



Energy-Savings and Environmental Impact

INSTRUCTIONS: Click on the first green cell in the Input section and tab to other input cells. The tool calculates energy savings, labor savings and environmental benefits from CFL and Halogen upgrades.

INPUT						
Total Number of sockets		180000		Hrs. burned per day (avg.)		12
A/C on (% of days)		50%		Energy rate (\$ per kWh)		\$0.10
	Current	Proposed		Current	Proposed	
Lamp Description	60par30	48par30/hir+	Lamp Watts	60	48	
Lamp Life (hrs)	3000	4200	Lamp Cost (\$)	\$6.50	\$9.00	
Lamp Replacement \$ (labor)	\$0.00	\$0.00				
OUTPUT						
	Current	Proposed	Savings (\$)			
Average annual lamp purchases (quantity)	262800	187714.2857				
Average annual lamp purchases (\$)	\$1,708,200	\$1,689,429	\$18,771			
Average Annual Lamps Replaced (quantity)	262800	187714.2857				
Average Annual Lamp Replacement labor (\$)	\$0	\$0	\$0			
Annual Lamp Energy Consumption (kWh)	47,304,000	37,843,200				
Annual Lamp Energy Consumption (\$)	\$4,730,400	\$3,784,320				
Annual estimated A/C Savings (kWh)	1608336					
Annual estimated A/C Savings (\$)	\$160,834					
			Total Annual Energy Savings (\$)	\$1,106,914		
Annual energy savings per socket	\$6.15	Total Annual Savings (Lamps + Labor + Energy)		\$1,125,685		
Net Investment Required (Lamps + Labor)		\$1,620,000				
Equivalent Payback		17 months				
ENVIRONMENTAL IMPACT						
Carbon Dioxide emission reduction	17,046,469		(lbs. CO ₂) per year			
Coal Burning Avoided	3,621		(tons) per year avoided			
Equivalent forestation	2,113		acres of forest added			
Equivalent # cars removed from the road	1,486		cars removed from the road			
Numbers based on EPA Energy Star Fact Sheet 2007						
CO ₂ Emission factor	1.54	lb. CO ₂ per kWh generated	CO ₂ sequestration lb.per acre	8066		
CO ₂ released by coal burning	2.14	lb. CO ₂ per lb. of coal burned	CO ₂ emission lb. per car	11,470		

Loeb Electric - National Accounts 888-563-2669

Example only!