

Utah 2008 Cool Cash Program Cost Effectiveness

This report provides a cost-effectiveness analysis of PacifiCorp’s preliminary estimates for the 2008 Cool Cash Program in Utah. The analysis is based on the 2007 IRP decrement avoided costs. The discount rate is the after-tax weighted cost of capital from PacifiCorp’s Utah rate case, Docket 04-035-42, the most recent commission order on cost of capital. Cost effectiveness parameters for line losses and 2006 average retail rates were provided by PacifiCorp’s regulation department.

The following tables present the evaluation inputs, the per-unit costs and savings assumptions, the total program cost, and the IRP 7% residential cooling load factor decrement results. The IRP decrement values are derived from the Company’s 2007 IRP analysis and reflect the specific value of the program to Rocky Mountain Power’s Utah service territory.

Table 1 lists the program inputs cost effectiveness inputs.

Table 1: Common Program Inputs

Parameter	Value
Discount Rate	7.126%
Line Loss	8.859%
Energy Rate (\$/kWh)	\$0.0748

Table 2 presents the program participation, incentive levels and per unit cost and savings estimates. Table 3 presents the total program costs and savings.

Table 2: Program Participation

Program Options	Savings Lifetime	Annual Participation	Net Annual Energy Savings (kWh/yr/unit)	Net Demand Savings (kW/unit)	Gross Incremental Customer Cost (\$/unit)	Customer Incentive (\$/unit)	Dealer Incentive (\$/unit)
Evaporative							
Replacement	15	412	303	0.53	(\$2,173)	\$100	
New	15	248	533	0.93	(\$2,173)	\$200	
Premium	15	4	909	1.58		\$750	\$275
Subtotal		664					
Central AC							
Sizing + TXV	15	1,166	82	0.05		\$50	\$25
Charge and Airflow	10	1,013	74	0.22		\$0	\$50

15+ SEER/12.5+ EER	15	1,193	144	0.21	\$957	\$150	
Subtotal		3,372					
Total		4,036					

Table 3: Costs and Savings

Program Year	Program Administration	Utility Administration	Incentives	Total Utility Cost	Net Participant Cost	Annual kWh Savings
2008	\$184,610	\$50,000	\$411,950	\$646,560	(\$27,090)	603,159

Table 4: The program is cost effective from all perspectives. The participant cost ratio is not calculated due to negative participant costs.

Table 4: IRP 7% Load Factor Decrement

All Measures	AC: IRP 7% Load Factor				
	Levelized \$/kWh	Costs	Benefits	Net Benefit	Ratio
Total Resource Cost Test (TRC) + Conservation Adder	0.0538	\$269,234	\$957,345	\$688,111	3.556
Total Resource Cost Test (TRC) No Adder	0.0538	\$269,234	\$870,313	\$601,079	3.233
Utility Cost Test (UCT)	0.1206	\$603,551	\$870,313	\$266,762	1.442
Rate Impact Test		\$648,667	\$870,313	\$221,646	1.342
Participant Cost Test (PCT)		(\$334,317)	\$456,871	\$791,188	n/a
Lifecycle Revenue Impacts (\$/kWh)				(\$0.0000005729)	