
Lifecycle Revenue Impacts (\$/kWh)				NA	

**Table 36****2009 Energy Efficiency Portfolio Including Marketing**

	Levelized \$/kWh	Costs	Benefits	Net Benefits	Benefit/Cost Ratio
Total Resource Cost Test (PTRC) + Conservation Adder	0.0558	\$60,495,341	\$130,871,150	\$70,375,809	2.163
Total Resource Cost Test (TRC) No Adder	0.0558	\$60,495,341	\$118,973,773	\$58,478,432	1.967
Utility Cost Test (UCT)	0.0414	\$44,934,680	\$118,973,773	\$74,039,092	2.648
Rate Impact Test (RIM)		\$147,472,930	\$118,973,773	(\$28,499,157)	0.807
Participant Cost Test (PCT)		\$15,560,660	\$136,869,090	\$121,308,429	8.796
Lifecycle Revenue Impacts (\$/kWh)				\$0.0000960377	

**Table 37**

**2009 Residential Energy Efficiency Portfolio**

	Levelized \$/kWh	Costs	Benefits	Net Benefits	Benefit/Cost Ratio
Total Resource Cost Test (PTRC) + Conservation Adder	0.0607	\$34,053,946	\$56,051,071	\$21,997,125	1.646
Total Resource Cost Test (TRC) No Adder	0.0607	\$34,053,946	\$50,955,519	\$16,901,573	1.496
Utility Cost Test (UCT)	0.0530	\$29,724,436	\$50,955,519	\$21,231,083	1.714
Rate Impact Test (RIM)		\$82,839,293	\$50,955,519	(\$31,883,774)	0.615
Participant Cost Test (PCT)		\$4,329,510	\$74,983,390	\$70,653,880	17.319
Lifecycle Revenue Impacts (\$/kWh)				\$0.0001074434	

**Table 38**

**Cool Cash**

All Measures				AC: IRP 7% LF Decrement	
	Levelized \$/kWh	Costs	Benefits	Net Benefits	Benefit/Cost Ratio
Total Resource Cost Test (PTRC) + Conservation Adder	0.0765	\$244,348	\$618,159	\$373,811	2.530
Total Resource Cost Test (TRC) No Adder	0.0765	\$244,348	\$561,963	\$317,615	2.300
Utility Cost Test (UCT)	0.1564	\$499,543	\$561,963	\$62,420	1.125
Rate Impact Test (RIM)		\$809,185	\$561,963	(\$247,222)	0.694
Participant Cost Test (PCT)		(\$255,195)	\$797,197	\$1,052,391	NA
Lifecycle Revenue Impacts (\$/kWh)				\$0.0000036883	
Discounted Participant Payback (years)				NA	

**Table 39**

**Energy Star New Homes**

All Measures				AC: IRP 46% LF Decrement	
	Levelized \$/kWh	Costs	Benefits	Net Benefits	Benefit/Cost Ratio
Total Resource Cost Test (PTRC) + Conservation Adder	0.0874	\$1,489,433	\$1,794,656	\$305,222	1.205
Total Resource Cost Test (TRC) No Adder	0.0874	\$1,489,433	\$1,631,505	\$142,072	1.095
Utility Cost Test (UCT)	0.0849	\$1,446,391	\$1,631,505	\$185,114	1.128
Rate Impact Test (RIM)		\$2,999,050	\$1,631,505	(\$1,367,545)	0.544
Participant Cost Test (PCT)		\$43,043	\$2,065,397	\$2,022,355	47.985
Lifecycle Revenue Impacts (\$/kWh)				\$0.0000267717	
Discounted Participant Payback (years)				0.16	

**Table 40****Home Energy Savings**

All Measures				AC: IRP 46% LF Decrement	
	Levelized \$/kWh	Costs	Benefits	Net Benefits	Benefit/Cost Ratio
Total Resource Cost Test (PTRC) + Conservation Adder	0.0696	\$30,472,425	\$49,628,140	\$19,155,715	1.629
Total Resource Cost Test (TRC) No Adder	0.0696	\$30,472,425	\$45,116,491	\$14,644,066	1.481
Utility Cost Test (UCT)	0.0581	\$25,439,423	\$45,116,491	\$19,677,069	1.773
Rate Impact Test (RIM)		\$71,997,604	\$45,116,491	(\$26,881,113)	0.627
Participant Cost Test (PCT)		\$5,033,002	\$60,388,739	\$55,355,736	11.999
Lifecycle Revenue Impacts (\$/kWh)				\$0.0004776176	
Discounted Participant Payback (years)				0.73	

**Table 41****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	0.0363	\$1,847,740	\$4,010,116	\$2,162,376	2.170
Total Resource Cost Test (TRC) No Adder	0.0363	\$1,847,740	\$3,645,560	\$1,797,820	1.973
Utility Cost Test (UCT)	0.0459	\$2,339,080	\$3,645,560	\$1,306,480	1.559
Rate Impact Test (RIM)		\$7,033,454	\$3,645,560	(\$3,387,893)	0.518
Participant Cost Test (PCT)		(\$491,340)	\$11,732,057	\$12,223,397	NA
Lifecycle Revenue Impacts (\$/kWh)				\$0.0000938295	
Discounted Participant Payback (years)				NA	

**Table 42****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	0.0179	\$162,352	\$652,493	\$490,142	4.019
Total Resource Cost Test (TRC) No Adder	0.0179	\$162,352	\$593,176	\$430,824	3.654
Utility Cost Test (UCT)	0.0179	\$162,352	\$593,176	\$430,824	3.654
Rate Impact Test (RIM)		\$881,517	\$593,176	(\$288,342)	0.673
Participant Cost Test (PCT)		\$0	\$730,352	\$730,352	NA
Lifecycle Revenue Impacts (\$/kWh)				\$0.0000062701	
Discounted Participant Payback (years)				NA	

**Table 43**  
**2009 Non Residential or Business Energy Efficiency Portfolio**

	Levelized \$/kWh	Costs	Benefits	Net Benefits	Benefit/Cost Ratio
Total Resource Cost Test (PTRC) + Conservation Adder	0.0428	\$25,656,834	\$74,167,585	\$48,510,751	2.891
Total Resource Cost Test (TRC) No Adder	0.0428	\$25,656,834	\$67,425,078	\$41,768,243	2.628
Utility Cost Test (UCT)	0.0240	\$14,425,684	\$67,425,078	\$52,999,394	4.674
Rate Impact Test (RIM)		\$63,129,910	\$67,425,078	\$4,295,167	1.068
Participant Cost Test (PCT)		\$11,231,150	\$61,155,348	\$49,924,198	5.445
Lifecycle Revenue Impacts (\$/kWh)				(\$0.0000178437)	

**Table 44**  
**Energy FinAnswer**

All Measures				AC: IRP 65% LF Decrement	
	Levelized \$/kWh	Costs	Benefits	Net Benefits	Benefit/Cost Ratio
Total Resource Cost Test (PTRC) + Conservation Adder	0.0339	\$13,178,485	\$38,452,124	\$25,273,640	2.918
Total Resource Cost Test (TRC) No Adder	0.0339	\$13,178,485	\$34,956,477	\$21,777,992	2.653
Utility Cost Test (UCT)	0.0198	\$7,696,829	\$34,956,477	\$27,259,647	4.542
Rate Impact Test (RIM)		\$31,313,236	\$34,956,477	\$3,643,241	1.116
Participant Cost Test (PCT)		\$5,481,655	\$30,183,410	\$24,701,755	5.506
Lifecycle Revenue Impacts (\$/kWh)				(\$0.0000094176)	
Discounted Participant Payback (years)				2.06	

**Table 45**  
**FinAnswer Express**

All Measures				AC: IRP 65% LF Decrement	
	Levelized \$/kWh	Costs	Benefits	Net Benefits	Benefit/Cost Ratio
Total Resource Cost Test (PTRC) + Conservation Adder	0.0358	\$9,507,387	\$24,571,426	\$15,064,039	2.584
Total Resource Cost Test (TRC) No Adder	0.0358	\$9,507,387	\$22,337,660	\$12,830,273	2.350
Utility Cost Test (UCT)	0.0150	\$3,990,314	\$22,337,660	\$18,347,345	5.598
Rate Impact Test (RIM)		\$21,942,125	\$22,337,660	\$395,535	1.018
Participant Cost Test (PCT)		\$5,517,073	\$22,783,436	\$17,266,363	4.130
Lifecycle Revenue Impacts (\$/kWh)				(\$0.0000012139)	
Discounted Participant Payback (years)				2.51	

**Table 46****Re-Commissioning**

All Measures				AC: IRP 16% LF Decrement	
	Levelized \$/kWh	Costs	Benefits	Net Benefits	Benefit/Cost Ratio
Total Resource Cost Test (PTRC) + Conservation Adder	0.0217	\$1,179,872	\$5,451,948	\$4,272,076	4.621
Total Resource Cost Test (TRC) No Adder	0.0217	\$1,179,872	\$4,956,317	\$3,776,444	4.201
Utility Cost Test (UCT)	0.0174	\$947,450	\$4,956,317	\$4,008,866	5.231
Rate Impact Test (RIM)		\$4,751,652	\$4,956,317	\$204,665	1.043
Participant Cost Test (PCT)		\$232,422	\$3,869,482	\$3,637,060	16.649
Lifecycle Revenue Impacts (\$/kWh)				(\$0.0000012652)	
Discounted Participant Payback (years)				0.37	

**Table 47****Self Direction**

All Measures				AC: IRP 65% LF Decrement	
	Levelized \$/kWh	Costs	Benefits	Net Benefits	Benefit/Cost Ratio
Total Resource Cost Test (PTRC) + Conservation Adder	0.0231	\$1,791,090	\$5,692,087	\$3,900,997	3.178
Total Resource Cost Test (TRC) No Adder	0.0231	\$1,791,090	\$5,174,625	\$3,383,534	2.889
Utility Cost Test (UCT)	0.0231	\$1,791,090	\$5,174,625	\$3,383,534	2.889
Rate Impact Test (RIM)		\$5,122,897	\$5,174,625	\$51,727	1.010
Participant Cost Test (PCT)		\$0	\$4,319,019	\$4,319,019	NA
Lifecycle Revenue Impacts (\$/kWh)				(\$0.0000001337)	
Discounted Participant Payback (years)				NA	

## **Appendices:**

Appendix 1 – Cost Effectiveness Details

Appendix 2 – Rocky Mountain Power DSM Summary (2001 – 2008)