

Date: April 12, 2009

To: Don Jones Jr.

From: Brian Hedman

Re: Utah Home Energy Savings 2009 Program Cost Effectiveness – April 1 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	\$0	\$286,716	\$286,716	50,090	\$326,959
Insulation	\$858,517	\$7,215,306	\$8,073,823	4,371,450	\$9,360,646
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	\$0
Total	\$1,728,504	\$10,129,302	\$11,857,806	34,936,499	\$17,381,605

Table 3: Insulation Measure Detail

Efficiency measure	Total square feet (units)	Savings – gross (kWh)	Incentive \$	Admin at \$0.0227/sq ft	Gross Customer Costs	Cost/sq ft
Attic - gas	30,060,252	4,386,992	\$6,684,063	\$811,627	\$10,821,691	\$0.36
Attic electric	522,047	832,995	\$169,389	\$14,095	\$370,653	\$0.71
Floor - gas	557,614	48,361	\$195,165	\$15,056	\$211,893	\$0.38
Floor - electric	22,295	34,817	\$7,718	\$602	\$8,472	\$0.38
Wall - gas	614,679	94,622	\$149,951	\$16,596	\$270,459	\$0.44
Wall - electric	20,045	66,525	\$9,020	\$541	\$17,640	\$0.88
Totals	31,796,932	5,464,312	\$7,215,306	\$858,517	\$11,700,808	

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	0.0701	\$17,843,240	\$25,177,488	\$7,334,248	1.411
Total Resource Cost Test (TRC) No Adder	0.0701	\$17,843,240	\$22,888,625	\$5,045,385	1.283
Utility Cost Test (UCT)	0.0435	\$11,071,715	\$22,888,625	\$11,816,910	2.067
Rate Impact Test (RIM)		\$13,971,444	\$22,888,625	\$8,917,181	1.638
Participant Cost Test (PCT)		\$6,771,525	\$31,583,929	\$24,812,404	4.664
Lifecycle Revenue Impacts (\$/kWh)				(\$0.0000250626)	