

Date: April 12, 2009
To: Don Jones Jr.
From: Brian Hedman
Re: Utah Home Energy Savings 2009 Program Cost Effectiveness – no RMP adjust – QGC adjust pro-forma

The tables below present the cost effectiveness findings of the Utah Home Energy Savings program based on 2009 costs and savings estimates provided by PacifiCorp in a spreadsheet entitled “2009 HES CE for insulation update on 041209”. The Utility discount rate is from the 2007 PacifiCorp Integrated Resource Plan.

Cost effectiveness was tested using the 2007 IRP 60% east side residential lighting home load factor decrement. Table 1 lists modeling inputs.

The program is cost effective from the TRC, UCT, URIM and PCT perspectives.

**Table 1: Home Energy Savings
 Inputs**

Parameter	Value
Discount Rate	7.1%
Line Loss	8.859%
Residential Energy Rate (\$/kWh)	\$0.083

**Table 2: Home Energy Savings
 Annual Program Costs and Savings**

	Program Costs	Incentives	Total Costs	Net kWh	Net Incremental Cost
Lighting	44,118	1,110,262	1,154,380	27,476,970	3,473,401
Windows	-	286,716	286,716	50,090	326,959
Insulation	1,532,997	19,938,962	21,471,959	5,309,155	16,425,646
Appliances	775,669	1,504,468	2,280,137	3,001,845	4,220,599
CW Recycling	50,200	12,550	62,750	36,144	-
Total	2,402,984	22,852,958	25,255,942	35,874,205	24,446,606

Table 3: Insulation Measure Detail

Efficiency measure	Total square feet (units)	Savings – gross (kWh)	Incentive \$	Admin at \$0.027/sq ft	Gross Customer costs	Cost/sq ft
Attic - gas	54,176,082	6,270,352	\$18,961,629	\$1,462,754	\$19,503,390	\$0.36
Attic electric						\$0.71
Floor - gas	1,933,785	219,013	\$676,825	\$52,212	\$734,838	\$0.38
Floor - electric						\$0.38
Wall - gas	667,796	147,079	\$300,508	\$18,031	\$293,830	\$0.44
Wall - electric						\$0.88
Totals	56,777,663	6,636,444	\$19,938,962	\$1,532,997	\$20,532,058	

Table 4: IRP 60% Load Factor Decrement

All Measures	Levelized \$/kWh	AC: IRP 60% LF Decrement			
		Costs	Benefits	Net Benefits	Benefit/Cost Ratio
Total Resource Cost Test (PTRC) + Conservation Adder	0.0914	\$25,069,645	\$27,000,643	\$1,930,998	1.077
Total Resource Cost Test (TRC) No Adder	0.0914	\$25,069,645	\$24,546,039	(\$523,606)	0.979
Utility Cost Test (UCT)	0.0860	\$23,581,646	\$24,546,039	\$964,393	1.041
Rate Impact Test (RIM)		\$26,559,204	\$24,546,039	(\$2,013,166)	0.924
Participant Cost Test (PCT)		\$1,488,000	\$33,327,842	\$31,839,842	22.398
Lifecycle Revenue Impacts (\$/kWh)				\$0.0000056582	