### **Rocky Mountain Power**

### ts not Actual Draft/Sample DSM Annual Report - Utah

Outline of Rocky Mountain Power DSM Annual Report format and content.

sampe for Demonstration Rocky Mountain Power Demand Side Management Team 11/19/2009

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### **Executive Summary (EXAMPLE)**

Rocky Mountain Power works with its customers to reduce the need for supply side resources and infrastructure by reducing energy and peak consumption through cost effective demand side programs, programs that focus on energy efficiency improvements and better management of energy loads during peak load hours. The programs offered by the company are the result of a comprehensive process which includes:

- Identification of the potential availability of the demand-side resources;
- A preliminary evaluation of various demand-side resources as compared to supply side resources;
- Vendor identification and pricing through a demand-side request for proposal and evaluation process;
- Final program development or modifications; and
- Final evaluation of the cost effectiveness of the resources as compared to supply side resource options.

This process is undertaken to ensure demand-side management programs result in: a) acquiring cost effective resources to help meet load growth and system peak requirements; and b) provide tools for customers to lower usage and demand effectively helping lower their electricity costs.

Rocky Mountain Power currently offers nine energy efficiency and two load management programs in Utah with costs associated with these programs recovered through a tariff-rider, Schedule 193. Also included in the costs is Rocky Mountain Power's contribution to the statewide Power Forward campaign.

This report provides details on program activities, expenditures, collections and program cost effectiveness for the performance period from January 1, XXXX through December 31,XXXX. Top-line results are summarized in Table 1 below.

### **20XX Total Portfolio Performance**

Total Revenues	\$ 55,000,000
Self Direction Credits	\$ 7,000,000
Net Revenues	\$ 48,000,000
Expenditures	\$ 50,000,000
First Year MWh Savings (Energy Efficiency)	190,000
MW under Load Control	90.6

	PTRC	TRC	UCT	RIM	РСТ
Cost Effectiveness (Five Tests)	2.100	2.000	2.300	1.500	1.900
Levelized Cost (\$/kWh)	0.0356	0.0356	0.0356		
Lifecycle Revenue Impact (\$/kWh)				0.00007	

The demand side management results for 20XX exceeded the overall potential identified in the Company's 2007 Assessment of Long-Term System-Wide Potential for Demand-Side and Other Supplemental Resources (Potential Study) for achievable savings in a given year, however savings contributions were fairly consistent across the customer sectors and end-use measures to those identified in the Potential Study. Program performance on a total portfolio basis, resource Class basis (i.e. load management and energy efficiency), and individual program basis were cost-effective from the Total Resource Cost, Utility Cost and Participant Cost perspectives. See the Program Cost Effectiveness section (beginning on page XX) in this report for a description of the cost effectiveness methodology, key sensitivities and results for individual programs as well as relevant portfolio views.

The 20XX demand side management acquisitions are forecasted to produce \$\_\_\_ million in Net Benefits over the life of the savings on a Total Resource Cost basis.

### Advisory Group Meetings and Communications:

The company met and/or communicated with Demand Side Management Advisory Group on several occasions during the year. Meeting dates and subject matter are as follows:

March 31, 20XX – emailed copy of Utah DSM Annual report for year 20XX.

June 1, 20XX - Advisory Group meeting

- Historical numbers
- Current DSM RFP
- Tariff rider analysis & adjustment scenarios
- Program changes
- Cost test discussion

September 1, 20XX - email with revised cost effectiveness tests draft white paper and request for comments.

October 1, 20XX - Advisory Group meeting

- Results to date
- Forecast for next year
- Potential program improvements

November 1, 20XX - email draft evaluation of \_\_\_\_\_ program for program years (20XX – 20XX).

### Company Filings with the UPSC:

In addition, the Company made four filings with the Utah Public Service Commission (Commission) for review and approval during XXXX. Filing dates and subject matter are as follows:

March 31, 20XX – Advice Filing #\_\_\_\_\_ RMP Utah DSM Annual report. Summary of RMP Utah DSM activities for 20XX.

June 1, 20XX – Filing # \_\_\_\_\_ Modifications to \_\_\_\_\_ Program. Filed for changes to \_\_\_\_\_ program. Specific modifications include: \_\_\_\_\_, \_\_\_\_, \_\_\_\_. Filing was approved on \_\_\_\_\_.

August 1, 20XX – Filing # \_\_\_\_\_ Change in DSM Tariff Rider rate (Schedule 193). Change Tariff Rider rate to reflect increased \_\_\_\_\_. Filing is being reviewed by the Commission. An order is expected early next year.

November 1, 20XX – Filing # \_\_\_\_\_\_ RMP annual DSM forecast for 20XX+1.

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### **20XX Performance Compared to Forecast**

In 20XX, the company met or exceeded targets for load management and energy efficiency. The Targets are based on Integrated Resource Plan (IRP) requirements and adjusted to reflect additional potential acquisitions available in the market and are consistent with the targets filed with the Commission on November, 20XX for the performance period ending 20XX.

Load Management:

- The capacity realized from Cool Keeper was slightly down from 20XX-1 levels (XXX megawatts in 20XX versus XXX megawatts in 20XX-1). The reduction was due to lower than average summer temperatures, the number of installed switches increased by X % or approximately X,XX new participants.
- Overall load management acquisitions were XXX% of forecast. Expenditures were XX% of the forecast, mostly due to timing differences between expected and actual Cool Keeper program payments.

Energy Efficiency:

• Energy efficiency results exceeded the forecast by XX% with expenditures commensurate with the higher level of acquisition.

Rocky Mountain Power - Utah		2008 Foreca	st		2008 actu	al
Programs	MW	MWh	Costs	MW	MWh	Costs
Cool Keeper	90	101 00 11	\$8,250,000	92.1	141 44 11	\$7,178,848
1	90 10			10.4		
Irrigation Load Control	-		\$375,000			\$761,931
Total load control/management	100		\$8,625,000	102.5		\$7,940,779
Energy FinAnswer		54,500	\$7,825,000		52,470	\$7,754,935
FinAnswer Express		45,200	\$3,250,000		51,874	\$4,924,126
Self-Direction	~	8,250	\$400,000		7,227	\$209,124
Recommissioning		9,250	\$900,000		7,926	\$1,053,381
Central A/C "Cool Cash"	$\cap$	1,600	\$675,000		1,002	\$526,316
Home Energy Savings	$\sim$	13,250	\$4,350,000		43,164	\$7,816,555
Refrig Recycle "SYLR"		24,750	\$3,775,000		25,652	\$2,570,373
Low Income Wx	Ý	475	\$250,000		690	\$127,423
Energy Star New Homes		3,500	\$2,425,000		3,322	\$1,663,649
Total Energy Efficiency	35.0	160,775	\$23,850,000	42.0	193,328	\$26,645,881
Power Forward	20-200		\$50,000	20-200		\$ 50,073
Total Expenditures (tariff rider)			\$32,525,000			\$34,636,733
Self-Direction Credits issued			\$1,883,135			\$1,757,945
all savings at generator						
gross savings						
Capacity savings for energy efficient	cv - calculat	ted based on IRP g	enerated contribution	on factor		

### Table 2 – 20XX Performance Compared to Forecast

### Major Trends and Activities:

Rocky Mountain Power added \_ new programs to the portfolio in 20XX. As these programs ramp up, there has been a slight increase in overall portfolio costs which longer term will be offset with greater program savings once these programs are fully implemented and productive.

The Commercial and Industrial sectors saw \_\_\_\_ increases in savings as a result of the economic rebound and continued interest in efficiency initiatives.

Residential programs saw increases in line with state growth. There were several modifications to programs to reflect changes in the comparison baselines (e.g., lighting code changes, building code changes and changes in deemed measure baselines).

The company completed \_ program evaluations during the course of 20XX. The results of each program evaluation are included in the program section of this report, and a copy of each evaluation has been provided in the appendix section to this report.

### **Cost Effectiveness:**

Consistent with the requirements outlined in UPSC order in Docket #09-035-27, the Company reports cost effectiveness for its DSM programs utilizing 5 Cost Effectiveness Tests;

- 1 PacifiCorp Resource Cost Test (PTRC)
- 2 Total Resource Cost Test (TRC)
- 3 Utility Cost Test (UTC)
- 4 Ratepayer Impact Test (RIM)
- 5 Participant Cost Test (PCT)

The results for each test are provided at several levels:

- 1- Overall Portfolio level, consolidation of all programs
- 2- Market segment level Residential and Non-Residential programs
- 3- Class of resource i.e. Class 1, 2, etc.
- 4- Individual Program level
- 5- Measure or measure group level for select programs

The level analysis is intended to demonstrate sensitivity of the portfolio by specific programs and/or market segments.

The measure level analysis when provided, is intended to demonstrate the sensitivity of a particular program by specific measures or measure groups within the program.

No programs in the portfolio indicated a UCT benefit/cost ratio of less than 1.0. One program exhibited marginal cost effectiveness as it produced a cost/benefit ratio for the UCT test of 1.X, but a TRC of less than 1.0. Analysis of the specific results and remedial actions taken and planned are included in the \_\_\_\_\_ program section.

Overall, the portfolio generated \$\_\_\_ million in Net Benefits (on a TRC basis) and was cost effective across all five Cost Effectiveness Tests at the portfolio, segment and program level, with the exception of the program noted above.

Key inputs and assumptions for each of the cost effectiveness tests, as well as a table of results are included in the cost effectiveness section.

### Plans for Next Year:

The company provided its forecast for 20XX+1 on November 1, 20XX. Overall, RMP expects to increase load management and energy efficiency savings by XX% over 20XX targets.

The Company plans to conduct third party evaluation of X Utah programs during the coming performance period.

X new programs will be introduced during the next year. Y programs will be retired during the year.

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### Load Management Programs and Activity

Rocky Mountain currently offers two load management programs, the Cool Keeper residential and small commercial air conditioner and agricultural irrigation load management programs. Through these programs the company has the ability to reduce system demand during the summer peak load period through a combination of scheduled and dispatchable control of participating customer air conditioners and irrigation pumps. In addition, Rocky Mountain Power participates in the Power Forward program which is a voluntary demand reduction program.

- 1. Cool Keeper
  - a. Program results (Table)
  - b. Program Narrative
    - i. Program description
    - ii. 20XX Performance
    - iii. Major Trends and Activities 20XX
    - iv. Plans for next year and beyond (includes timeline for evaluation)
- 2. Irrigation Load Control
  - a. Program results (Table)
  - b. Program Narrative
    - i. Program description
    - ii. 20XX Performance
    - iii. Major Trends and Activities 20XX
    - iv. Plans for next year and beyond (includes timeline for evaluation)
- 3. Power Forward

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- a. Program results (Table)
- b. Program Narrative
  - i. Program description
  - ii. 20XX Performance
  - iii. Major Trends and Activities 20XX
  - iv. Plans for next year and beyond (includes timeline for evaluation)

### **Residential Energy Efficiency Programs and Activity**

### Home Energy Savings Program:

The Home Energy Saving Program provides a broad framework to deliver incentives for more efficient products and services for Utah residential customers with a new or existing home, multi-family unit or manufactured home. The program is delivered through a third party administrator hired by the company. Schedule 111 and the program web site at <a href="http://www.homeenergysavings.net/utah/home">http://www.homeenergysavings.net/utah/home</a> operate in tandem to inform customers and contractors of the offerings and qualifications for incentives.

Measures eligible for incentives include; washing machines, refrigerators, water heaters, dishwashers, lighting (both compact florescent lamps (CFL)s and fixtures), cooling equipment and services, insulation for ceiling and walls, windows and miscellaneous equipment such as ceiling fans

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

Program results for 20XX are provided in the Table below.

### 20XX Class 2 Energy Efficiency Portfolio Performance

MWh Savings 20XX		190,000
Expenditures		\$ 40,000,000
Incentives Paid	S	\$ 30,000,000

	PTRC	TRC	UCT	RIM	РСТ
Cost Effectiveness (Five Tests)	2.100	2.000	2.300	1.500	1.900
Levelized Cost (\$/kWh)	0.0356	0.0356	0.0356		
Lifecycle Revenue Impact (\$/kWh)				0.00007	
Cample for					

	Unit			
	Measure			
Home Energy Savings Measures	ment	# of Units	Participants	kWh Savings
Ceiling Fans	Units	281	170	30,067
Clothes Washer-Tier One	Units	1,368	1,368	227,772
Clothes Washer-Tier Two	Units	10,047	10,047	1,839,577
Clothes Washer Recycling	Units	245	245	29,400
Dishwasher	Units	3,698	3,698	64,439
Electric Water Heater	Units	12	12	1,088
Evaporative Cooler	Units			AKS
Fixtures	Fixtures	1,511	723	139,012
Refrigerator	Units	3,685	3,685	359,288
Insulation: Attic (sq ft)	Sq Feet	36,165,192	26,467	4,922,011
Insulation: Floor (sq ft)	Sq Feet	1,681,025	1,603	200,393
Insulation: Wall (sq ft)	Sq Feet	966,811	1,152	209,976
Windows	Sq Feet	274,852	1,914	52,550
CAC/HP Tune up	Projects	8	8	488
Room AC Units	Units	20	20	1,830
Room AC Recycling	Units			
Central A/C Equipment	Units	$\sim$		
Duct Sealing + Insulation - Electric	Projects	136	136	54,379
Duct Sealing - Gas	Projects	Y		
Heat Pump Conversion	Units			
Heat Pump Upgrade	Units			
Proper CAC Install	Projects			
Proper CAC Sizing	Projects			
CFLs	Bulbs	1,336,959	133,696	40,892,737
Total	s	40,445,851	184,944	49,025,007

### **20XX Home Energy Savings Measure Performance**

The program was cost effective on all 5 cost effectiveness tests. See Table \_ in the Cost Effectiveness Section for the more detailed inputs and results of the 5 tests.

Cost Effectiveness tests were also performed at the measure level. See Table \_ in the Cost effectiveness (Section \_) for all five Cost Effectiveness tests at the measure level for the HES program for 20XX.

### Major Trends and Activities:

The Home Energy Savings program was very active during the year due primarily to activity in the insulation area. During 20XX, more than XX million square feet of attic insulation was installed as the result of combined incentives between the HES program and complimentary incentive programs offered by Questar Gas. As a result of the increased insulation activity, Rocky Mountain Power incurred significant additional costs for the program, causing a significant deficit in the DSM balancing account for Schedule 193, and subsequent filings for both a reduction in the insulation incentive levels and an increase in the tariff rider collection rate. The insulation issue was discussed at \_ technical conferences with the PSC as well as with the DSM Advisory group at \_ meetings. The changes to the incentive levels have slowed the level of insulation activity and the balancing account is on a path to normal levels.

Several program changes were recommended and approved during 20XX, including:

- Refine the incentive level for insulation measures (Reviewed with Advisory group on \_\_\_\_\_, changes filed with PSC on \_\_\_\_\_, Order issued on \_\_\_\_\_, New incentive levels in effect \_\_\_\_\_).
- Modified program tariff to allow changes in incentives to go into effect more quickly. (Reviewed with Advisory group on \_\_\_\_\_, changes filed with PSC on \_\_\_\_\_, Order issued on \_\_\_\_\_, new incentive levels in effect \_\_\_\_\_).
- Modified \_\_\_\_\_ measure to reflect new code standards in \_\_\_\_\_. (Reviewed with Advisory group on \_\_\_\_\_, changes filed with PSC on \_\_\_\_\_, Order issued on \_\_\_\_\_, new incentive levels in effect \_\_\_\_\_).

Other notable activities in the HES program during 20XX included:

- XX% increase in \_\_\_\_\_ measure activity, as a result of \_\_\_\_\_.
- Improvements in CFL distribution and savings of \_\_\_%.
- Slightly lower activity with \_\_\_\_\_\_

The measures that produced marginal cost effectiveness ratios are currently being evaluated and will be reviewed with the DSM Advisory Group to determine appropriate remedial actions.

### **Plans for Next Year:**

The Home Energy Savings program will be evaluated for program years 2006 – 2008. The Cadmus Group has been contracted to complete impact and process evaluations of the HES program in Utah. A draft report is expected to be available by \_\_\_\_\_\_ of 2010. The evaluation will include updates of key program cost effectiveness inputs including realization rates, free-ridership and spillover and net to gross ratios.

The Company will continue to closely monitor measure level activity to ensure that costs associated with HES remain at a reasonable level.

- 2. See Ya Later Refrigerator
  - a. Program results (Table)
  - b. Program Narrative
    - i. Program description
    - ii. 20XX Performance
    - iii. Major Trends and Activities 20XX
    - iv. Plans for next year and beyond (includes timeline for evaluation)
- 3. Cool Cash
  - a. Program results (Table)
  - b. Program Narrative
    - i. Program description
    - ii. 20XX Performance
    - iii. Major Trends and Activities 20XX
    - iv. Plans for next year and beyond (includes timeline for evaluation)
- 4. Low Income Weatherization
  - a. Program results (Table)
  - b. Program Narrative
    - i. Program description
    - ii. 20XX Performance
    - iii. Major Trends and Activities 20XX
    - iv. Plans for next year and beyond (includes timeline for evaluation)
- 5. Energy Star New Homes
  - a. Program results (Table)
  - b. Program Narrative
    - i. Program description
    - ii. 20XX Performance
    - iii. Major Trends and Activities 20XX
    - iv. Plans for next year and beyond (includes timeline for evaluation)

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### Non- Residential Energy Efficiency Programs and Activity

- 1. FinAnswer Express
  - a. Program results (Table)
  - b. Program Narrative
    - i. Program description
    - ii. 20XX Performance
    - iii. Major Trends and Activities 20XX
    - iv. Plans for next year and beyond (includes timeline for evaluation)
- 2. Energy FinAnswer
  - a. Program results (Table)
  - b. Program Narrative
    - i. Program description
    - ii. 20XX Performance
    - iii. Major Trends and Activities 20XX
    - iv. Plans for next year and beyond (includes timeline for evaluation)
- 3. Recommissioning
  - a. Program results (Table)
  - b. Program Narrative
    - i. Program description
    - ii. 20XX Performance
    - iii. Major Trends and Activities 20XX
    - iv. Plans for next year and beyond (includes timeline for evaluation)
- 4. Self-Direction
  - a. Program results (Table)
  - b. Program Narrative
    - i. Program description
    - ii. 20XX Performance
    - iii. Major Trends and Activities 20XX
    - iv. Plans for next year and beyond (includes timeline for evaluation)

### **Outreach and Communications Program and Activity**

- 1. Outreach and Communications Program 20XX
  - a. Program results (Table)
  - b. Program Narrative
    - i. Program description
    - ii. 20XX Performance
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## e the second sec **Overall Revenue, Expenditures and Results:**

### **Tariff Rider Balancing Account Summary**

Demand Side Management activities are funded through Schedule 193, DSM cost adjustment rider. Expenses for DSM expenditures are charged as incurred and collected from the tariff rider. The DSM balancing account is the mechanism used for managing the revenue collected and expenses incurred in the provision of Demand Side Management programs. The DSM balancing account activity for 20XX is outlined in the table below.

### UTAH DSM <u>PROGRAM COSTS - CALCULATION OF CARRYING CHARGES</u>

					F	ERC Reported	
	Monthly Program					C Y	Accumulated
	Costs - Fixed	Delayed			Accumulated	2	Balance Total
	Assets	Amortization	Rate Recovery	Carrying Charge	Balance	AFUDC Rate	Carrying Costs
				<u> </u>			<u> </u>
					0.0		
January	1,290,925.44	-	(2,043,885.53)	(8,507.00)	(1,626,853.96)	8.22%	2,944,528.00
February	1,323,511.17	-	(1,902,806.96)	(13,128.00)	(2,219,277.75)	8.22%	2,931,400.00
March	1,304,104.70	-	(1,750,767.39)	(16,732.00)	(2,682,672.44)	8.22%	2,914,668.00
April	1,524,628.57	-	(1,690,452.56)	(18,944.00)	(2,867,440.43)	8.22%	2,895,724.00
May	2,863,114.68	-	(1,851,256.69)	(16,176.00)	(1,871,758.44)	8.22%	2,879,548.00
June	1,889,930.71	-	(2,271,287.67)	(14,128.00)	(2,267,243.40)	8.22%	2,865,420.00
July	2,868,483.07	-	(2,824,475.09)	(15,380.00)	(2,238,615.42)	8.22%	2,850,040.00
August	2,062,158.82	-	(3,035,975.34)	(18,670.00)	(3,231,101.94)	8.22%	2,831,370.00
September	1,245,555.90	-	(2,722,935.71)	(27,193.00)	(4,735,674.75)	8.22%	2,804,177.00
October	1,634,230.66	-	(2,006,344.44)	(33,714.00)	(5,141,502.53)	8.22%	2,770,463.00
November	6,018,874.85	-	(1,821,446.47)	(20,843.00)	(964,917.15)	8.22%	2,749,620.00
December	1,574,425.69	-	(2,064,313.99)	(8,288.00)	(1,463,093.45)	8.22%	2,741,332.00
2007 totals	\$ 25,599,944.26	\$-	\$ (25,985,947.84)	\$ (211,703.00)			
January	2,245,176.88		(2,126,387.62)	(9,405.00)	(1,353,709.19)	8.04%	2,731,927.00
February	1,797,456.18	, K	(1,966,856.61)	(9,637.00)	(1,532,746.62)	8.04%	2,722,290.00
March	2,070,729.58	C-	(1,857,623.77)	(9,555.00)	(1,329,195.81)	8.04%	2,712,735.00
April	1,683,102.70		(1,776,303.24)	(9,218.00)	(1,431,614.35)	8.04%	2,703,517.00
May	1,804,564.14		(1,841,418.55)	(9,715.00)	(1,478,183.76)	8.04%	2,693,802.00
June	1,851,448.10	$\sim$ -	(2,130,467.77)	(10,839.00)	(1,768,042.43)	8.04%	2,682,963.00
July	4,776,663.86	Y -	(2,730,002.28)	(4,990.00)	273,629.15	8.04%	2,677,973.00
August	3,948,216.76	-	(2,970,419.43)	5,109.00	1,256,535.48	8.04%	2,683,082.00
September	2,247,106.45	-	(2,609,698.76)	7,204.00	901,147.17	8.04%	2,690,286.00
October	3,983,242.98	-	(2,151,638.46)	12,174.00	2,744,925.69	8.04%	2,702,460.00
November	3,386,986.30	-	(1,890,963.17)	23,403.00	4,264,351.82	8.04%	2,725,863.00
December	4,842,039.43	-	(2,128,593.50)	37,661.00	7,015,458.75	8.04%	2,763,524.00
2008 totals	\$ 34,636,733.36	\$-	\$ (26,180,373.16)	\$ 22,192.00			

### **Column Explanations:**

<u>Monthly Program Costs – Fixed Assets</u>: Monthly expenditures for all DSM program activities <u>Rate Recovery</u>: Revenue collected through Schedule 193, DSM cost adjustment rider. <u>Carrying Charge</u>: Monthly "interest" 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 "Monthly Program Costs" for a given month, then the Accumulated Balance" will be increased by the net amount.

<u>AFUDC Rate</u>: The "interest" rate applied to the balancing account balance. AFUDC means Allowance for Funds Used During Construction.

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

### **Cost Effectiveness:**

### Introduction

The cost effectiveness of individual programs operated by the Company for 20XX 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 (primarily residential programs) were the same as those used in the planning estimates.

Energy savings shown in this report are gross savings at site in the individual program tables (Tables through ) and at generation in the summary tables (Tables and ). For the purpose of the cost effectiveness analysis and summary tables line losses are calculated based on the Company's 20XX line loss study and net-to-gross assumptions are consistent with planning estimates. The energy savings attributed to each program are shaped according to specific end-use savings (the hourly calculation of when energy is used for the various end-use measures from which the savings are derived). Program costs and the value of the energy savings are then compared on a present value basis with the Company's 20XX 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 it's assumed there are no energy savings associated with the load management programs, only a shift of when the energy is used away from the peak load hours. The five California Standard Practice Manual cost effectiveness tests were utilized in the cost benefit analysis for both energy efficiency and load management programs. Tables \_\_ through \_\_ below provide the cost benefit test results for the 20XX program.

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### Key Assumptions for Cost Effectiveness Calculations:

Cost Effectiveness calculations for Programs and Measures (or measure groups) within each program will be detailed on the following tables.

Global Assumptions used in all cost effectiveness calculations include:

### Key Assumptions for All Cost Effectiveness Studies:

Assumption	<u>Value</u>		Source	
Discount Rate		7.40%	20XX IRP - Company WACC after Tax	
Line Losses (Utah Specific)				
Residentia	I	9.72%	20XX Rocky Mountain Power Line Loss Study	
Commercia	I	9.35%	20XX Rocky Mountain Power Line Loss Study	
Industria	I	6.33%	20XX Rocky Mountain Power Line Loss Study	

Key elements that go into the cost effectiveness calculation for each program and each measure/measure group include:

Units Savings/unit Incentive/Unit Measure Cost/unit

KW/kWh Savings Gross Administrative Expenses Incentives Paid Utility Administration Evaluation Expense Total Utility Costs Gross Customer Costs Net To Gross Ratio Measure Life

**IRP Decrement Value** 

The following Tables provide details for the key assumptions and inputs for cost effectiveness calculations for each program. As a proxy for sensitivity analysis for each measure/measure group, readers are invited to review the "Net Benefits" column in each program and measure table. The level of net benefits is another key indicator of the sensitivity of the cost-effectiveness results in relation to individual programs and the overall portfolio.

### **Portfolio Cost Effectiveness**

	Costs	Benefits	Net Benefits	Benefit/Cost Ratio
Total Resource Cost Test (PTRC) + Conservation Adder	\$81,651,503	\$170,312,403	\$88,660,899	2.086
Total Resource Cost Test (TRC) No Adder	\$81,651,503	\$162,317,999	\$80,666,495	1.988
Utility Cost Test (UCT)	\$78,833,583	\$162,317,999	\$83,484,416	2.059
Rate Impact Test (RIM)	\$87,742,736	\$162,317,999	\$74,575,263	1.850
Participant Cost Test (PCT)	\$16,029,141	\$117,777,097	\$101,747,956	7.348
<ol> <li>Program Level Cost Effectiver a. Program Specific Assu</li> <li>b. Five Tests (20XX perfoce)</li> <li>c. Levelized Costs</li> </ol>	mptions	A	Result	

Resur

### Table XX - Overall Demand Side Management Portfolio - Cost Effectiveness

### 1. Program Level Cost Effectiveness

- a. Program Specific Assumptions
- b. Five Tests (20XX performance)
- c. Levelized Costs

# Samperon Demonstration Only

### Example – Home Energy Savings Program (example only – Results not representative)

Home Energy Savings			
Program	Value	Source	
Inputs calculated on a weighted avera	age basis		
# of Units	19,000	Actual Annual Results	
Administrative Expense (if material)	\$ 20,000	Actual Annual Results	
Program Measure Costs	\$ 5,000,000	Actual Annual Results	
Program Incentive Amounts	\$ 4,000,000	Actual Annual Results	
Avg Measure Life	13.6	5 Calculated	
Gross Annual kWh Savings	49,025,000	Actual Results	
Net To Gross Ratio	80%	6 Weighted Average	
IRP Decrement Load Shape Used	Weighted	Measure Specific	

### **Cost Effectiveness Inputs and Test Results**

	Levelized \$/kWh	Costs	Benefits	Net Benefits	Benefit/ Cost Ratio
Total Resource Cost Test (PTRC) + Conservation Adder	0.0536	\$11,475,017	\$18,418,810	\$6,943,793	1.60
Total Resource Cost Test (TRC) No Adder	0.0536	\$11,475,017	\$16,744,373	\$5,269,356	1.45
Utility Cost Test (UCT)	0.0341	\$7,298,370	\$16,744,373	\$9,446,003	2.29
Rate Impact Test (RIM)		\$9,909,575	\$16,744,373	\$6,834,798	1.6
Participant Cost Test (PCT)		\$4,176,646	\$25,119,013	\$20,942,366	6.01
Lifecycle Revenue Impacts (\$/kWh)				(\$0.000284)	

### Program Specific, Measure-Level Cost Effectiveness Details:

Measure-Level cost effectiveness is presented on a per unit basis. The tables also include the number of units so that a den. measure's overall impact to the program can be understood, used to demonstrate the sensitivity of the program to the measure.

Measures Valu	Je Source	Cost Effectiveness Inputs and Test Results							
		•							
Ceiling Fans									
# of Units	19,000 Actual Annual Results								
			Levelized				Benefit/		
Administrative Expense (if material) \$	20,000 Actual Annual Results		\$/kWh	Costs	Benefits	Net Benefits	Cost Rati		
		Total Resource Cost Test (TRC) + Conservation	0.0250	\$0.27	\$0.32	\$0.05	1.18		
Measure Cost (incremental) \$	50.00 Energy Star Database	Adder							
		Total Resource Cost Test (TRC) No Adder	0.0250	\$0.27	\$0.29	\$0.02	1.0		
Incentive Amount/unit \$	25.00 Tariff - 2009								
Measure Life (Years)	15 Energy Star Database	Utility Cost Test (UCT)	0.0250	\$0.18	\$0.29	\$0.11	1.60		
Annual kWh Savings/Unit	107 Energy Star Database	Utah Rate Impact Test (URIM)		\$0.19	\$0.29	\$0.10	1.53		
Net To Gross Ratio	80% Planning Assumption	Participant Cost Test (PCT)		\$0.09	\$0.20	\$0.11	2.17		
IRP Decrement Load Shape Used	East Side Residential Whole House Load Shape	Lifecycle Revenue Impacts (\$/kWh)				(\$0.0000284)			
Clothes Washer-Tier One									
# of Units	19,000 Actual Annual Results								
	15,000 Actual Almual Acsults								
			Levelized				Benefit		
Administrative Expense (if material) \$	20.000 Actual Annual Results		\$/kWh	Costs	Benefits	Net Benefits	Cost Rati		
······································		Total Resource Cost Test (TRC) + Conservation	0.0250	\$0.27	\$0.32	\$0.05	1.18		
		Adder							
Measure Cost (incremental) \$	150.00 RTF Estimate								
		Total Resource Cost Test (TRC) No Adder	0.0250	\$0.27	\$0.29	\$0.02	1.07		
Incentive Amount/unit \$	50.00 Tariff - 2009								
Measure Life (Years)	14 Regional technical Forum (RTF)	Utility Cost Test (UCT)	0.0250	\$0.18	\$0.29	\$0.11	1.60		
Annual kWh Savings/Unit	166 Regional technical Forum (RTF)	Utah Rate Impact Test (URIM)		\$0.19	\$0.29	\$0.10	1.53		
Net To Gross Ratio	80% Planning Assumption	Participant Cost Test (PCT)		\$0.09	\$0.20	\$0.11	2.17		
IRP Decrement Load Shape Used	East Side Residential Whole House Load Shape	Lifecycle Revenue Impacts (\$/kWh)				(\$0.0000284)			
Clothes Washer-Tier Two # of Units	19,000 Actual Annual Results								
	-,								
			Levelized				Benefit/		
Administrative Expense (if material) \$	20,000 Actual Annual Results		\$/kWh	Costs	Benefits	Net Benefits	Cost Rati		
		Total Resource Cost Test (TRC) + Conservation	0.0250	\$0.27	\$0.32	\$0.05	1.18		
		Adder							
Measure Cost (incremental) \$	300.00 RTF Estimate								
		Total Resource Cost Test (TRC) No Adder	0.0250	\$0.27	\$0.29	\$0.02	1.0		
Incentive Amount/unit \$	100.00 Tariff - 2009								
Measure Life (Years)	14 Regional technical Forum (RTF)	Utility Cost Test (UCT)	0.0250	\$0.18	\$0.29	\$0.11	1.60		
Annual kWh Savings/Unit	183 Regional technical Forum (RTF)	Utah Rate Impact Test (URIM)		\$0.19	\$0.29	\$0.10	1.5		
Net To Gross Ratio	80% Planning Assumption	Participant Cost Test (PCT)	┝───┼	\$0.09	\$0.20	\$0.10	2.1		
IRP Decrement Load Shape Used	East Side Residential Whole House Load Shape	Lifecycle Revenue Impacts (\$/kWh)	╞───┼	\$U.U7	φ <b>0.</b> 20	(\$0.000284)	2.1		
	Last side nesidential WIIDLE FIDUSE LUAU SIIdDE	Lines fere ice rende impliets (w.k.iii)				(40.0000204)			

Measures	Value	Source	Cost Effectiveness Inputs ar	nd Test R	esults			
Clothes Washer Recycling								
# of Units	19,00	0 Actual Annual Results						
				Levelized				Benefit
Administrative Expense (if material)	\$ 20,00	0 Actual Annual Results		\$/kWh	Costs	Benefits	Net Benefits	Cost Ra
, , , , , , , , , ,			Total Resource Cost Test (TRC) + Conservation	0.0250	\$0.27	\$0.32	\$0.05	1.
Measure Cost (incremental)	\$ 50.0	0 D&R International	Adder					
			Total Resource Cost Test (TRC) No Adder	0.0250	\$0.27	\$0.29	\$0.02	1.
Incentive Amount/unit	\$ 25.0	0 Tariff - 2009						
Measure Life (Years)		15 D&R International	Utility Cost Test (UCT)	0.0250	\$0.18	\$0.29	\$0.11	1.
Annual kWh Savings/Unit	1	20 D&R International	Utah Rate Impact Test (URIM)		\$0.19	\$0.29	\$0.10	1.
Net To Gross Ratio	80	0% Planning Assumption	Participant Cost Test (PCT)		\$0.09	\$0.20	\$0.11	2.
IRP Decrement Load Shape Used		East Side Residential Whole House Load Shape	Lifecycle Revenue Impacts (\$/kWh)				(\$0.0000284)	
				Levelized		D. C	N + D - C	Benef
Administrative Expense (if material)	\$ 20,00	0 Actual Annual Results		\$/kWh	Costs	Benefits	Net Benefits	Cost Ra
, , , , , , , , , ,			Total Resource Cost Test (TRC) + Conservation	0.0250	\$0.27	\$0.32	\$0.05	1.
Measure Cost (incremental)	\$ 31.0	0 Energy Star Database	Adder					
,	,		Total Resource Cost Test (TRC) No Adder	0.0250	\$0.27	\$0.29	\$0.02	1.
Incentive Amount/unit	\$ 20.0	0 Tariff - 2009						
Measure Life (Years)		9 Energy Star Database	Utility Cost Test (UCT)	0.0250	\$0.18	\$0.29	\$0.11	1.
Annual kWh Savings/Unit		20 Energy Star Database	Utah Rate Impact Test (URIM)	0.02200	\$0.19	\$0.29	\$0.10	1.
Net To Gross Ratio		% Planning Assumption	Participant Cost Test (PCT)		\$0.09	\$0.20	\$0.11	2.
IRP Decrement Load Shape Used		East Side Residential Whole House Load Shape	Lifecycle Revenue Impacts (\$/kWh)				(\$0.0000284)	
Electric Water Heater								
# of Units	19,00	0 Actual Annual Results						
				Levelized				Benefi
Administrative Expense (if material)	\$ 20,00	0 Actual Annual Results		\$/kWh	Costs	Benefits	Net Benefits	Cost Ra
			Total Resource Cost Test (TRC) + Conservation	0.0250	\$0.27	\$0.32	\$0.05	1.
Measure Cost (incremental)	\$ 60.0	0 PECI - 2009	Adder					
,	·	20 T. : : (f. 2000	Total Resource Cost Test (TRC) No Adder	0.0250	\$0.27	\$0.29	\$0.02	1.
Incentive Amount/unit		0 Tariff - 2009		0.0250	<b>*0</b> 10		¢0.11	
Measure Life (Years)			Utility Cost Test (UCT)	0.0250	\$0.18	\$0.29	\$0.11	1
Annual kWh Savings/Unit		90 PECI, RTF	Utah Rate Impact Test (URIM)	┞───┤	\$0.19	\$0.29	\$0.10	1
Net To Gross Ratio	80	0% Planning Assumption	Participant Cost Test (PCT) Lifecycle Revenue Impacts (\$/kWh)		\$0.09	\$0.20	\$0.11 (\$0.0000284)	2
IRP Decrement Load Shape Used		East Side Residential Whole House Load Shape						

Measures Val	ue Source	Cost Effectiveness Inputs and Test Results							
Fixtures									
# of Units	19,000 Actual Annual Results								
			Levelized				Benefit/		
Administrative Expense (if material) \$	20,000 Actual Annual Results		\$/kWh	Costs	Benefits	Net Benefits	Cost Rati		
		Total Resource Cost Test (TRC) + Conservation	0.0250	\$0.27	\$0.32	\$0.05	1.1		
Measure Cost (incremental) \$	50.00 Energy Star Database	Adder							
		Total Resource Cost Test (TRC) No Adder	0.0250	\$0.27	\$0.29	\$0.02	1.0		
Incentive Amount/unit \$	25.00 Tariff - 2009								
Measure Life (Years)	15 Energy Star Database	Utility Cost Test (UCT)	0.0250	\$0.18	\$0.29	\$0.11	1.6		
Annual kWh Savings/Unit	92 Energy Star Database	Utah Rate Impact Test (URIM)		\$0.19	\$0.29	\$0.10	1.53		
Net To Gross Ratio	80% Planning Assumption	Participant Cost Test (PCT)		\$0.09	\$0.20	\$0.11	2.17		
IRP Decrement Load Shape Used	East Side Residential Whole House Load Shape	Lifecycle Revenue Impacts (\$/kWh)				(\$0.0000284)			
			Levelized				Benefit		
# of Units	19,000 Actual Annual Results								
			Levelized				Benefit		
Administrative Expense (if material) \$	20,000 Actual Annual Results		\$/kWh	Costs	Benefits	Net Benefits	Cost Rati		
		Total Resource Cost Test (TRC) + Conservation	0.0250	\$0.27	\$0.32	\$0.05	1.1		
Measure Cost (incremental) \$	50.00 Energy Star Database	Adder							
		Total Resource Cost Test (TRC) No Adder	0.0250	\$0.27	\$0.29	\$0.02	1.0		
Incentive Amount/unit \$	30.00 Tariff - 2009								
Measure Life (Years)	19 Energy Star Database	Utility Cost Test (UCT)	0.0250	\$0.18	\$0.29	\$0.11	1.6		
Annual kWh Savings/Unit	98 Energy Star Database	Utah Rate Impact Test (URIM)		\$0.19	\$0.29	\$0.10	1.5		
Net To Gross Ratio	80% Planning Assumption	Participant Cost Test (PCT)		\$0.09	\$0.20	\$0.11	2.1		
IRP Decrement Load Shape Used	East Side Residential Whole House Load Shape	Lifecycle Revenue Impacts (\$/kWh)				(\$0.0000284)			
Insulation: Attic (sq ft) # of Units	19.000 Actual Annual Results								
# 01 01113	19,000 Actual Annual Results								
			Levelized				Benefit		
	20,000 Actual Annual Results		\$/kWh	Costs	Benefits	Net Benefits	Cost Rat		
Administrative Expense (if material) \$		Total Resource Cost Test (TRC) + Conservation	0.0250	\$0.27	\$0.32	\$0.05	1.1		
Administrative Expense (if material) \$									
	1.50 Analysis of past participation	Adder							
Administrative Expense (if material) \$ Measure Cost (incremental) \$	1.50 Analysis of past participation	Adder Total Resource Cost Test (TRC) No Adder	0.0250	\$0.27	\$0.29	\$0.02	1.0		
	1.50 Analysis of past participation 0.40 Tariff - 2009		0.0250	\$0.27	\$0.29	\$0.02	1.0		
Measure Cost (incremental) \$			0.0250	\$0.27 \$0.18	\$0.29 \$0.29	\$0.02 \$0.11			
Measure Cost (incremental) \$ Incentive Amount/unit \$	0.40 Tariff - 2009	Total Resource Cost Test (TRC) No Adder					1.0 1.6 1.5		
Measure Cost (incremental) \$ Incentive Amount/unit \$ Measure Life (Years)	0.40 Tariff - 2009 45 Regional technical Forum (RTF)	Total Resource Cost Test (TRC) No Adder Utility Cost Test (UCT)		\$0.18	\$0.29	\$0.11	1.6		

Veasures	Value	Source	Cost Effectiveness Inputs and Test Results							
nsulation: Floor (sq ft)										
# of Units	19,000	Actual Annual Results								
				Levelized				Benefit		
Administrative Expense (if material)	\$ 20,000	Actual Annual Results		\$/kWh	Costs	Benefits	Net Benefits	Cost Rat		
			Total Resource Cost Test (TRC) + Conservation	0.0250	\$0.27	\$0.32	\$0.05	1.1		
Measure Cost (incremental)	\$ 2.50	PECI - 2009	Adder							
			Total Resource Cost Test (TRC) No Adder	0.0250	\$0.27	\$0.29	\$0.02	1.0		
Incentive Amount/unit	\$ 0.70	Tariff - 2009								
Measure Life (Years)	45	PECI, RTF	Utility Cost Test (UCT)	0.0250	\$0.18	\$0.29	\$0.11	1.6		
Annual kWh Savings/Unit	0.119	PECI, RTF	Utah Rate Impact Test (URIM)		\$0.19	\$0.29	\$0.10	1.5		
Net To Gross Ratio	80%	Planning Assumption	Participant Cost Test (PCT)		\$0.09	\$0.20	\$0.11	2.1		
IRP Decrement Load Shape Used		East Side Residential Whole House Load Shape	Lifecycle Revenue Impacts (\$/kWh)				(\$0.0000284)			
				Levelized			NUD	Benefi		
# of Units	19,000	Actual Annual Results								
				Levelized				Benefi		
Administrative Expense (if material)	\$ 20,000	Actual Annual Results		\$/kWh	Costs	Benefits	Net Benefits	Cost Ra		
			Total Resource Cost Test (TRC) + Conservation	0.0250	\$0.27	\$0.32	\$0.05	1.1		
Measure Cost (incremental)	\$ 2.00	Analysis of past participation	Adder							
Measure Cost (incremental)	Ç 2.00	Analysis of past participation	Total Resource Cost Test (TRC) No Adder	0.0250	\$0.27	\$0.29	\$0.02	1.0		
Incentive Amount/unit	\$ 0.70	Tariff - 2009			\$0127	\$012 <i>)</i>	¢0.02			
Measure Life (Years)		Regional Technical Forum (RTF)	Utility Cost Test (UCT)	0.0250	\$0.18	\$0.29	\$0.11	1.6		
Annual kWh Savings/Unit		Regional Technical Forum (RTF)	Utah Rate Impact Test (URIM)		\$0.19	\$0.29	\$0.10	1.5		
Net To Gross Ratio		Planning Assumption	Participant Cost Test (PCT)		\$0.09	\$0.20	\$0.11	2.1		
IRP Decrement Load Shape Used		East Side Residential Whole House Load Shape	Lifecycle Revenue Impacts (\$/kWh)				(\$0.0000284)			
		·····								
Vindows (Sq Ft)										
# of Units	19,000	Actual Annual Results								
								~ ~		
	¢ 20.000			Levelized \$/kWh	Costs	Benefits	Net Benefits	Benefit Cost Rat		
Administrative Expense (if material)	\$ 20,000	Actual Annual Results	Tatal Dessures Cast Tast (TDC) - Concernation		\$0.70			2.0		
	<b>A A FA</b>		Total Resource Cost Test (TRC) + Conservation Adder	0.0250	\$0.70	\$1.81	\$1.12	Ζ.		
Measure Cost (incremental)	\$ 3.50	Analysis of Third Party Data		0.0250	\$0.70	A1 / F	\$0.0F			
	ć 150	Tariff 2000	Total Resource Cost Test (TRC) No Adder	0.0250	\$0.70	\$1.65	\$0.95	2		
Incentive Amount/unit		Tariff - 2009	Utility Cost Test (UCT)	0.0250	\$0.81	\$1.65	\$0.84	2.		
Measure Life (Years)		Regional Technical Forum (RTF)	Utah Rate Impact Test (URIM)	0.0250	\$0.81 \$0.86	\$1.65	\$0.84 \$0.79			
Annual kWh Savings/Unit	182	Regional Technical Forum (RTF)						1.9		
Net To Gross Ratio	000/	Planning Assumption	Participant Cost Test (PCT)		(\$0.12)	\$1.11	\$1.22			

Measures Val	ue Source	Cost Effectiveness Inputs and Test Results							
		•							
CAC/HP Tune up									
# of Units	19,000 Actual Annual Results					r			
			Levelized				Benefit/		
Administrative Expense (if material) \$	20,000 Actual Annual Results		\$/kWh	Costs	Benefits	Net Benefits	Cost Rati		
Administrative Expense (ir material) 3		Total Resource Cost Test (TRC) + Conservation	0.0250	\$0.27	\$0.32	\$0.05	1.1		
Measure Cost (incremental) \$	100.00 PECI - 2009	Adder		\$0.L7	\$010L	¢0.00			
measure Cost (incremental) 5	100.00 PECI-2009	Total Resource Cost Test (TRC) No Adder	0.0250	\$0.27	\$0.29	\$0.02	1.0		
Incentive Amount/unit \$	50.00 Tariff - 2009	Total Resource Cost Test (TRC) No Adden	0.0250	\$U.27	φ <b>0.2</b> 7	\$0.0z	1.0		
Measure Life (Years)	5 PECI, RTF	Utility Cost Test (UCT)	0.0250	\$0.18	\$0.29	\$0.11	1.6		
Annual kWh Savings/Unit	61 PECI, RTF	Utah Rate Impact Test (URIM)		\$0.19	\$0.29	\$0.10	1.53		
Net To Gross Ratio	80% Planning Assumption	Participant Cost Test (PCT)		\$0.09	\$0.20	\$0.11	2.1		
IRP Decrement Load Shape Used	East Side Residential Whole House Load Shape	Lifecycle Revenue Impacts (\$/kWh)				(\$0.0000284)			
Room AC Units # of Units	19,000 Actual Annual Results								
# 01 01113	19,000 Actual Allitual Results								
			Levelized				Benefit		
Administrative Expense (if material) \$	20,000 Actual Annual Results		\$/kWh	Costs	Benefits	Net Benefits	Cost Rati		
		Total Resource Cost Test (TRC) + Conservation	0.0250	\$0.27	\$0.32	\$0.05	1.1		
Measure Cost (incremental) \$	50.00 Energy Star Database	Adder							
		Total Resource Cost Test (TRC) No Adder	0.0250	\$0.27	\$0.29	\$0.02	1.0		
Incentive Amount/unit \$	25.00 Tariff - 2009								
Measure Life (Years)	10 Energy Star Database	Utility Cost Test (UCT)	0.0250	\$0.18	\$0.29	\$0.11	1.6		
Annual kWh Savings/Unit	92 Energy Star Database	Utah Rate Impact Test (URIM)		\$0.19	\$0.29	\$0.10	1.5		
Net To Gross Ratio	80% Planning Assumption	Participant Cost Test (PCT)		\$0.09	\$0.20	\$0.11	2.1		
IRP Decrement Load Shape Used	East Side Residential Whole House Load Shape	Lifecycle Revenue Impacts (\$/kWh)				(\$0.0000284)			
Duct Sealing + Insulation - Electric									
# of Units	19,000 Actual Annual Results								
			Levelized				Benefit		
Administrative Expense (if material) \$	20,000 Actual Annual Results		\$/kWh	Costs	Benefits	Net Benefits	Cost Rat		
		Total Resource Cost Test (TRC) + Conservation	0.0250	\$0.27	\$0.32	\$0.05	1.1		
Measure Cost (incremental) \$	250.00 PECI - participation data	Adder							
		Total Resource Cost Test (TRC) No Adder	0.0250	\$0.27	\$0.29	\$0.02	1.0		
Incentive Amount/unit \$	75.00 Tariff - 2009								
	15 Regional Technical Forum (RTF)	Utility Cost Test (UCT)	0.0250	\$0.18	\$0.29	\$0.11	1.6		
Measure Life (Years)		Utah Rate Impact Test (URIM)	I T	\$0.19	\$0.29	\$0.10	1.5		
Measure Life (Years) Annual kWh Savings/Unit	400 Regional Technical Forum (RTF)								
	400 Regional Technical Forum (RTF) 80% Planning Assumption	Participant Cost Test (PCT) Lifecycle Revenue Impacts (\$/kWh)		\$0.09	\$0.20	\$0.11	2.1		

Home Energy Savings								
Measures Va	alue	Source	Cost Effectiveness Inputs ar	nd Test F	Results			
CFLs # of Units	19,000	Actual Annual Results						
Administrative Expense (if material) \$	20,000	Actual Annual Results		Levelized \$/kWh	Costs	Benefits	Net Benefits	Benefit/ Cost Ratio
Measure Cost (incremental) \$	6.00	PECI - participation data	Total Resource Cost Test (TRC) + Conservation Adder	0.0250	\$3.24	\$9.30	\$6.06	2.871
Incentive Amount/unit \$	1.66	Tariff - 2009	Total Resource Cost Test (TRC) No Adder	0.0250	\$3.24	\$8.46	\$5.22	2.61
Measure Life (Years)		9 Third Party Databases	Utility Cost Test (UCT)	0.0250	\$1.39	\$8.46	\$7.07	6.083
Annual kWh Savings/Unit	3	) Third Party Databases	Utah Rate Impact Test (URIM)		\$3.78	\$8.46	\$4.67	2.235
Net To Gross Ratio	80%	6 Planning Assumption	Participant Cost Test (PCT)		\$1.85	\$12.81	\$10.96	6.927
IRP Decrement Load Shape Used		East Side Residential Whole House Load Shape	Lifecycle Revenue Impacts (\$/kWh)				(\$0.0000284)	

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