

Savings Estimate for ENERGY STAR Certified Light Bulbs



Results Overview

The ENERGY STAR models of your selected light bulbs will save approximately 85%. Each year you will save approximately 272,483 kWh of electricity and \$38,638. Over the life of the light bulbs you will save approximately \$420,932 in electricity costs and \$75,632 in equipment replacement costs. By choosing ENERGY STAR you will reduce emissions by approximately 424,747 pounds of carbon dioxide annually.

Results Detail

	Quantity	Simple payback period for additional initial cost (years)	% Electricity Savings with ENERGY STAR	Annual Total	Life Cycle Total
				Electricity cost savings	Electricity cost savings
General Purpose (Omnidirectional)					
Bulb 1 (9.0 W LED replacing 60 W)	1124	0.2	85%	\$8,901	\$92,492
Bulb 2 (11.0 W LED replacing 75 W)	743	0.1	85%	\$7,383	\$76,725
Bulb 3 (16.0 W LED replacing 100 W)	1032	0.1	84%	\$13,460	\$139,871
Bulb 4 (23.0 W LED replacing 150 W)	42	0.1	85%	\$828	\$8,606
	0				
Flood/Spot Reflector (Directional)					
Bulb 1 (9.0 W LED replacing 50 W)	246	0.1	82%	\$1,566	\$23,161
Bulb 2 (15.0 W LED replacing 90 W)	129	0.1	83%	\$1,502	\$15,611
Candle or Globe (Decorative)					
Bulb 1 (4.0 W LED replacing 40 W)	384	0.1	90%	\$2,146	\$22,305
Bulb 2 (6.0 W LED replacing 40 W)	540	0.3	85%	\$2,851	\$42,161
Total	4,240	0.2	85%	\$38,638	\$420,932

If every American home replaced their 5 most frequently used light fixtures or the bulbs in them with ones that have earned the ENERGY STAR, we would save approximately \$5 billion each year in energy costs, and together we would prevent the greenhouse gases equivalent to the emissions from 6 million cars.

Notes:

Savings for ENERGY STAR lighting includes an avoided cost for replacements because efficient lighting typically lasts longer than conventional lighting. More efficient lighting releases less heat into the surroundings, so upgrading to ENERGY STAR lighting may also have an impact on your heating and cooling costs. Total additional purchase price is the incremental cost for ENERGY STAR equipment reduced by any rebate/incentive amount entered on Inputs tab. Life cycle cost savings are given in terms of present value based on a real discount rate of 4%. See General Assumptions tab to adjust the discount rate. Life cycle net cost savings = life cycle electricity cost savings + avoided replacement cost - additional purchase price. Simple payback calculation is based on total additional purchase price, annual electricity cost savings and annual bulb replacement costs. This calculator was developed by U.S. EPA and DOE to estimate the energy consumption and operating costs of light bulbs and the savings with ENERGY STAR. New ENERGY STAR certified light bulbs are compared to the average available new conventional light bulbs. Actual savings may vary based on use and other factors. See www.energystar.gov for information on other ENERGY STAR products.