



Hawaii Energy

# Hawaii Energy Efficiency Program

## 2010 Status of Efficiency and Conservation Update and Solar Water Heating Discussion

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# **PY2009 Hawaii Energy Results**

<http://www.hawaiienergy.com/75/hawaii-energy-report-card>



# PY2009 Hawaii Energy Results

*Table 4 – PY2009 Performance Net Impact Summary*

PY2009 Performance Net Impact Summary				
	Target	PY2009 Results	% of Target	
Residential Energy	68,722,000 kWh	66,486,914 kWh	97%	
Commercial Energy	57,301,000 kWh	46,672,459 kWh	81%	
Peak Demand	20,097 kW	22,767 kW	113%	
TRB	\$ 140,079,739	\$ 126,547,369	90%	
Market Transformation				
Emerging Technologies	20	21	105%	
Trade Ally Referrals	40	423	1058%	
Island Equity				
C&C Honolulu	\$ 8,043,361	\$ 10,086,557	+25%	
County of Hawaii	\$ 1,403,448	\$ 950,321	-32%	
County of Maui	\$ 2,405,320	\$ 815,251	-66%	

*Measurement is fundamental to real energy awareness.*



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# Contribution by Measure

**PY2009 Contribution by Measure in order of Net Lifetime Energy Impact**

Measure	Applications	Net Demand Impact		Net Energy Impact		Net Energy Impact		
		%	kW	%	kWh 1st Year	%	kWh Life	
CFL	8,752	22%	10,267	45%	55,959,109	49%	279,818,893	28%
Commercial Lighting	638	2%	4,604	20%	25,419,490	22%	224,259,420	23%
Solar Water Heater	5,178	13%	2,103	9%	9,257,998	8%	138,869,971	14%
Custom - Envelope	13	0%	742	3%	5,179,447	5%	113,946,881	12%
HVAC - Package / Split	290	1%	1,041	5%	3,684,115	3%	55,261,718	6%
HVAC - Chiller	10	0%	576	3%	1,802,944	2%	36,058,876	4%
Refrigerator	7,797	19%	731	3%	1,973,375	2%	23,680,504	2%
Window AC	5,122	13%	849	4%	1,666,787	1%	20,001,443	2%
Clothes Washer	6,364	16%	596	3%	1,609,134	1%	19,411,179	2%
Custom	29	0%	297	1%	2,016,689	2%	17,783,102	2%
Envelope - Window Film	17	0%	96	0%	843,668	1%	16,873,361	2%
HVAC - VFD Fan	36	0%	182	1%	691,805	1%	13,836,096	1%
Dishwasher	2,506	6%	234	1%	632,581	1%	7,705,711	1%
Ceiling Fans	1,593	4%	19	0%	749,185	1%	3,745,924	0%
HVAC - VFD Water Pumping	8	0%	48	0%	175,104	0%	3,502,075	0%



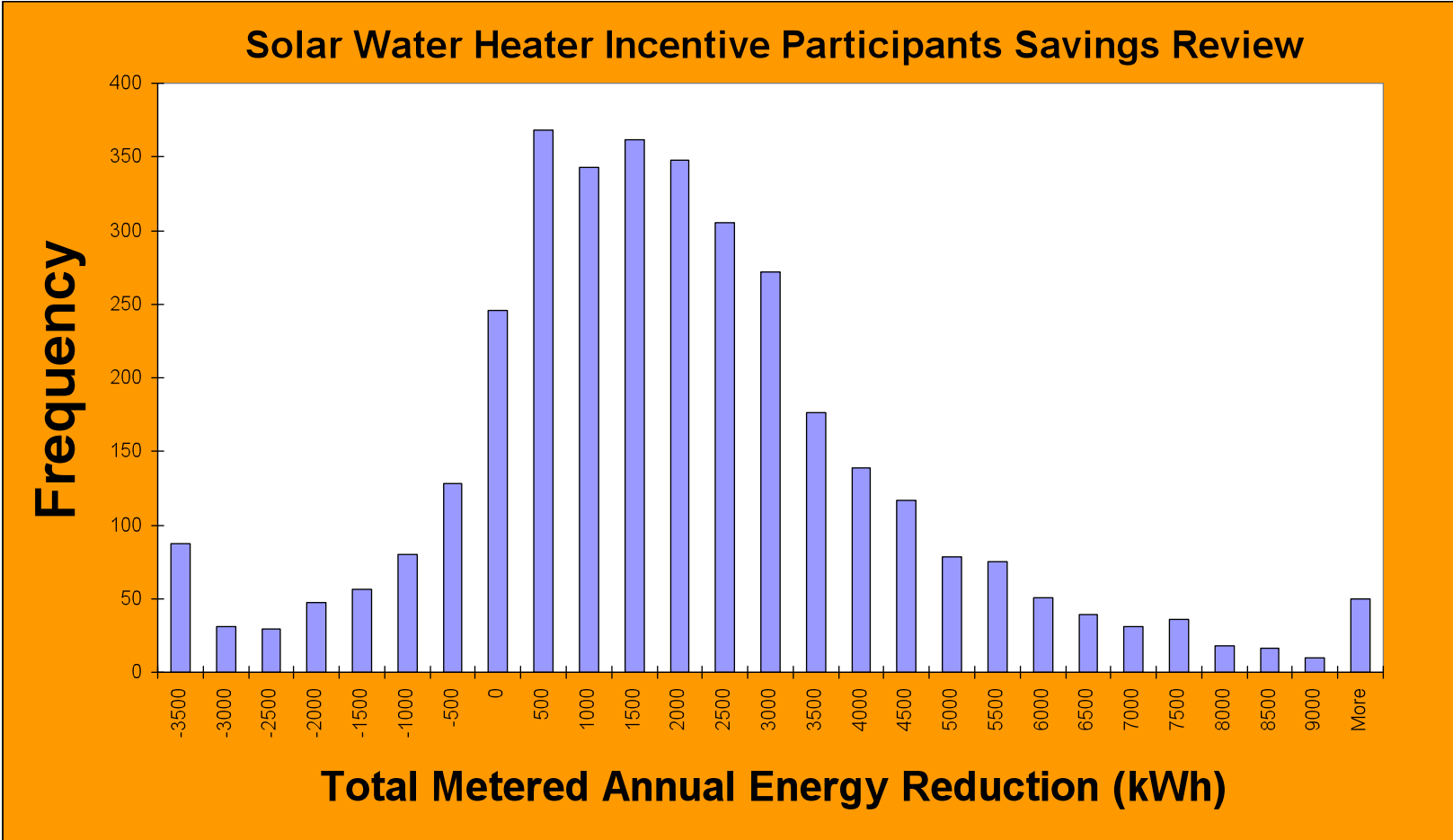
# Perspective

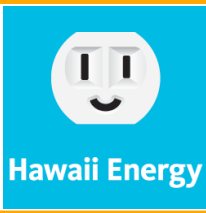
*Table 28 – PY2009 Energy Impacts vs. 2009 Sales*

<b>Hawaii Energy PY2009 Portfolio Energy (kWh) Reduction Impacts</b>			
	<b>2009 kWh Sales*</b>	<b>PY2009 Customer Savings</b>	<b>Customer % of Sales</b>
Oahu	7,761,600,000	116,985,432	1.5%
Hawaii	1,210,000,000	12,855,492	1.1%
Mauli	1,203,500,000	9,808,510	0.8%
Lanai	27,400,000	61,937	0.2%
Molokai	34,900,000	85,581	0.2%
<b>Total</b>	<b>10,237,400,000</b>	<b>139,796,953</b>	<b>1.4%</b>
* Reported by HEI in SEC Form 410K			



# Solar Thermal Impact





# Solar Thermal Market

Potential Market		
	512,881	Homes
40%	205,152	Condo/Apartment
60%	307,729	Single Family
	512,881	Homes
55%	282,085	Owned
45%	230,796	Rented
	56,000	Program Systems
	24,000	Existing/Outside
	<b>80,000</b>	<b>Installed Systems</b>



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## Solar Contribution to HCEI

2010 to 2030	Component	Per year
200,000	Systems by 2030	10,000
2,250 kWh	Savings per System	2,250 kWh
450,000,000	kWh Savings	22,500,000
4,300,000,000	HCEI Goal	215,000,000
10.5%	Contribution to Goal	10.5%
\$ 7,000	Cost per System	\$ 7,000
\$ 1,400,000,000	Investment	\$ 70,000,000





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[www.hawaiienergy.com](http://www.hawaiienergy.com)

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