

CalCAP Metrics: Emissions Factors and Price - Water Conservation in the Greek Community

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Estimated Project Savings	Input (Enter estimated savings here in kWh, gallons, and/or pounds)	Calculated cost savings (\$)	Calculated GHG reductions (kg Co2e)
Estimated electricity savings (kWh)	59,250	\$5,925.00	16,531
Estimated water savings (gallons)	5,567,000	\$26,123.22	22,268
Estimated gasoline savings (gallons)	0	\$0.00	0
Estimated waste reduction (pounds)	0	\$0.00	0

Emissions Factors and Costs	GHG emissions factor	Price
Electricity	0	\$0.10
Water	0	\$3.51
Gasoline	9	\$3.00
Waste	0	\$0.07

**Please feel free to add any statistics that are relevant to your project, but please explain your calculations

Source: Cal Climate Action Partnership greenhouse gas emissions inventory calculations, 2009.

Item	Water Savings/Unit	Energy Savings / Unit	February Pilot Quantity	Water Savings (gallons)	Energy Savings (kWh)	April Competition Quantity	Water Savings (gallons)	Energy Savings (kWh)
Low Flow (1.5 Gallon per minute) showerhead	10 gallons saved per shower x 2 showers per day x 365 days = 7,300 gallons/year [1]	0.18 kWh/gallon of water heated x 3,650 gallons/ year = 237 kWh/year/showerhead [5]	70	511,000	16,590	180	1,314,000	42,660
Faucet aerators	1 gallon / minute x 10 minutes / faucet/ day x 365 days = 3,650 gallons/year [2]		150	547,500		300	1,095,000	
Multi-flush toilet adapter kits	4,000 gallons/ toilet/ year [3]		75	300,000		240	960,000	
Water Conservation Education	1 gallon / person / day x 365 days = 365 gallons [4]		~300 people	109,500		~2,000 people	730,000	
TGIF-approve water conservation project for winner	project to be determined	project to be determined, will save energy if reduces hot water usage (ex. Efficient washing machines)	2 x \$500	additional savings TBD	additional savings TBD	2 x \$2000	additional savings TBD	additional savings TBD
			February Pilot Total	1,468,000	16,590	April Competition Total	4,099,000	42,660

Notes

1. Low flow showerheads save approximately 10 gallons per shower Source: www.epa.gov/watersense
2. Faucet aerators save approximately 1 gallon per minute. Source: www.epa.gov/watersense

3. Source: www.epa.gov/watersense

4. The average American uses 100 gallons of water per day. Source: www.water.usgs.gov/edu. Estimation based on education reducing this by 1% on average

5. Water heating consumes 0.18 kWh per gallon of water heated. Source: www.epa.gov/WaterSense/docs/showerheads_finalsupstat508.pdf