Rocky Mountain Power

# 2010 Annual Energy Efficiency and Peak Reduction Report - Utah

Revised on September 1, 2011

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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 (the "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 (the "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, 2010 through December 31, 2010 are summarized in Table 1 on the following page.

Table 1<sup>1</sup>

2010 Total Portfolio Performance (Load Management, Energy Efficieency and Marketing)						
DSM Cost Adjustment Revenues Collected			\$ 73,831,154			
Program Expenditures (Excludes Self Direction Credits)			\$ 46,882,525			
Total Expenditures Including Self Direction Credits			\$ 49,409,362			
MW Under Load Management (Gross at Generation)			172.8			
2010 Target for Load Management (Gross at Generation)			171.0			
Energy Efficiency First Year Savings MWh/Yr (Gross at General Control of the Cont	ration)		218,755			
Estimated MW Savings from 2010 Energy Efficiency Acquisition	ons (Gross at C	Generation)	36.5			
2008 Integrated Resource Plan Targets for 2010 - MWh			197,535			
Estimated MW Savings from Energy Efficiency and Load Man	agement (Gros	s at Gen)	209.3			
Estimated Lifetime MWH Savings from 2010 Energy Efficiency		2,450,054				
	PTRC	TRC	UCT	RIM	PCT	
Cost Effectiveness (Five Tests)	2.015	1.832	1.821	1.048	7.072	
Levelized Cost (\$/kWh)	NA	NA	NA			
Lifecycle Revenue Impact (\$/kWh)	NA					

Participation in the load management programs increased between 2009 and 2010 by approximately 11 percent providing the Company with 173 megawatts (at generation) of load under management. First year energy savings between 2009 and 2010 achieved through energy efficiency programs decreased by 12 percent. In 2009 the Company offered CFL's for all 12 months. In 2010 the Company exited the CFL market for a 6 month period consistent with the tariff. During that period, the Company received approval to offer CFL's year round beginning in 2011.

Overall expenditures decreased by 15 percent between 2009 and 2010.

At the end of 2010, the DSM tariff rider balancing account had an unfunded balance of \$2.2 million.

<sup>&</sup>lt;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 (all participating air conditioners and irrigation pumps were operating) and assumes all energy efficiency savings had been achieved for the year prior to that point in time. Estimated lifetime savings of 2010 Energy Efficiency Acquisitions was calculated by multiplying First Year Acquisitions (At Gen) by the weighted average measure life of the portfolio of 11.2 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.

# 2010 Performance and Activity

**Table 2**<sup>23</sup>

**Utah Demand Side Management Annual Results for 2010** 

	results for		kW/Yr	
		kW/Yr	Savings	Program
Load Management Programs	Units	(at site)	(at gen)	penditures
Cool Keeper (114)	104,921	110,044	120,878	\$ 4,836,269
Irrigation Load Control (96 and 96A)	<u>602</u>	49,100	<u>51,911</u>	\$ 2,512,712
Total Load Management	105,523	159,144	172,790	\$ 7,348,981
		kWh/Yr	kWh/Yr	
		Savings	Savings	Program
Energy Efficiency Programs	Units	(at site)	(at gen)	xpenditures
Low Income Weatherization (118)	1,273	1,917,712	2,106,511	\$ 258,422
Cool Cash (113)	5,210	2,521,763	2,770,031	\$ 1,490,290
Energy Star New Homes (110)	2,275	5,931,957	6,515,958	\$ 2,604,552
Refrigerator Recycling (117)	15,549	20,410,218	22,419,604	\$ 2,369,803
Home Energy Savings (111)	209,098	59,711,660	65,590,273	\$ 16,875,685
Total Residential	233,405	90,493,310	99,402,376	\$ 23,598,752
Energy FinAnswer (125)	40	17,506,721	19,148,676	\$ 3,246,075
FinAnswer Express (115)	720	27,399,416	29,969,207	\$ 4,107,148
Recommissioning (126)	14	7,231,291	7,909,514	\$ 986,414
Self Direction	<u>5</u>	<u>1,164,050</u>	1,273,226	\$ 186,835
Total Commercial	779	53,301,478	58,300,624	\$ 8,526,473
Energy FinAnswer (125)	51	33,191,521	35,092,067	\$ 4,523,593
FinAnswer Express (115)	126	8,557,455	9,047,455	1,019,080
Self Direction (192)	<u>19</u>	15,996,343	16,912,294	330,072
Total Industrial	196	57,745,319	61,051,816	\$ 5,872,745
Outreach & Communications + Class 4				
Power Forward				\$ 50,092
Outreach and Communication Campaign				\$ 1,485,482
Total Energy Efficiency		201,540,107	218,754,816	\$ 39,533,544

Total System benefit Expenditures - All Programs \$ 46,882,525

Self Direction Credits \$ 2,526,837

Total Utah Program Expenditures \$ 49,409,362

Check Sum from Goals 201,540,107 \$ 49,409,362

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<sup>&</sup>lt;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 9.85 percent for residential, 9.38 percent for commercial and 5.73 percent for industrial. These values are based on the Company's 2007 Transmission and Distribution Loss Study by Management Applications Consulting published in October 2008.

<sup>&</sup>lt;sup>3</sup> Total Load Management availability of system peak: 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 (all participating air conditioners and irrigation pumps were operating) and assumes all energy efficiency savings had been achieved for the year prior to that point in time.

### **Major Trends and Activities**

In 2010, the Company realized an increase in load management acquisitions. The load management programs delivered 11 percent more kW under control. Loads under management increased 7 percent for Cool Keeper and 17 percent for the Irrigation Load Control program during 2010. Energy efficiency savings decreased 12 percent when compared to 2009 which is mostly attributed to a decrease in 2010 CFL activity between the two years.

At a sector lever, the residential sector savings decreased 20 percent on a kWh/year basis compared to 2009. The commercial sector delivered approximately 3 percent more kWh/year savings than in 2009. The industrial savings decreased 9 percent in 2010 compared to 2009.

Expenditures related to program delivery decreased in 2010 compared to 2009. Overall portfolio expenditures decreased by 15 percent compared to 2009, with load management expenses decreasing 41 percent<sup>4</sup>, energy efficiency programs decreased 9 percent and the implementation of Outreach and Communications campaign adding approximately \$1,485,000 to overall expenditures. At a sector level, residential energy efficiency expenditures decreased by 21 percent while expenditures for commercial increased by 26 percent and industrial decreased by 3 percent.

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<sup>&</sup>lt;sup>4</sup> Reduction in load management program expenditures was driven by contractual price decrease within the Cool Keeper program delivery vendor agreement.

### **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 following 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

The portfolio and programs were cost effective with a UCT benefit/cost ratio of more than 1.0, excluding Energy Star New Homes. Overall, the portfolio generated more than \$90 million in Net Benefits on a UCT basis and more than \$91 million in Net Benefits on a TRC basis. The entire program portfolio was cost effective across all five cost effectiveness tests. At the sector and program levels, four of the five tests produced a benefit/cost ratio greater than 1.0 (residential programs and residential sector did not pass the ratepayer impact test).

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

### **Program Evaluation**

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) provides an outline of evaluations for each program in Rocky Mountain Power's Utah DSM portfolio.

Table 3

### **Program Evaluation Timeline**

Program	Evaluation Type	Status	Anticipate d Year Complete	Program Year(s) Evaluated	Evaluator
Low Income Weatherization	Impact	In Process	2011	2007-2009	Cadmus
Home Energy Savings	Process and Impact	Planning	2011	2009-2010	TBD
SYLR	Process and Impact	Planning	2011	2009-2010	TBD
Cool Cash	Process and Impact	Planning	2011	2009-2010	TBD
Energy Star New Homes	Process and Impact	Planning	2011	2009-2010	TBD
Cool Keeper	Process and Impact	Planning	2011	2009-2010	TBD
Energy FinAnswer	Process and Impact	Planning	2012	2009-2011	TBD
FinAnswer Express	Process and Impact	Planning	2012	2009-2011	TBD
Recommissioning	Process and Impact	Planning	2012	2009-2011	TBD
Self Direction	Process and Impact	Planning	2012	2009-2011	TBD
Irrigation Load Control	Process/Impact or analysis	Planning	2012	2011-2012	TBD

In 2010, process and impact evaluations were completed for the Cool Cash, Energy Star New Homes, Home Energy Savings, See ya later, refrigerator®, Energy FinAnswer, FinAnswer Express, Re-Commissioning and the Self Direction programs. The results of these evaluations are available on PacifiCorp's website at <a href="http://www.pacificorp.com/es/dsm/utah.html">http://www.pacificorp.com/es/dsm/utah.html</a>. Findings from these evaluations will be key inputs to on-going program design and modification as well as inputs to future cost effectiveness determinations.

### Plans for 2011

Program design modifications are underway for Rocky Mountain Power's residential new construction program. The design modifications are intended to evolve the program requirements to align with Energy Star 2.5 and 3.0 guidelines; further influence efficiency in new construction practices; encourage the greater application of efficient lighting, appliance, and equipment technologies; and improve program economics. A non-Energy Star New Home effort is being consider, existing and future program modifications will be dependent on factors affecting the cost effectiveness.

With approval from the Public Service Commission of Utah, Rocky Mountain Power expanded the definition of premium evaporative cooling equipment in the Cool Cash program to include rigid media evaporative cooling systems. This technology is ideally suited for use in Utah; a climate with low humidity and large diurnal temperature swings.<sup>5</sup>

A review of the Home Energy Savings program will be completed in 2011 to ensure the program continues to effectively meet Rocky Mountain Power's Utah residential customer needs. Changes to the existing appliance and weatherization categories will be evaluated. Addition of a home electronics category will also be analyzed.

Program reviews of the Energy FinAnswer, FinAnswer Express and Re-Commissioning programs will be completed in 2011 to ensure the programs are working effectively at meeting the needs of Rocky Mountain Power's Utah business customers. Upon the completion of these reviews, the Company will propose changes as warranted.

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.

Program impact and process evaluations for years 2009 and 2010 will be completed for the Company's suite of residential energy efficiency programs and a process evaluation of the Cool Keeper air conditioner load management program. The results of these evaluations will be included in the Company's 2011 annual report, to be filed by March 31, 2012.

Rocky Mountain Power is also investigating three new program offerings which may be proposed for introduction in 2011: a commercial and industrial load curtailment program, a commercial energy efficiency direct install program and a residential home comparison report program intended to educate customers on their energy usage and help them save energy and money.

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<sup>&</sup>lt;sup>5</sup> Refer to Docket No. 11-035-T01.

# **Advisory Group Meetings**

On January 20, 2010, Rocky Mountain Power participated with the Demand-Side Management Advisory Group ("Advisory Group") and other interested parties in a technical conference to review and discuss modifications to Schedule 193 terms and conditions and to review and discuss modifications to the terms and processes of Schedule 193.

On February 23, 2010, Rocky Mountain Power met with the Advisory Group to discuss the plan and budget for the 2<sup>nd</sup> year of the outreach and communications campaign, the concept of Home Energy Reports, the Cool Cash program incentive structure and planned changes to the Home Energy Savings and FinAnswer Express programs.

On March 2, 2010, the Company met with the Advisory Group to discuss possible revisions to Schedule 193.

# **Outreach and Communications**

### wattsmart

On June 11, 2009, the Public Service Commission of Utah approved Rocky Mountain Power's proposal to implement an outreach and communications campaign in Utah. The overarching objective of the program is to promote energy efficiency and conservation through education and increase customer awareness of and participation in the Company's demand-side management programs.

### During 2010, Rocky Mountain Power:

- developed and launched the *watt* smart multimedia campaign (Spring 2010)
- developed the Cool Keeper testimonial campaign (Summer 2010)
- participated in the Utah Jazz/Salt Lake Bees Green Team sponsorship
- participated in the National Education Foundation "Take Action At Home" campaign

### wattsmart advertising campaign

The *watt*smart advertising campaign that began in April 2010 drives interest in all DSM campaign activities, including generating residential and business commitments to reduce energy use and increasing participation in Rocky Mountain Power's DSM programs.

Campaign messages included: *watts*mart introduction, summer rates, Cool Keeper testimonials, peak usage times, ceiling fans/cooling, home improvement, turning off lights, cutting kilowatts, and how to operate your thermostat efficiently.

**Television:** The Company rotated a selection of ads, both 30-second and 15-second TV spots an average of 137 TV placements each week from April through September 2010. TV Stations on which campaign spots were aired include: KJZZ-TV, KSL-TV, KSTU-TV, KTVX-TV, KUCW-TV, KUTH-TV, and KUTV-TV.

**Radio:** Radio spots began airing during the week of April 25. The Company ran an average of 189 radio spots per week. Radio stations on which campaign spots were aired include: KBMG-FM, KDUT-FM, KEGA-FM, KJMY-FM, KSFI-FM, KSL-AM, KSOP-FM, KUBL-FM, KUER-FM, KZHT-FM, and KKEX-FM

**Print:** Newspaper ads began running during the week of April 19. Business publication ads started in early April. Newspapers in which campaign ads were shown include: Salt Lake Tribune, Deseret News, The Standard Examiner, The Daily Herald, The Spectrum, Logan Herald Journal, Ahora Utah, Beaver Press, Blue Mountain Panorama, Emery County Progress Combo, Gunnison Valley Gazette, Millard County Chronicle Progress, Moab Times, Park City Record, Price Sun-Advocate, Richfield Reaper, Sanpete Messenger, Tooele Transcript, Vernal Express, and Wasatch Wave

Business publications in which campaign ads were shown include: The Enterprise, Utah County Business Journal, Wasatch North Business Journal and Utah Business magazine.

**Transit:** Advertising on UTA started in the Salt Lake metro area the week of May 3 and continued through mid October. These included graphic covers of the entire side of UTA busses, including some graphics on windows and graphic rectangular posters on the side of the bus.

**Online:** Advertisements started in early April and ran through September. The sites on which campaign ads ran included: KSTU (<a href="www.fox13now.com/">www.fox13now.com/</a>), sltrib.com, heraldextra.com and Facebook. The Company also utilized Google AdWords for keyword searches in Utah. AdWords offers pay-per-click advertising and site-targeted advertising for text, banner, and rich-media ads.

### **Utah Jazz/Salt Lake Bees**

The Green Team initiative with the Utah Jazz/Salt Lake Bees and Questar was promoted during 2010. For the sponsorship, the Company:

- Utilized wattsmart radio spots and television spots on Jazz game broadcasts.
- Developed and ran two *Voices* newsletter articles (January and March) in residential customer bills promoting the sponsorship.
- Print ad placement in Utah Jazz game programs.
- Green games: One Utah Jazz Game on April 6 and two Salt Lake Bees Games during which the Company promoted the wattsmart concept and energy efficiency tips and programs.

### **National Education Foundation**

A total of 52 schools in Utah received the energy efficiency curriculum in spring 2010. A team of seasoned, professional presenters delivered the program presentations. A presenter training session was held on April 21 to familiarize presenters with specific program needs and requirements, educate presenters on program sponsors and delivery, and give presenters student and teacher materials to be delivered to recipients at each presentation site.

### **Social Media**

Utilizing the existing Rocky Mountain Power Utah Twitter account (twitter.com/RMP\_Utah), the Company developed a messaging plan to promote, recruit and inform customers about the

*watts*mart launch at the Utah Jazz Green Game as well as encouraging participation amongst fans to become part of the Utah Jazz Green Team.

Additionally, Rocky Mountain Power created a Facebook community page <a href="https://www.facebook.com/rockymountainpower.wattsmart">www.facebook.com/rockymountainpower.wattsmart</a> to help promote the <a href="https://wattsmart</a> programs and conservation ideas. The Company posted daily <a href="https://wattsmart</a> tips on the Facebook page and provided weekly updates on the twitter account. The Company also ran a Facebook ad in May to generate additional <a href="https://wattsmart.gov/wattsmart">wattsmart</a> fans and doubled <a href="https://wattsmart.gov/wattsm

### **Home Energy Savings**

Several point-of-sale materials were produced to help customers choose high efficiency products.

Inserts were included in all residential customer bills in Utah four times covering the following topics:

- Light fixtures & CFLs, February
- Energy-efficient appliance incentives including Utah Appliance Rebate program and See ya later, refri*gerator*<sup>®</sup>, May
- Room air conditioners and ceiling fan incentives including Utah appliance rebates available within the Home Energy Savings program, July
- Specially priced CFLs, October

Specially priced CFLs were promoted from October through December 2010 through news releases, direct mail, in-store promotions, social media and on the website.

# See ya later, refrigerator®

Television, newspaper and online ads for the See ya later, refrigerator® recycling program ran in the Salt Lake market from February through November. In addition inserts were included in March, May (joint with Home Energy Savings), July and September bills.

### Load control

Cool Keeper and Irrigation Load Control program participants were acknowledged in an ad in Salt Lake Tribune, Deseret News, The Standard Examiner newspapers at the end of August.

### **Energy FinAnswer & FinAnswer Express**

Radio, newspaper and online ads for our commercial efficiency programs were placed each quarter in Utah. This included a thank you ad in February recognizing Utah businesses for completing energy savings projects in the prior year, 2009.

### **Events**

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 events and activities from 2010 are listed below:

February 4<sup>th</sup> - Utah Energy Efficiency Alliance Workshop, Sandy

April 8<sup>th</sup> - Salt Lake Sustainable Building Conference, Salt Lake City

October 8-10<sup>th</sup> - ENERGY STAR® Summit and Deseret News Fall Home Show, Sandy October 29<sup>th</sup> - American Institute of Architects (AIA) Utah Design Conference, Salt Lake City

# Company Filings with the Public Service Commission of Utah

The Company made several filings with the Commission regarding demand-side management during 2010. The dates of the filings with brief descriptions are provided below:

### **Self Direction Credit Program Filing**

Filed on February 23, 2010 to raise the annual caps of the Self Direction Credit Program in Docket No. 10-035-T03.

### 2010 Annual Report

Filed on March 31, 2010 in Docket No. 10-035-37.

### **Demand-side Management Communications Plan**

Filed the 2nd year plan on April 1, 2010 in Docket No. 09-035-36 and filed the 1st year performance report on October 14 in the same docket.

### **Home Energy Savings Program Filing**

Filed program modifications to the Home Energy Savings program on June 3, 2010 in Docket No. 10-035-T05.

### **FinAnswer Express Program Filing**

Filed program modifications for the FinAnswer Express program on June 24, 2010 in Docket No. 10-035-T09.

### **Self Direction Program Administrator Reports**

Filed on July 12, 2010 program administrator reports for the Self Direction Program for program years 2007, 2008 and 2009.

### 2011 Forecast

Filed on November 1, 2010 in Docket No. 10-035-57.

### **Schedule 193 Adjustment Filing**

Filed on December 9, 2010 to reduce the demand-side management surcharge in Docket No. 10-035-T14.

### **Energy Star New Homes Program Filing**

Filed on December 28, 2010 to adjust the Energy Star New Homes program tariff in Docket No. 10-035-T16.

# **2010 Performance Compared to Forecast**

In 2010, the Company delivered against Utah targets of 197,535 MWh/year of energy efficiency and 171 MW of load management as contained in the 2008 IRP. These targets were filed with the commission on November 2, 2009.

The Company exceeded these targets with energy efficiency acquisitions of 218,755 MWh/year and 172.8 MW of load management resources under program control.

Table 4

Rocky Mountain Power - Utah	2010 Fo	2010 Forecast (Gross - At Gen) 2010		2010 Forecast (Gross - At Gen) 20			actual (Gross	- At Gen)
Programs	MW	MWh	Costs	MW	MWh	Costs		
Cool Keeper	118		\$5,994,772	120.9		\$4,836,269		
Irrigation Load Control	53		\$2,331,375	51.9		\$2,512,712		
Total load control/management	171		\$8,326,147	172.8		\$7,348,981		
Central A/C "Cool Cash"		1,628	\$901,696		2,770	\$1,490,290		
Home Energy Savings		68,079	\$20,600,000		65,590	\$16,875,685		
Refrig Recycle "SYLR"		22,351	\$2,700,000		22,420	\$2,369,803		
Low Income Wx		1,214	\$250,000		2,107	\$258,422		
Energy Star New Homes		2,523	\$1,695,000		6,516	\$2,604,552		
Energy FinAnswer		45,030	\$9,150,000		54,241	\$7,769,668		
FinAnswer Express		39,520	\$5,725,000		39,017	\$5,126,228		
Self-Direction		9,990	\$262,500		18,186	\$516,907		
Recommissioning		7,200	\$1,268,600		7,910	\$986,414		
Total Energy Efficiency		197,535	\$42,552,796		218,755	\$37,997,970		
Outreach and Communication Program		9	1,524,000			\$ 1,485,482		
Power Forward	20-200		\$50,000	20-200		\$ 50,092		
Total Expenditures (tariff rider)			\$52,452,943			\$46,882,525		
Self-Direction Credits issued			\$3,062,947			\$2,526,837		

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<sup>&</sup>lt;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 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 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 Utah customers 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 5

2010 Load Management Portfolio Performance							
kW Under Control (Gross - At Gen)		172,790					
kW Under Control (At Site)		159,144					
Total Expenditures	\$	7,348,981					
Incentives Paid	\$	3,260,556					
		PTRC	TRC	UCT	RIM	PCT	
Program Cost Effectiveness		2.216	2.015	1.491	1.491	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 2007, Utah's irrigation load management program provides participating agricultural customers on Schedule 10 load control service credits in exchange for growers curtailing irrigation pumping loads during summer afternoons, June 1st through August 31st annually. 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 day-ahead dispatchable control option, irrigation equipment is set up with a two-way control system. Customers who participate are notified 24 hours in advance of control events and have the choice to opt-out of a limited number of dispatch events per season. Annual load service credits for this program are paid on a graduated basis depending on total program participation. In 2010, load control service credits were \$28 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 25hp and above. Participating pumps less than or equal to 25hp in size incur a one-time \$170 set-up fee upon initial enrollment.

For the on-call day ahead dispatchable control option, pump sizes generally must meet a minimum motor size requirement of 10hp to qualify and there are no customer costs to participate. Growers may, however, experience reductions in their participation credits for charges associated with opting out of a control event.

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

Table 6

2010 Irrigation Load Control Program Performance						
MW Under Control (Gross at Gen)		51.9				
MW Under Control (At Site)		49.1				
Expenditures - Total	\$	2,512,712				
Participation Credits	\$	1,321,171				
Program Operations Expense	\$	1,191,541				
Participation (Customers)		191				
Participation (Sites)		602				
		PTRC	TRC	UCT	RIM	PCT
Program Cost Effectiveness		3.510	3.190	1.520	1.520	NA
Levelized Cost (\$/kWh)		NA	NA	NA		
Lifecycle Revenue Impact (\$/kWh)		NA				

### **Program Reporting**

Program results reflect the nominal 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 nominal reductions from the fixed scheduled control option program and the day ahead dispatchable control option program.

### **Cost Effectiveness**

The Irrigation Load Control program was cost effective from all cost benefits tests. 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 ex-ante savings for 2010, informed by the program's measurement and verification results from the prior year's control season.

### Plans for 2011

The Company may propose changes to the irrigation load management program, including combining the two programs (Schedules 96 and 96a) into one tariff for ease of future administration.

# **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 and heat pumps. On select summer weekday afternoons, when electricity demand is at its highest, the Cool Keeper control equipment installed on a participating customer's cooling equipment is sent a signal to cycle the operation of the air conditioners compressor "off and on" for brief periods each hour in coordination with the air conditioners of other participating customers. Over 70 percent of program participants do not notice these slight interruptions in cooling and 98 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 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 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. Participation has exceeded the initial megawatt objective by 22 percent, with approximately 110 megawatts (at site) under management.

Program results for 2010 are provided in the following table:

Table 7

2010 Cool Keeper Program Performance							
kW Under Control (Gross - At Gen)		120,878					
kW Under Control (At Site)		110,044					
Total Expenditures	\$	4,836,269					
Incentives Paid	\$	1,939,385					
Total Participation		104,921					
Residential		104,398					
Commercial		523					
		PTRC	TRC	UCT	RIM	PCT	
Program Cost Effectiveness		2.180	1.990	1.490	1.490	NA	
Levelized Cost (\$/kWh)		NA	NA	NA		•	
Lifecycle Revenue Impact (\$/kWh)		NA					

### **Major Trends and Activities**

At the end of 2010, participation was 7 percent higher than in 2009 with 104,921 units enrolled in the program providing more than 120 MW of temperature dependent load under control.

### **Cost Effectiveness**

The 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. Reported savings for the program utilize ex-ante savings for 2010, informed by the program's measurement and verification results from the prior year's control season.

### **Program Evaluation**

The program is implemented by a third party delivery vendor under a pay-for-performance contract structure. 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 meter data is used to assess the performance of the control network at large. 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 program reporting and tracking.

### Plans for 2011

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. Rocky Mountain Power intends to evaluate the Program's performance and customer processes using an independent evaluator in order to verify delivery compliance and ensure that the program's contractual measurement and verification protocol is being accurately administered and followed.

In addition, on March 28, 2011, the Company filed administrative modifications to the program. The modifications are intended to 1) improve the content of the tariff from an organizational perspective; 2) add clarity to program delivery parameters and participation requirements; and 3) eliminate tariff language that is outdated and/or no longer relevant to the operation of the program.

### **PowerForward**

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 portfolio but are not included in either the load management or energy efficiency portfolio looks.

# **Energy Efficiency Programs and Activity**

Energy efficiency programs 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 2010 Energy Efficiency Portfolio are presented in the following table:

Table 8

2010 Energy Efficiency Portfolio Performance							
System Benefit Expenditures (Excludes Self Direction C	redits)		\$39,533,544				
Total Expenditures Including Self Direction Credits			\$42,060,381				
Energy Efficiency First Year Savings MWh/Yr (Gross at	t Generation)		218,754,816				
Energy Efficiency First Year Savings MWh/Yr (at Site)		201,540,107					
	PTRC	TRC	UCT	RIM	PCT		
Portfolio Cost Effectiveness	1.844	1.676	2.356	0.804	6.032		
Levelized Cost (\$/kWh)	\$ 0.0490	\$0.0490	\$ 0.0349				
Lifecycle Revenue Impact (\$/kWh)	\$0.0001299						

# **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. 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 a 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.

Table 9

2010 Cool Cash Program Performance					
kWh Savings 2010 (Gross - At Gen)			2,770,031		
kWh Savings 2010 (At Site)			2,521,763		
Total Expenditures			\$ 1,490,290		
Incentives Paid (Inlcudes Customer Incentives	and Dealer Incen	tives)	\$ 900,725		
	PTRC	TRC	UCT	RIM	PCT
Program Cost Effectiveness	NA	NA	1.253	0.758	NA
Levelized Cost (\$/kWh)	\$ (0.0150)	\$ (0.0105)	\$ 0.1517		
Lifecycle Revenue Impact (\$/kWh)	\$ 0.000008900				

Details of 2010 measure level participation are provided on the following table:

Table 10

Table 10		
Cool Cash Program Participation		kWh/Year
		Savings
	Units	(at Site)
Evaporative Cooling - Replacements	509	616,908
Evaporative Cooling - New	415	496,920
Evaporative Cooling - Premium Only	310	364,812
Evaporative Cooling - Premium whole house		
ducted system	22	24,240
Central Air Conditioning - Sizing + TXV	1,027	271,625
Central Air Conditioning - Properly Installed	1,247	110,538
Central Air Conditioning - 15+SEER/12.5EER	1,680	636,720
Totals	5,210	2,521,763

### **Major Trends and Activities**

Participation increased by 130 percent and savings were 174 percent higher in 2010 than in 2009. Program expenses were also 198 percent higher than in 2009. There was a 400 percent increase in participation in the evaporative cooling measures. Increased focus on training existing equipment dealer and installers to influence the purchasing decision of end-use customer who are adding or replacing cooling equipment have significantly contributed to the program participation and savings.

### **Cost Effectiveness**

The Cool Cash program was cost effective from only the UCT test perspective. Cost benefit ratios for PTRC and TRC are listed as NA since the customer cost per unit have a negative value, so a benefit cost ratio has no meaning. 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 ex-ante savings for 2010, with deemed savings adjusted from prior year's evaluation and/or other relevant studies.

### **Program Evaluation**

A process and impact evaluation was completed in 2010 for the Cool Cash program for years 2007-2008. The result of this evaluation is available on PacifiCorp's website at <a href="http://www.pacificorp.com/es/dsm/utah.html">http://www.pacificorp.com/es/dsm/utah.html</a>

### Plans for 2011

Plans for 2011 include conducting a market assessment study to re-evaluate individual measures and their associated savings in order to accurately capture changes occurring in the central air conditioning and evaporative cooling industry and markets. In addition, a continued emphasis will be placed on increasing the participation in the evaporative cooling market as well as overall program participation.

# **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 a third party administrator hired by the Company. To help ensure homes are eligible for program incentives, a home must exceed current energy code by at least 15 percent. The program is typically reassessed on an annual basis and any changes necessary are filed with the Commission for review and approval.

Program results for 2010 are provided in the following table.

Table 11

2010 Energy Star New Home Program Performance						
kWh Savings 2010 (Gross - At Gen)	6,515,958					
kWh Savings 2010 (At Site) 5,931,957						
Total Expenditures	\$ 2,604,552					
Incentives Paid	ncentives Paid \$ 1,335,170					
	PTRC	TRC	UCT	RIM		
Program Cost Effectiveness	1.010	0.918	0.918	0.498		
Levelized Cost (\$/kWh)	0.1160	0.1160	0.1160			
Lifecycle Revenue Impact (\$/kWh)	\$0.000052438					
Discounted Participant Payback (Years)	NA					

Details of 2010 measure level participation are provided in Table 12 on the following page:

Table 12

Tuble 12					
<b>Energy Star New Homes Measure Part</b>	2010 Totals				
		kWh/Yr			
		Savings			
Homes	Units	(at Site)			
Tier 1	1,349	2,364,797			
Tier 2	168	387,912			
Tier 3	3	9,699			
Multi Family Tier 1	408	408,816			
Multi Family Tier 2	347	223,815			
Total Homes	2,275	3,395,039			
Plus Measures					
14 SEER HVAC - SF	107	12,840			
14 SEER HVAC - MF	0	-			
Lighting Upgrade to 90% CFL MF	439	215,110			
Lighting Upgrade to 90% CFL SF	799	786,216			
Duct Placement	953	72,428			
ENERGY STAR Dishwasher	1,373	41,190			
ENERGY STAR Light Fixtures - SF	10,056	1,025,712			
ENERGY STAR Ceiling Fan	6	510			
Whole House Fan System	5	1,800			
Single Vent Evap Cooler	2	1,040			
High Efficiency Evap Cooler	7	6,440			
Ground Source Heat Pumps	24	373,632			
<b>Total Plus Measures</b>	13,771	2,536,918			
<b>Total Homes and Plus Measure Savings</b>	5,931,957				

### **Major Trends and Activities**

Participation increased by 9 percent in the Single-Family (Tier 1-3) category and energy savings were 15 percent higher in 2010 compared to 2009.

Multi-Family increased by 10 percent and energy savings were 109 percent higher in 2010 compared to 2009. The increase was a result of a tariff change in late 2009 which modified the tier structure and savings per measure for multi-family homes.

Participation in the Plus Measures category increased by 423 percent and energy savings increased by 284 percent due to activity in the Lighting and CFLs measure category. The ENERGY STAR light fixtures increased to 10,056 units in 2010 compared to 510 units in 2009.

Overall energy savings were 76 percent higher in 2010 compared to 2009; overall program expenditures were 80 percent higher.

In terms of program delivery, there were 152 builders with participation agreements in 2010 and all 152 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
- Participation in building code workshops

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 15 training sessions attracted 550 attendees.

### **Cost Effectiveness**

Energy Star New Home program was only cost effective on PTRC. The program has several factors contributing to the lower benefit/cost ratios. Realization rates and Net-to-gross ratios were reduced based on recent program evaluation (2006-2008). Realization rates decreased from 100 to 95 percent and Net-to-gross decreased 80 to 74 percent. The decrease in Net-to-gross suggests that residential building practices continue to improve in Utah due to several influencing factors and changes are warranted to remain ahead of the improvements in standard building practice. Not captured in the program economics are the effects of program spillover or ancillary efficiency gains achieved as a result of the program but not captured in the program's reported savings. The recent program evaluation confirmed these savings were occurring based on customer and builder survey data however the savings were not quantified suggesting that if they had been this would have had a positive or offsetting impact than that of the decrease in Realization and Net-to-gross ratios. Also impacting the program cost-effectiveness in 2010 were higher than normal expenses associated the program's multi-year (2006-2008) third-party evaluation work. Reported savings for the program utilize ex-ante savings for 2010, with deemed savings adjusted from prior year's evaluation and/or other relevant studies.

### **Program Evaluation**

A process and impact evaluation was completed in 2010 for the Energy Star New Homes program for years 2006-2008. The results of this evaluation is available on PacifiCorp's website at <a href="http://www.pacificorp.com/es/dsm/utah.html">http://www.pacificorp.com/es/dsm/utah.html</a>

### Plans for 2011

The Program will be undergoing the adoption of the National ENERGY STAR New Home Program, Version 2.5 on July 1, 2011 and Version 3.0 on January 1, 2012. The Company is currently assessing the costs and savings of adopting the upcoming versions and developing a redesign of measures and savings to be adopted in 2011 prior to the Version 2.5 deadline. Based on the recent process and impact evaluation, changes will occur in the program administration, measure design and incentive levels to lower program costs and sustaining savings. The Program will also focus on builder retention through the transition period and looking for additional savings opportunities in the new homes market in 2011 and beyond.

### **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 a third party administrator hired by the Company. Program information is available to the public at the Company's energy efficiency Web site at <a href="http://www.rockymountainpower.net/env/epi.html">http://www.rockymountainpower.net/env/epi.html</a>.

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) buydowns, 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 2010 are provided in the following table:

Table 13

2010 Home Energy Savings Program Performance						
kWh/Yr Savings 2010 (Gross - At Gen)			65,590,273			
kWh/Yr Savings 2010 (At Site)			59,711,660			
Expenditures	\$ 16,875,685					
Incentives Paid	\$ 11,925,710					
	PTRC	TRC	UCT	RIM	PCT	
Program Cost Effectiveness	1.197	1.088	1.407	0.586	5.926	
Levelized Cost (\$/kWh)	\$ 0.0975	\$ 0.0975	\$ 0.0754			
Lifecycle Revenue Impact (\$/kWh)	\$ 0.00046424					
Discounted Participant Payback (Years)	1.06					

Details of 2010 measure level participation are provided in Table 14 on the following page:

Table 14
2010 Home Energy Savings Measure Performance

2010 Home Energy Savings Weas	Unit			kWh/Yr Savings (Gross - At
Home Energy Savings Measures	Measurement	# of Units	<b>Participants</b>	Site)
Clothes Washer-Tier One (1.72 - 1.99 MEF)	Units	2,871	2,871	430,847
Clothes Washer-Tier Two (2.0 + MEF)	Units	17,056	17,056	2,902,621
Clothes Washer-Tier One (2.0 - 2.45 MEF)	Units	85	85	11,685
Clothes Washer-Tier Two (2.46 + MEF)	Units	102	102	16,337
CW Recycle	Units	403	403	55,544
Dishwasher	Units	7,085	7,085	148,140
Electric Water Heater	Units	23	23	2,183
Refrigerator	Units	9,314	9,314	812,889
Room AC	Units	247	247	22,553
Room AC Recycling	Units	0	0	0
Insulation: Attic-Tier One	Sq Feet	34,170,786	24,766	7,368,889
Insulation: Attic-Tier Two	Sq Feet	1,884,295	1,427	316,013
Insulation Spiff (Attic insulation + Floor/Wall)	Sq Feet	16	0	0
Insulation: Floor	Sq Feet	4,370	7	10,359
Insulation: Wall	Sq Feet	758,787	905	180,901
Windows	Sq Feet	740,296	5,233	192,274
CAC Tune up	Projects	3,467	3,467	208,498
Duct Sealing-Electric	Projects	38	38	66,498
Duct Sealing-Gas w/AC	Projects	397	397	33,348
Duct Insulation-Electric	Projects	0	0	0
Duct Insulation-Gas	Projects	227	227	98,672
Duct Sealing & Insulation - Electric	Projects	0	0	0
Duct Sealing & Insulation - Gas	Projects	0	0	0
Heat Pump Tune-Up	Projects	0	0	0
Ceiling Fans	Units	578	368	66,942
Fixtures	Units	5,931	2,465	499,182
CFLs-Twisters	Bulbs	1,018,643	101,864	36,665,116
CFLs-Specialty Bulbs	Bulbs	307,481	30,748	9,602,167
Totals		38,932,498	209,098	59,711,660
kWh/Yr Savings at Generation				65,590,273

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

### **Major Trends and Activities:**

- On July 19, 2010 the Public Service Commission of Utah issued an order in Docket No. 10-035-T05 approving the Company's proposed changes to the Home Energy Savings program effective September 1, 2010.
- Partnered with Questar Gas for a co-branded advertorial that ran in the Deseret News. There was no cost to Rocky Mountain Power customers.
- Lighting retail partnerships grew from 4 in January 2010 to 14 in December 2010, types of bulbs available increased from 15 in January to 128 in December, and total retail locations went from 20 in January to 200 by December.
- Key strategic retail partnerships were formed with Lowe's, K-Mart, Fresh Market, Dollar Tree, Family Dollar, Smith's, Walgreens and Winco.
- Program tariff changes require proper notification to contractors performing work. A process for communicating these changes was undertaken that included an in-person meeting to exchange information prior to the tariff change and a stream of email and phone calls for on-going notification and support.
- Program moved from part-time to full-time inspectors, resulting in improved contractor relationships and quality of contacts. In addition, significant inspection process improvements were made allowing automated tracking and reporting capabilities to support multiple program needs.
- 42 HVAC contractors received program training in 2010.

### **Cost Effectiveness**

The program was cost effective from all perspectives except the Ratepayer Impact Test. Appendix 1 provides detailed inputs used in the cost effectiveness analysis of this program as well as measure group cost effectiveness results. Reported savings for the program utilize exante savings for 2010, with deemed savings adjusted from prior year's evaluation and/or other relevant studies.

### **Program Evaluation**

A process and impact evaluation was completed in 2010 for the Home Energy Savings program for years 2006 to 2008. The result of this evaluation is available on PacifiCorp's website at <a href="http://www.pacificorp.com/es/dsm/utah.html">http://www.pacificorp.com/es/dsm/utah.html</a>.

### Plans for 2011

Build a stronger, localized, mid-market delivery

- Provide strong, localized merchandising
- Generate cross-sales of products
- Motivate partners (e.g. retailers, contractors and manufacturers, etc.) through ongoing evaluation and rewards

- Offer business development and sales support and materials
- Ensure 100 percent tariff compliance among trade partners

# Make the customer the focal point

- Reach customers through community-specific messaging
- Engage customers through the Rocky Mountain Power partner programs
- Reduce participation barriers through online applications

# Strategically manage the market

- Focus on lighting
- Manage the measure lifecycle

# 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. 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. Program awareness is generated through mass media advertising channels as well as Company channel communications such as the program's website, 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 and details of participation for 2010 are provided in the following tables:

Table 15

2010 See ya later, refrigerator® Program Performance						
kWh Savings 2010 (Gross - At Gen)				22,419,604		
kWh Savings 2010 (At Site)				20,410,218		
Expenditures			\$	2,369,803		
Incentives Paid			\$	466,470		
	PTRC	TRC		UCT	RIM	PCT
Program Cost Effectiveness	2.167	1.970		1.582	0.511	NA
Levelized Cost (\$/kWh)	\$ 0.0235	\$ 0.0235	\$	0.0293		
Lifecycle Revenue Impact (\$/kWh)	\$ 0.000162993				•	
Discounted Participant Payback (years)	NA					

Table 16
2010 See valater, refrigerator® Results

Refrigerator Recycling Measure	Unit Count	Per Unit Savings (kWh/Yr)	Gross Savings (kWh/Yr)
Refrigerator	12,490	1,149	14,351,010
Freezer	3,059	1,590	4,863,810
Total Units Recycled	15,549		19,214,820
Energy Savings Kits	14,758	81	1,195,398
	20,410,218		
	22,419,604		

### **Major Trends and Activities**

Participation for 2010 was 5 percent lower than in 2009, as the economic slowdown continued to impact program participation. However, the program did deliver more than 22,000 MWh of first year energy savings during the year, with program expenditures 1 percent higher than in 2009.

In terms of the impact of the program on the environment, processing the 15,549 units resulted in the recycling of more than 1.94 million pounds of metal, 388,700 pounds of plastics, 23.3 tons of tempered glass and the capture, recovery or destruction of more than 23,325 lbs of ozone depleting Chlorofluorocarbons ("CFC") and Hydrofluorocarbons ("HFC"), commonly used in refrigerants and blowing agents for polyurethane foam insulation. The Carbon Dioxide ("CO2") and Equivalent carbon dioxide ("CO2e") avoided from the atmosphere was in excess of 71,000 tons.

### **Cost Effectiveness**

The 2010 See ya later, refrigerator® program was cost effective from all cost tests except the rate impact test. 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 measure level cost effectiveness results. Reported savings for the program utilize ex-ante savings for 2010, with deemed savings adjusted from prior year's evaluation and/or other relevant studies.

### **Program Evaluation**

A process and impact evaluation was recently completed for the See ya later, refrigerator® program for years 2006-2008. The result of this evaluation is available on PacifiCorp's website at http://www.pacificorp.com/es/dsm/utah.html.

### Plans for 2011

The marketing campaign will incorporate a four-pronged approach to reaching customers and promoting the program, each of which are discussed in further detail below:

- Mass media/advertising
- Utility marketing channels
- Public relations
- Retail marketing/promotions

### **Mass Media Tactics**

Television, newspaper and digital media will be utilized to execute the 2011 media plan for the See ya later, refrigerator® program:

### **Utility Marketing Channels**

Utility involvement is a crucial component to marketing a successful appliance recycling program. The program administrator will explore all viable utility marketing channels available in 2011, including:

- Bill inserts Run bill inserts in March, April, June and August.
- eBill Messaging Pilot providing a static image to be embedded in an ebill.
- Take One Tear Pads Tear pads marketing the program will be developed for outreach events, retail stores, bill pay locations and other uses. The tear pads will provide details on the program, how to participate and contact information.

### **Public Relations**

The third party administrators public relations activities for the See ya later, refrigerator® program will focus on the development of several key media opportunities strategically designed to stimulate interest in, and generate momentum for, the program.

### **Retail Partnerships**

The third party administrator has developed partnerships with retail outlets in Utah and will continue to expand this strategy to target customers who are looking to purchase a new refrigerator and/or freezer while having their old one picked up at the same time the new one is delivered. These customers also receive the \$30 program incentive.

## **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 funding from the Company 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, 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 4,300 homes.

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

Table 17 summarizes program activities in 2010. Expenditures of \$258,422 were paid by Rocky Mountain Power in support of the program. Of those expenditures, \$221,881 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 17. The program was cost effective on both a total resource cost basis and a utility cost basis. A program evaluation is in progress and will be finalized in 2011. The cost for this program was \$203 per home. Reported savings for the program utilize ex-ante savings for 2010, with deemed savings adjusted from prior year's evaluation and/or other relevant studies.

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Low Income Weatherization Performance - Uta	ah					
kWh/Yr Savings (at Site)	1	,917,712				
kWh/Yr Savings (at Gen)	2	,106,511				
Expenditures - Total	\$	258,422				
Participation - Total # of Completed/Treated Home		1,273				
Number of Homes Receiving Specific Measures						
Efficient Furnace Fans		197				
Compact Fluorescent Light bulbs		23,268				
Replacement Refrigerators		495				
	Г	PTRC	TRC	UCT	RIM	PCT
Program Cost Effectiveness		5.887	5.352	5.352	0.824	NA
Program Cost Effectiveness					0.824	INA
Levelized Cost (\$/kWh)	\$	0.0138	\$ 0.0138	\$ 0.0138		
Lifecycle Revenue Impact (\$/kWh)	\$0.	0000053				

# **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 18

2010 Energy FinAnswer Program Performa	nce				
kWh/Yr Savings 2010 (Gross - At Gen)		54,240,744			
kWh/Yr Savings 2010 (At Site)		50,698,242			
Total Expenditures		\$ 7,769,668			
Incentives Paid		\$ 5,277,755			
	PTRC	TRC	UCT	RIM	PCT
Program Cost Effectiveness	2.384	2.167	4.365	1.096	3.460
Levelized Cost (\$/kWh)	\$ 0.0462	\$ 0.0462	\$ 0.0229		
Lifecycle Revenue Impact (\$/kWh)	\$ (0.0000833)				
Discounted Participant Payback (Years)	3.2				

Energy engineering for customer projects, supporting both projects with 2010 reported savings and projects that will generate savings in future periods, accounted for approximately \$1,572,000 of the total program expenditures. Energy engineering is performed by third party firms with professional services contracts in place with the Company. In 2010, Rocky Mountain Power had contracts with 24 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 2010 savings by type of measure are provided on the following table:

Table 19

Energy FinAnswer kWh Savings by Measure Type						
		kWh/ Yr. Savings	% of kWh			
	# of Projects	(At Site)	Savings			
Additional Measures	13	5,514,684	10.9%			
Building Shell	17	795,466	1.6%			
Compressed Air	22	9,256,794	18.3%			
Controls	11	234,373	0.5%			
HVAC	70	12,221,008	24.1%			
Lighting	43	7,128,270	14.1%			
Motors	20	6,442,050	12.7%			
Refrigeration	43	9,105,597	18.0%			
Tota	1 239	50,698,242				

#### **Major Trends and Activities**

A total of 239 Energy FinAnswer projects were completed in 2010 compared to 166 in 2009. Program specific energy savings decreased by approximately 14 percent compared to 2009, while program expenditures remained approximately the same.

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 energy consultants, program information was provided at the several energy efficiency events throughout the state in 2010.

#### **Cost Effectiveness**

The 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. Reported savings for the program utilize ex-ante savings for 2010, with deemed savings adjusted from prior year's evaluation and/or other relevant studies.

#### **Program Evaluation**

A process and impact evaluation was completed in 2010 for the Energy FinAnswer program for years 2005-2008. The results of this evaluation are available on PacifiCorp's website at <a href="http://www.pacificorp.com/es/dsm/utah.html">http://www.pacificorp.com/es/dsm/utah.html</a>.

#### Plans for 2011

- 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.
- 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 who receive electric service on an eligible general service rate schedule. The program is designed to help customers improve the efficiency of their new or replacement lighting, HVAC, and other equipment 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 may vary, the FinAnswer Express 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, program advertising and other company outreach efforts, word of mouth, and through referrals between other business customer programs.

The summary program results are provided in the following table:

Table 20

		_				
2010 FinAnswer Express Program Performa	nce					
kWh/Yr Savings 2010 (Gross - At Gen)			39,016,662			
kWh/Yr Savings 2010 (At Site)			35,956,871			
Total Expenditures		\$	5,126,228			
Incentives Paid		\$	3,185,147			
	PTRC		TRC	UCT	RIM	PCT
Program Cost Effectiveness	1.865		1.695	3.656	0.868	3.589
Levelized Cost (\$/kWh)	\$ 0.0571	\$	0.0571	\$ 0.0265		
Lifecycle Revenue Impact (\$/kWh)	\$ 0.00000799		•			
Discounted Participant Payback (Years)	3.08					

Details of 2010 savings by type of measure are provided on the following table:

Table 21

FinAnswer Express kWh Savings by Measure Type					
			kWh/ Yr. Savings	% of kWh	
	# 0	of Projects	(At Site)	Savings	
Building Shell		23	319,563	0.9%	
Compressed Air		1	20,856	0.1%	
HVAC		162	3,387,306	9.4%	
Lighting		732	31,370,303	87.2%	
Motors		97	243,289	0.7%	
Other		3	17,476	0.0%	
Refrigeration		16	598,078	1.7%	
,	Total	1034	35,956,871		

#### **Major Trends and Activities**

In 2010, 1,034 projects were completed compared to 690 in 2009. Program savings were lower than in 2009 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 2010 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 2010, the event was held on February 4<sup>th</sup> in Sandy, Utah at the Southtowne Exposition Center. The event was attended by over 300 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 quarterly 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 2010, the Company added content to the web page specifically for trade allies at <a href="https://www.rockymountainpower.net/alliance">www.rockymountainpower.net/alliance</a>. This page includes service area maps, a link to program information, announcements for upcoming events, resources (Light-Emitting Diode policy), and current and past newsletters.

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 several energy efficiency focused events throughout the state.

#### **Cost Effectiveness**

The program is cost effective from all perspectives except the rate impact test. 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. Reported savings for the program utilize ex-ante savings for 2010, with deemed savings adjusted from prior year's evaluation and/or other relevant studies.

#### **Program Evaluation**

A process and impact evaluation was completed in 2010 for the FinAnswer Express program for years 2005-2008. The result of this evaluation is available on PacifiCorp's website at <a href="http://www.pacificorp.com/es/dsm/utah.html">http://www.pacificorp.com/es/dsm/utah.html</a>.

### Plans for 2011

- Add new measures and measure categories
- Propose changes to comply with code standards and third party specifications
- Monitor actual and forecasted participation and assess the possible introduction of program modifications
- Further develop the trade-ally specific website to provide additional targeted information 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

## **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 do not 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 22

2010 Recommisioning Program Performance	e				
kWh/Yr Savings 2010 (Gross - At Gen)		7,909,514			
kWh/Yr Savings 2010 (At Site)		7,231,291			
Total Expenditures		\$ 986,414			
Incentives Paid		\$ -			
	PTRC	TRC	UCT	RIM	PCT
Program Cost Effectiveness	3.223	2.930	3.486	1.036	15.252
Levelized Cost (\$/kWh)	\$ 0.0358	\$ 0.0358	\$ 0.0301		
Lifecycle Revenue Impact (\$/kWh)	\$ (0.0000073)				
Discounted Participant Payback (Years)	0.40				

#### **Major Trends and Activities**

The Re-Commissioning Program experienced a 27 percent decrease in kWh savings in 2010 compared to 2009. Project participation decreased from 31 to 14 projects. 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.

#### **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. Reported savings for the program utilize ex-ante savings for 2010, with deemed savings adjusted from prior year's evaluation and/or other relevant studies.

#### **Program Evaluation**

A process and impact evaluation was completed in 2010 for the Re-Commissioning program for years 2007-2008. The result of this evaluation is available on PacifiCorp's website at <a href="http://www.pacificorp.com/es/dsm/utah.html">http://www.pacificorp.com/es/dsm/utah.html</a>.

#### Plans for 2011

- 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 ongoing 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 reprocuring 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 funding and 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 Schedule 193 DSM tariff rider charge appearing 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 23

2010 Self Direction Program Performance

2010 Sen Breedon Hogium Ferrorium						
kWh/Yr Savings 2010 (Gross - At Gen)			18,185,520			
kWh/Yr Savings 2010 (At Site)			17,160,393			
Expenditures (Does not include Credits)			\$ 516,907			
Self Direction Credits Paid in 2010			\$ 2,526,837			
Total Program Expenditures			\$ 3,043,744			
		PTRC	TRC	UCT	RIM	PCT
Program Cost Effectiveness		3.180	2.890	3.104	1.056	31.209
Levelized Cost (\$/kWh)	\$	0.0216	\$ 0.0216	\$ 0.0201		
Lifecycle Revenue Impact (\$/kWh)	\$ (	0.00000169)				
Discounted Participant Payback (Years)		0.32				

#### **Major Trends and Activities**

Twenty four completed projects (projects eligible for 80 percent credits) were approved by the Self-Direction Credit Program Administrator in 2010, an 84 percent increase from 2009 with a 93 percent increase of kWh savings at generation. Participation remains strong from customers who have previously participated in Self Direct program. Credit utilization remains steady in 2010. Increased customer awareness combined with customers who have previously participated has resulted in an overall increase in developing new projects.

#### **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. Reported savings for the program utilize ex-ante savings for 2010, with deemed savings adjusted from prior year's evaluation and/or other relevant studies.

## **Program Evaluation**

A process and impact evaluation was recently completed for the Self Direction program for years 2007-2008. The result of this evaluation is available on PacifiCorp's website at <a href="http://www.pacificorp.com/es/dsm/utah.html">http://www.pacificorp.com/es/dsm/utah.html</a>.

#### Plans for 2011

The Company plans to continue program marketing through customer and community managers and by referral between other programs available for business customers, primarily Energy FinAnswer and FinAnswer Express. In addition energy engineers offer their services directly to large customers who may be interested in participating.

Updated program collateral and program manuals are also planned for 2011.

# **Summary of 2010 Total Portfolio Results**

Table 24

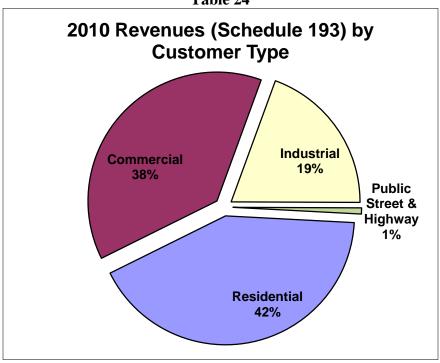
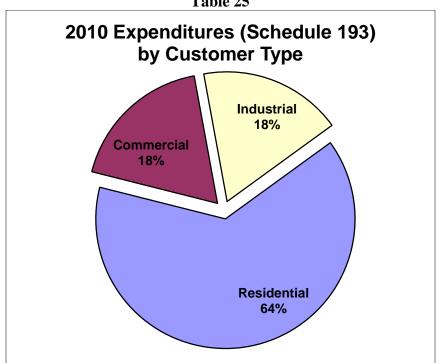
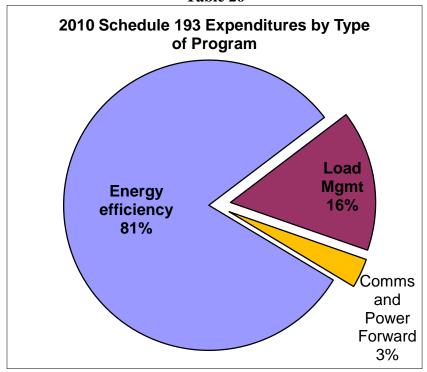


Table 25



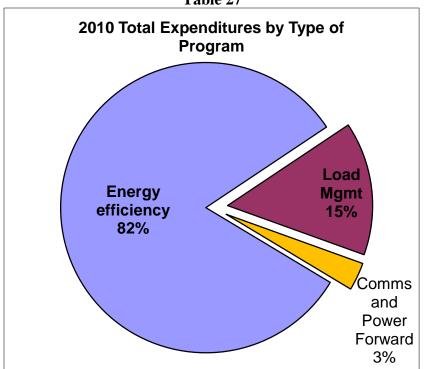
(Note - Table 25 does not include Self Direction Participation Credits but includes Load Management (Cool Keeper for residential and Irrigation Load Control for industrial), Outreach and Communications and Power Forward expenditures as residential costs).

Table 26



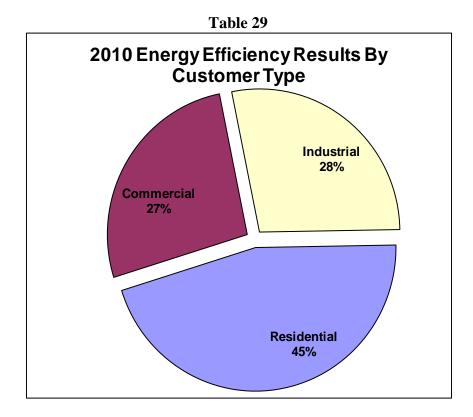
(Note – Table 26 does not include Self Direction Credits)

Table 27



(Note – Table 27 includes Schedule 193 expenditures and Self Direction Credits)

Table 28 2010 Energy Efficiency Expenditures by Customer Type Industrial 19% Commercial 23% Residential 58%



# **Balancing Account Summary**

Demand-side management activities are funded by revenue collected through the DSM tariff rider, which is administered through Schedule 193. Expenditures are charged as incurred. The balancing account is the mechanism used for managing the revenue collected and expenses incurred in the provision of DSM resources. The balancing account activity for 2010 is outlined in the following table:

Table 30<sup>7</sup>

	Acc	umulated Balance as	s of 12/31/2009	\$ 28,379,393		
	Monthly					Accumulated
	Program Costs -		Carrying	Accumulated		Balance Total
	Fixed Assets	Rate Recovery	Charge	Balance	AFUDC Rate	Carrying Costs
January	3,485,418	(5,236,772)	186,796	26,814,835	8.12%	4,451,228
February	2,125,813	(15,519,088)	136,636	13,558,196	8.12%	4,587,864
March	2,855,581	(4,530,592)	86,395	11,969,580	8.12%	4,674,259
April	3,495,607	(4,421,268)	78,150	11,122,069	8.12%	4,752,409
May	3,276,506	(4,506,204)	71,362	9,963,732	8.12%	4,823,771
June	2,833,434	(5,064,297)	60,095	7,792,964	8.12%	4,883,866
July	3,843,360	(6,308,593)	44,556	5,372,287	8.12%	4,928,422
August	4,419,002	(7,149,629)	27,214	2,668,874	8.12%	4,955,636
September	5,243,760	(6,200,231)	14,878	1,727,282	8.12%	4,970,514
October	4,691,280	(5,183,174)	10,061	1,245,449	8.12%	4,980,575
November	4,876,581	(4,553,045)	6,748	1,575,732	8.12%	4,987,323
December	5,736,184	(5,158,262)	12,618	2,166,272	8.12%	4,999,941
2010 totals	46,882,525	(73,831,154)	735,509			
		Change in balanc	ing account in 2010	\$ (26,213,120)		

#### **Column Explanations:**

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

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

<u>Carrying Charge</u>: Monthly carrying charge based on "Accumulated Balance" of the account.

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

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

<sup>7</sup> Amount recorded in February Rate Recovery consists of \$4,669,087.75 DSM tariff rider recovery and \$10,850,000 SMUD offset. Refer to Docket No. 09-035-T08.

<u>Accumulated Balance Total Carrying Costs</u>: Total net carrying charges paid on the account since inception of the balancing account.

At the beginning of 2010, the unfunded balance was approximately \$28.4 million and the average collection rate was 4.6 percent. On December 9, 2010 the company issued a filing to propose a reduction to the Schedule 193 collection rate. At current rates, it was expected that the DSM tariff rider would collect approximately \$70.5 million during the twelve months ended December 2011. The Company proposed through this filing to set Schedule 193 rates at a level that would collect approximately \$57.0 million during the same time period; a reduction of \$13.5 million, or 19.1 percent to Schedule 193. The current DSM tariff rider was approximately 4.6 percent of customer bills; the Company's proposal reduced the collection rate to approximately 3.7 percent of customer bills. On December 21, 2010 in Docket No. 10-035-T14, the Commission approved the Company's request to reduce the DSM tariff rider with an effective date of January 1, 2011.

The unfunded balance at the end of 2010 was \$2.2 million.

## **Cost Effectiveness**

#### Introduction

The cost effectiveness of individual programs operated by the Company for 2010 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 2007 line loss study. Net-to-gross assumptions are consistent with planning estimates and/or program evaluations. The energy savings attributed to each program are shaped according to specific enduse 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.

#### **Key Assumptions for Cost Effectiveness Calculations:**

Cost effectiveness calculations for programs and measures (or measure groups) within each program will be detailed below.

Global assumptions used in all cost effectiveness calculations include:

#### **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	9.845%	2007 MAC Line Loss Study
Commercial	9.379%	2007 MAC Line Loss Study
Industrial	5.726%	2007 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. Please refer to the Cost Effectiveness Appendix 1 to this report for more information on the cost effectiveness tests and the assumptions and inputs.

# **Appendices:**

Appendix 1 – Cost Effectiveness Details