Rocky Mountain Power

Draft/Sample DSM Annual Report - Utah

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

Rocky Mountain Power Demand Side Management Team 11/19/2009

Table of Contents

Executive S	Summary (EXAMPLE)	3
20XX Perfor	rmance Compared to Forecast	6
	gement Programs and Activity	
Residential	Energy Efficiency Programs and Activity	10
Non- Reside	ential Energy Efficiency Programs and Activity	14
Outreach ar	nd Communications Program and Activity	15
Overall Rev	enue, Expenditures and Results:	16
Tariff Rider	Balancing Account Summary	
Cost Effective	veness:	19
Appendix:	veness:	24
Sample	A Detail of the second of the	

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

Cost Effectiveness (Five Tests)
Levelized Cost (\$/kWh)
Lifecycle Revenue Impact (\$/kWh)

PTRC	TRC	UCT	RIM	PCT
2.100	2.000	2.300	1.500	1.900
0.0356	0.0356	0.0356		
			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 activities for 20		M Annual report. Summary of
	June 1, 20XX – Filing # to program. Specific n was approved on	Modifications to nodifications include:	_ Program. Filed for changes ,, Filing
	August 1, 20XX – Filing # Change Tariff Rider rate to refle the Commission. An order is ex	ct increased	riff Rider rate (Schedule 193). Filing is being reviewed by
	November 1, 20XX – Filing #	RMP annual [OSM forecast for 20XX+1.
\$3			
	11/18/09	5	Example UT DSM Annual report

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.

Table 2 – 20XX Performance Compared to Forecast

Rocky Mountain Power - Utah		2008 Forecas	st		2008 actu	al
-						
Programs	MW	MWh	Costs	MW	MWh	Costs
Cool Keeper	90	(\$8,250,000	92.1		\$7,178,848
Irrigation Load Control	10		\$375,000	10.4		\$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	0	8,250	\$400,000		7,227	\$209,124
Recommissioning	1	9,250	\$900,000		7,926	\$1,053,381
Central A/C "Cool Cash"		1,600	\$675,000		1,002	\$526,316
Home Energy Savings		13,250	\$4,350,000		43,164	\$7,816,555
Refrig Recycle "SYLR"	7.	24,750	\$3,775,000		25,652	\$2,570,373
Low Income Wx	7	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 efficiency	y - calcula	ted based on IRP g	enerated contribution	on factor		

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.

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
 - 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 http://www.homeenergysavings.net/utah/home 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
 \$ 30,000,000

Cost Effectiveness (Five Tests)
Levelized Cost (\$/kWh)
Lifecycle Revenue Impact (\$/kWh)

PTRC	TRC	UCT	RIM	PCT
2.100	2.000	2.300	1.500	1.900
0.0356	0.0356	0.0356		
			0.00007	

20XX Home Energy Savings Measure Performance

	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			AXS
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			
Duct Sealing + Insulation - Electric	Projects	136	136	54,379
Duct Sealing - Gas	Projects	,		
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
Totals	S	40,445,851	184,944	49,025,007

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, 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 control of the form is a first control of the f
The measures that produced marginal cost effectiveness ratios are currently being
evaluated and will be reviewed with the DSM Advisory Group to determine appropriate

Plans for Next Year:

remedial actions.

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)

Non- Residential Energy Efficiency Programs and Activity

- 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
- e for evaluation, in the property of the prope

Results not be that the land of the season o **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
PROGRAM COSTS - CALCULATION OF CARRYING CHARGES

					I	FERC Reported	
	Monthly Program					· G	Accumulated
	Costs - Fixed	Delayed			Accumulated		Balance Total
	Assets	Amortization	Rate Recovery	Carrying Charge	Balance	AFUDC Rate	Carrying Costs
				, , , ,		-	, ,
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	,A	(2,126,387.62)	(9,405.00)	(1,353,709.19)	8.04%	2,731,927.00
February	1,797,456.18	1	(1,966,856.61)	(9,637.00)	(1,532,746.62)	8.04%	2,722,290.00
March	2,070,729.58	Ca.	(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	<u>-</u>	(1,841,418.55)	(9,715.00)	(1,478,183.76)	8.04%	2,693,802.00
June	1,851,448.10	~ ·	(2,130,467.77)	(10,839.00)	(1,768,042.43)	8.04%	2,682,963.00
July	4,776,663.86	-	(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:

Monthly Program Costs – Fixed Assets: Monthly expenditures for all DSM program activities Rate Recovery: Revenue collected through Schedule 193, DSM cost adjustment rider.

Carrying Charge: Monthly "interest" charge based on "Accumulated Balance" of the account Accumulated Balance: Current balance of the account. A running total of account activities. If more is collected in "Revenue" than is spent "Monthly Program Costs" for a given month, then the Accumulated Balance" will be increased by the net amount.

<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.

Jected \$X

Application Chily, Results and Archival Children Chily, Results and Archival Children Chi

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.

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:

<u>Assumption</u>	<u>Value</u>		Source	
Discount Rate		7.40%	20XX IRP - Company WACC after Tax	>
Line Losses (Utah Specific)			-02	
Residentia	l	9.72%	20XX Rocky Mountain Power Line Loss St	tudy
Commercia	l	9.35%	20XX Rocky Mountain Power Line Loss St	tudy
Industria	1	6.33%	20XX Rocky Mountain Power Line Loss St	tudy

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

Table XX - Overall Demand Side Management Portfolio - Cost Effectiveness

				Benefit/Cost
	Costs	Benefits	Net Benefits	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

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

Example begins on the following page

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

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

Cost Effectiveness Inputs and Test Results

	Levelized \$/kWh	Costs	Benefits	Net Benefits	Benefit/ Cost Ratio
Total Resource Cost Test (PTRC) + Conservation Adder	0.0536				
Total Resource Cost Test (TRC) No Adde	0.0536	\$11,475,017	\$16,744,373	\$5,269,356	1.459
Utility Cost Test (UCT)	0.0341	\$7,298,370	\$16,744,373	\$9,446,003	2.294
Rate Impact Test (RIM)		\$9,909,575	\$16,744,373	\$6,834,798	1.69
Participant Cost Test (PCT)		\$4,176,646	\$25,119,013	\$20,942,366	6.014
Lifecycle Revenue Impacts (\$/kWh)				(\$0.0000284)	
A. 7					

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 measure's overall impact to the program can be understood, used to demonstrate the sensitivity of the program to the measure.

Home Energy Savings							
Measures Val	ue Source	Cost Effectiveness Inputs a	nd Test R	esults			
Ceiling Fans							
# of Units	19,000 Actual Annual Results						
			Levelized	G .	D	N.D. G	Benefit/
Administrative Expense (if material) \$	20,000 Actual Annual Results	T + + D	\$/kWh	Costs	Benefits	Net Benefits	Cost Ratio
Measure Cost (incremental) \$	FO OO Faces Char Database	Total Resource Cost Test (TRC) + Conservation Adder	0.0250	\$0.27	\$0.32	\$0.05	1.18
Measure Cost (incrementar) \$	50.00 Energy Star Database	Total Resource Cost Test (TRC) No Adder	0.0250	\$0.27	\$0.29	\$0.02	1.07
Incentive Amount/unit \$	25.00 Tariff - 2009	Total Hesource Cost Test (THO) No Adder	0.0230	ψ0.27	ψ0.29	φ0.02	1.07
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						
	20.000		Levelized \$/kWh	Costs	Benefits	Net Benefits	Benefit/ Cost Ratio
Administrative Expense (if material) \$	20,000 Actual Annual Results	Total Bassacras Cost Tost (TDC) - Cossessation	0.0250	\$0.27	\$0.32	\$0.05	
		Total Resource Cost Test (TRC) + Conservation Adder	0.0230	\$0.27	\$0.32	\$0.05	1.18
Measure Cost (incremental) \$	150.00 RTF Estimate	Addel					
		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 Ratio
		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	1.07
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
	183 Regional technical Forum (RTF)	Utah Rate Impact Test (URIM)		\$0.19	\$0.29	\$0.10	1.53
Annual kWh Savings/Unit	• • •						
Annual kWh Savings/Unit Net To Gross Ratio IRP Decrement Load Shape Used	80% Planning Assumption East Side Residential Whole House Load Shape	Participant Cost Test (PCT) Lifecycle Revenue Impacts (\$/kWh)		\$0.09	\$0.20	\$0.11 (\$0.0000284)	2.17

Home Energy Savings							
Measures Val	lue Source	Cost Effectiveness Inputs ar	nd Test R	esults			
Clothes Washer Recycling							
W 511 11	10.000						
# of Units	19,000 Actual Annual Results						
			Levelized				Benefit/
Administrative Expense (if material) \$	20,000 Actual Annual Results		\$/kWh	Costs	Benefits	Net Benefits	Cost Ratio
		Total Resource Cost Test (TRC) + Conservation	0.0250	\$0.27	\$0.32	\$0.05	1.182
Measure Cost (incremental) \$	50.00 D&R International	Adder					
		Total Resource Cost Test (TRC) No Adder	0.0250	\$0.27	\$0.29	\$0.02	1.074
Incentive Amount/unit \$	25.00 Tariff - 2009	LUCIUS CO. LT. L (LICT)	0.0250	20.40	\$2.22	***	
Measure Life (Years)	15 D&R International	Utility Cost Test (UCT)	0.0250	\$0.18	\$0.29	\$0.11	1.606
Annual kWh Savings/Unit	120 D&R International	Utah Rate Impact Test (URIM)		\$0.19	\$0.29	\$0.10	1.532
Net To Gross Ratio	80% Planning Assumption	Participant Cost Test (PCT)		\$0.09	\$0.20	\$0.11	2.178
IRP Decrement Load Shape Used	East Side Residential Whole House Load Shape	Lifecycle Revenue Impacts (\$/kWh)				(\$0.0000284)	
Distance							
Dishwasher # of Units	19.000 Actual Annual Results						
# Of Office	19,000 Actual Allitual Results			1	I		
			Levelized				Benefit/
Administrative Expense (if material) \$	20,000 Actual Annual Results		\$/kWh	Costs	Benefits	Net Benefits	Cost Ratio
		Total Resource Cost Test (TRC) + Conservation	0.0250	\$0.27	\$0.32	\$0.05	1.182
Measure Cost (incremental) \$	31.00 Energy Star Database	Adder					
modelie eest (meremenal) y	Silos Ellely star Batasase	Total Resource Cost Test (TRC) No Adder	0.0250	\$0.27	\$0.29	\$0.02	1.074
Incentive Amount/unit \$	20.00 Tariff - 2009	7544 715554 755 7554 (7715) 715 715 25	*******	40.2 7	Ų0. <u>2</u> 0	Ų0.0 <u>2</u>	
Measure Life (Years)		Utility Cost Test (UCT)	0.0250	\$0.18	\$0.29	\$0.11	1.606
, ,	9 Energy Star Database	Utah Rate Impact Test (URIM)	0.0230	\$0.10	\$0.29 \$0.29	\$0.11	1.532
Annual kWh Savings/Unit	20 Energy Star Database		<u> </u>	\$0.19	\$0.29 \$0.20	\$0.10	
Net To Gross Ratio	80% Planning Assumption	Participant Cost Test (PCT) Lifecycle Revenue Impacts (\$/kWh)		\$0.09	\$0.20	•	2.178
IRP Decrement Load Shape Used	East Side Residential Whole House Load Shape	Effective Revenue Impacts (\$/kWff)				(\$0.0000284)	
Electric Water Heater							
# of Units	19,000 Actual Annual Results						
# Of Office	19,000 Actual Allitual Results						
			Levelized				Benefit/
Administrative Expense (if material) \$	20,000 Actual Annual Results		\$/kWh	Costs	Benefits	Net Benefits	Cost Ratio
Administrative Expense (ii material) 3	20,000 Actual Allitual Results	Total Resource Cost Test (TRC) + Conservation	0.0250	\$0.27	\$0.32	\$0.05	
Manager Coat (in argentation)	60.00 PECI - 2009	Adder	0.0230	ψ0.2 <i>1</i>	ψ0.02	ψ0.03	1.102
Measure Cost (incremental) \$	60.00 PECI - 2009		0.0250	¢0.07	60.00	#0.00	1.074
Incentive Amount/unit \$	50.00 Tariff - 2009	Total Resource Cost Test (TRC) No Adder	0.0250	\$0.27	\$0.29	\$0.02	1.074
·		Hillity Coat Toot (LICT)	0.0250	\$0.18	\$0.29	\$0.11	1 000
Measure Life (Years)	10 PECI, RTF	Utility Cost Test (UCT)	0.0230	\$0.18 \$0.19	\$0.29 \$0.29	\$0.11	1.606 1.532
Annual kWh Savings/Unit	90 PECI, RTF	Utah Rate Impact Test (URIM)		\$0.19 \$0.09	\$0.29 \$0.20	\$0.10	
Net To Gross Ratio	80% Planning Assumption	Participant Cost Test (PCT)		\$0.09	\$0.20	\$0.11	2.178
IRP Decrement Load Shape Used	East Side Residential Whole House Load Shape	Lifecycle Revenue Impacts (\$/kWh)	1			(\$0.0000284)	

Home Energy Savings							
Measures Val	ue Source	Cost Effectiveness Inputs a	nd Test R	Results			
Fixtures							
# 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
Administrative Expense (ii material) \$	20,000 Actual Allitual Results	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	0.0230	ψ0.27	ψ0.02	ψ0.03	1.10
Measure Cost (incrementar) 3	30.00 Ellergy Star Database	Total Resource Cost Test (TRC) No Adder	0.0250	\$0.27	\$0.29	\$0.02	1.07
Incentive Amount/unit \$	25.00 Tariff - 2009	Total Noosalso Cook 1556 (1116) No Nausi	0.000	Ų0.E.	\$0.20	\$0.02	1.07
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	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)	
Befrigerator							
Refrigerator							
# of Units	19,000 Actual Annual Results						
			Levelized				Benefit/
Administrative Expense (if material) \$	20,000 Actual Annual Results		\$/kWh	Costs	Benefits	Net Benefits	Cost Ratio
/ tallimodative Expense (ii material) y	20,000 / locadi / limitali Nesalis	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			•		
, ,	5, company	Total Resource Cost Test (TRC) No Adder	0.0250	\$0.27	\$0.29	\$0.02	1.07
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	1.60
Annual kWh Savings/Unit	98 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)	1	\$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)	
Insulation: Attic (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 Ratio
		Total Resource Cost Test (TRC) + Conservation	0.0250	\$0.27	\$0.32	\$0.05	1.18
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	1.07
	0.40 Tariff - 2009						
Incentive Amount/unit \$	0.40 Tariir - 2009			00.40	\$0.29	\$0.11	1.60
Measure Life (Years)	45 Regional technical Forum (RTF)	Utility Cost Test (UCT)	0.0250	\$0.18			
•		Utility Cost Test (UCT) Utah Rate Impact Test (URIM)	0.0250	\$0.18 \$0.19	\$0.29 \$0.29	\$0.10	1.53
Measure Life (Years)	45 Regional technical Forum (RTF)	, ,	0.0250				

Home Energy Savings							
Measures Val	ue Source	Cost Effectiveness Inputs a	nd Test R	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 Ratio
		Total Resource Cost Test (TRC) + Conservation Adder	0.0250	\$0.27	\$0.32	\$0.05	1.18
Measure Cost (incremental) \$	2.50 PECI - 2009		0.0250	₾0.07	60.00	#0.00	1.07
In a setting A manual/mit C	0.70 T:# 2000	Total Resource Cost Test (TRC) No Adder	0.0250	\$0.27	\$0.29	\$0.02	1.07
Incentive Amount/unit \$ Measure Life (Years)	0.70 Tariff - 2009 45 PECI, RTF	Utility Cost Test (UCT)	0.0250	\$0.18	\$0.29	\$0.11	1.60
Annual kWh Savings/Unit	0.119 PECI, RTF	Utah Rate Impact Test (URIM)	0.0230	\$0.18	\$0.29 \$0.29	\$0.11	1.53
Net To Gross Ratio	80% Planning Assumption	Participant Cost Test (PCT)		\$0.09	\$0.29	\$0.10	2.17
IRP Decrement Load Shape Used	East Side Residential Whole House Load Shape		1	ψ0.00	ψ0. Σ 0	(\$0.0000284)	2.17
Boolomon Boar onapo Good	zastolae nesiaelitai villole noase zoaa shape	1 ()	<u> </u>			(,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	
Insulation: Wall (sq ft) # of Units	19,000 Actual Annual Results						
# Of Office	19,000 Actual Allitual Results						
			Levelized				Benefit/
Administrative Expense (if material) \$	20,000 Actual Annual Results		\$/kWh	Costs	Benefits	Net Benefits	Cost Ratio
		Total Resource Cost Test (TRC) + Conservation	0.0250	\$0.27	\$0.32	\$0.05	1.18
Measure Cost (incremental) \$	2.00 Analysis of past participation	Adder					
modeline eset (moremental) y	2.00 7.maryoto or past participation	Total Resource Cost Test (TRC) No Adder	0.0250	\$0.27	\$0.29	\$0.02	1.07
Incentive Amount/unit \$	0.70 Tariff - 2009				• • •		
Measure Life (Years)	45 Regional Technical Forum (RTF)	Utility Cost Test (UCT)	0.0250	\$0.18	\$0.29	\$0.11	1.60
Annual kWh Savings/Unit	0.217 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)	
Mindows (Co. F4)							
Windows (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 Ratio
		Total Resource Cost Test (TRC) + Conservation	0.0250	\$0.70	\$1.81	\$1.12	2.60
Measure Cost (incremental) \$	3.50 Analysis of Third Party Data	Adder					
		Total Resource Cost Test (TRC) No Adder	0.0250	\$0.70	\$1.65	\$0.95	2.3
Incentive Amount/unit \$	1.50 Tariff - 2009						
Measure Life (Years)	45 Regional Technical Forum (RTF)	Utility Cost Test (UCT)	0.0250	\$0.81	\$1.65	\$0.84	2.03
Annual kWh Savings/Unit	185 Regional Technical Forum (RTF)	Utah Rate Impact Test (URIM)		\$0.86	\$1.65	\$0.79	1.91
	80% Planning Assumption	Participant Cost Test (PCT)		(\$0.12)	\$1.11	\$1.22	N/
Net To Gross Ratio IRP Decrement Load Shape Used	East Side Residential Whole House Load Shape			V. /		(\$0.0000284)	

Home Energy Savings							
Measures Va	alue Source	Cost Effectiveness Inputs a	nd Test R	lesults			
CAC/HP Tune up							
# 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
Administrative Expense (ii material) \$	20,000 Actual Annual Results	Total Resource Cost Test (TRC) + Conservation	0.0250	\$0.27	\$0.32	\$0.05	1.18
Measure Cost (incremental) \$	100.00 PECI - 2009	Adder	0.0230	Ψ0.27	ψ0.02	ψ0.03	1.10
Measure Cost (Incrementar) \$	100.00 PECI - 2009	Total Resource Cost Test (TRC) No Adder	0.0250	\$0.27	\$0.29	\$0.02	1.07
Incentive Amount/unit \$	50.00 Tariff - 2009	Total Nessuree Obst Test (Tho) No Adder	0.0230	Ψ0.27	ψ0.23	ψ0.02	1.07
Measure Life (Years)	5 PECI, RTF	Utility Cost Test (UCT)	0.0250	\$0.18	\$0.29	\$0.11	1.60
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	2.17
IRP Decrement Load Shape Used	East Side Residential Whole House Load Shape	Lifecycle Revenue Impacts (\$/kWh)				(\$0.0000284)	
			Levelized				Benefit/
Room AC Units # of Units	19,000 Actual Annual Results						
			T 11 1				D C1/
Administrative Expense (if material) \$	20,000 Actual Annual Results		\$/kWh	Costs	Benefits	Net Benefits	Cost Ratio
. , , ,		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	1.07
	25.00 Tariff - 2009					4	
Incentive Amount/unit \$							1.60
Measure Life (Years)	10 Energy Star Database	Utility Cost Test (UCT)	0.0250	\$0.18	\$0.29	\$0.11	
Measure Life (Years) Annual kWh Savings/Unit	92 Energy Star Database	Utah Rate Impact Test (URIM)	0.0250	\$0.19	\$0.29	\$0.10	1.53
Measure Life (Years) Annual kWh Savings/Unit Net To Gross Ratio	92 Energy Star Database 80% Planning Assumption	Utah Rate Impact Test (URIM) Participant Cost Test (PCT)	0.0250			\$0.10 \$0.11	
Measure Life (Years) Annual kWh Savings/Unit	92 Energy Star Database	Utah Rate Impact Test (URIM)	0.0250	\$0.19	\$0.29	\$0.10	1.53
Measure Life (Years) Annual kWh Savings/Unit Net To Gross Ratio	92 Energy Star Database 80% Planning Assumption	Utah Rate Impact Test (URIM) Participant Cost Test (PCT)	0.0250	\$0.19	\$0.29	\$0.10 \$0.11	1.53
Measure Life (Years) Annual kWh Savings/Unit Net To Gross Ratio	92 Energy Star Database 80% Planning Assumption	Utah Rate Impact Test (URIM) Participant Cost Test (PCT)	0.0250	\$0.19	\$0.29	\$0.10 \$0.11	1.53
Measure Life (Years) Annual kWh Savings/Unit Net To Gross Ratio IRP Decrement Load Shape Used	92 Energy Star Database 80% Planning Assumption	Utah Rate Impact Test (URIM) Participant Cost Test (PCT)	0.0250	\$0.19	\$0.29	\$0.10 \$0.11	1.53
Measure Life (Years) Annual kWh Savings/Unit Net To Gross Ratio IRP Decrement Load Shape Used Duct Sealing + Insulation - Electric	92 Energy Star Database 80% Planning Assumption East Side Residential Whole House Load Shape	Utah Rate Impact Test (URIM) Participant Cost Test (PCT)	0.0250	\$0.19	\$0.29	\$0.10 \$0.11	1.53. 2.17
Measure Life (Years) Annual kWh Savings/Unit Net To Gross Ratio IRP Decrement Load Shape Used Duct Sealing + Insulation - Electric # of Units	92 Energy Star Database 80% Planning Assumption East Side Residential Whole House Load Shape 19,000 Actual Annual Results	Utah Rate Impact Test (URIM) Participant Cost Test (PCT)	Levelized	\$0.19 \$0.09	\$0.29 \$0.20	\$0.10 \$0.11 (\$0.000284)	1.53. 2.17
Measure Life (Years) Annual kWh Savings/Unit Net To Gross Ratio IRP Decrement Load Shape Used Duct Sealing + Insulation - Electric	92 Energy Star Database 80% Planning Assumption East Side Residential Whole House Load Shape	Utah Rate Impact Test (URIM) Participant Cost Test (PCT) Lifecycle Revenue Impacts (\$/kWh)	Levelized S/kWh	\$0.19 \$0.09	\$0.29 \$0.20	\$0.10 \$0.11 (\$0.000284)	1.53. 2.17i Benefit/ Cost Ratio
Measure Life (Years) Annual kWh Savings/Unit Net To Gross Ratio IRP Decrement Load Shape Used Duct Sealing + Insulation - Electric # of Units Administrative Expense (if material) \$	92 Energy Star Database 80% Planning Assumption East Side Residential Whole House Load Shape 19,000 Actual Annual Results 20,000 Actual Annual Results	Utah Rate Impact Test (URIM) Participant Cost Test (PCT) Lifecycle Revenue Impacts (\$/kWh) Total Resource Cost Test (TRC) + Conservation	Levelized	\$0.19 \$0.09	\$0.29 \$0.20	\$0.10 \$0.11 (\$0.000284)	1.53 2.17 Benefit/ Cost Ratio
Measure Life (Years) Annual kWh Savings/Unit Net To Gross Ratio IRP Decrement Load Shape Used Duct Sealing + Insulation - Electric # of Units	92 Energy Star Database 80% Planning Assumption East Side Residential Whole House Load Shape 19,000 Actual Annual Results	Utah Rate Impact Test (URIM) Participant Cost Test (PCT) Lifecycle Revenue Impacts (\$/kWh) Total Resource Cost Test (TRC) + Conservation Adder	Levelized S/kWh 0.0250	\$0.19 \$0.09 \$0.09 Costs	\$0.29 \$0.20 \$0.20 Benefits \$0.32	\$0.10 \$0.11 (\$0.000284) Net Benefits \$0.05	1.53 2.17/ Benefit/ Cost Ratio
Measure Life (Years) Annual kWh Savings/Unit Net To Gross Ratio IRP Decrement Load Shape Used Duct Sealing + Insulation - Electric # of Units Administrative Expense (if material) \$ Measure Cost (incremental) \$	92 Energy Star Database 80% Planning Assumption East Side Residential Whole House Load Shape 19,000 Actual Annual Results 20,000 Actual Annual Results 250.00 PECI - participation data	Utah Rate Impact Test (URIM) Participant Cost Test (PCT) Lifecycle Revenue Impacts (\$/kWh) Total Resource Cost Test (TRC) + Conservation	Levelized S/kWh	\$0.19 \$0.09	\$0.29 \$0.20	\$0.10 \$0.11 (\$0.000284)	1.53. 2.17i Benefit/ Cost Ratio
Measure Life (Years) Annual kWh Savings/Unit Net To Gross Ratio IRP Decrement Load Shape Used Duct Sealing + Insulation - Electric # of Units Administrative Expense (if material) \$ Measure Cost (incremental) \$ Incentive Amount/unit \$	92 Energy Star Database 80% Planning Assumption East Side Residential Whole House Load Shape 19,000 Actual Annual Results 20,000 Actual Annual Results 250.00 PECI - participation data 75.00 Tariff - 2009	Utah Rate Impact Test (URIM) Participant Cost Test (PCT) Lifecycle Revenue Impacts (\$/kWh) Total Resource Cost Test (TRC) + Conservation Adder Total Resource Cost Test (TRC) No Adder	Levelized S/kWh 0.0250	\$0.19 \$0.09 \$0.09 Costs \$0.27	\$0.29 \$0.20 \$0.20 \$0.20 \$0.32	\$0.10 \$0.11 (\$0.000284) Net Benefits \$0.05	1.53 2.17d Benefit/ Cost Ratio 1.18d
Measure Life (Years) Annual kWh Savings/Unit Net To Gross Ratio IRP Decrement Load Shape Used Duct Sealing + Insulation - Electric # of Units Administrative Expense (if material) \$ Measure Cost (incremental) \$ Incentive Amount/unit \$ Measure Life (Years)	92 Energy Star Database 80% Planning Assumption East Side Residential Whole House Load Shape 19,000 Actual Annual Results 20,000 Actual Annual Results 250.00 PECI - participation data 75.00 Tariff - 2009 15 Regional Technical Forum (RTF)	Utah Rate Impact Test (URIM) Participant Cost Test (PCT) Lifecycle Revenue Impacts (\$/kWh) Total Resource Cost Test (TRC) + Conservation Adder Total Resource Cost Test (TRC) No Adder Utility Cost Test (UCT)	Levelized S/kWh 0.0250	\$0.19 \$0.09 \$0.09 Costs \$0.27 \$0.27	\$0.29 \$0.20 \$0.20 \$0.20 Benefits \$0.32 \$0.29	\$0.10 \$0.11 (\$0.000284) Net Benefits \$0.05 \$0.02	1.53 2.17d Benefit/ Cost Ratio 1.18d 1.07-
Measure Life (Years) Annual kWh Savings/Unit Net To Gross Ratio IRP Decrement Load Shape Used Duct Sealing + Insulation - Electric # of Units Administrative Expense (if material) \$ Measure Cost (incremental) \$ Incentive Amount/unit \$	92 Energy Star Database 80% Planning Assumption East Side Residential Whole House Load Shape 19,000 Actual Annual Results 20,000 Actual Annual Results 250.00 PECI - participation data 75.00 Tariff - 2009	Utah Rate Impact Test (URIM) Participant Cost Test (PCT) Lifecycle Revenue Impacts (\$/kWh) Total Resource Cost Test (TRC) + Conservation Adder Total Resource Cost Test (TRC) No Adder	Levelized S/kWh 0.0250	\$0.19 \$0.09 \$0.09 Costs \$0.27	\$0.29 \$0.20 \$0.20 \$0.20 \$0.32	\$0.10 \$0.11 (\$0.000284) Net Benefits \$0.05	1.53 2.17d Benefit/ Cost Ratio 1.18d

Home Energy Savings								
Measures	Value	Source	Cost Effectiveness Inputs ar	nd Test F	Results			
CFLs # of Unit	s 19,000	O Actual Annual Results						
Administrative Expense (if material) \$ 20,000	O Actual Annual Results		Levelized \$/kWh	Costs	Benefits	Net Benefits	Benefit/ Cost Ratio
Measure Cost (incremental) \$ 6.00	D PECI - participation data	Total Resource Cost Test (TRC) + Conservation Adder	0.0250	\$3.24	\$9.30	\$6.06	2.871
Incentive Amount/uni	t \$ 1.60	5 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/Uni	t 3	O Third Party Databases	Utah Rate Impact Test (URIM)		\$3.78	\$8.46	\$4.67	2.235
Net To Gross Ratio	80	% Planning Assumption	Participant Cost Test (PCT)		\$1.85	\$12.81	\$10.96	6.927
IRP Decrement Load Shape Used	i	East Side Residential Whole House Load Shape	Lifecycle Revenue Impacts (\$/kWh)				(\$0.0000284)	

uring the reportir.

Regulation Only Regulatio