

ENERGY STAR CERTIFIED BULBS

To get the most bang for your buck, invest in ENERGY STAR certified light bulbs. Products bearing the ENERGY STAR certification have met strict energy efficiency guidelines and have several benefits. On average, an ENERGY STAR certified bulb uses 70 to 90 percent less energy than an incandescent and lasts up to 25 times longer. Over its lifetime, a single bulb could save you \$30 to \$80 in electricity costs. ENERGY STAR certified bulbs are also safer to operate since they produce 70 to 90 percent less heat and can cut home cooling energy costs.

MERCURY & CFLs

Mercury is essential to CFLs. Without it, CFLs wouldn't be efficient light sources. The amount of mercury sealed within the glass tubing of a CFL is around 4 milligrams – roughly equal to an amount that would cover the tip of a ball-point pen. By comparison, older thermometers contain about 500 milligrams of mercury.

CFLs are safe to use despite the mercury they contain. No mercury is released when the bulbs are intact or in use, but mercury vapor can be released if a bulb breaks.

A Guide to Making Smart Lighting Choices

CONSIDER THE SAVINGS OF CFLs & LEDs

	60W Incandescent Bulb	14W CFL Bulb	9.5W LED Bulb
Cost to Operate	High	Low	Lowest
Cost of bulb	\$1.50-\$2.50	\$1.50-\$3	\$2-\$5.50
Actual Wattage	60W	13W	9.5W
Lumens per Watt (LPW)	13.67 LPW	64.62 LPW	85.79 LPW
Typical Life	1 yr	6-10 yrs	15-20 yrs
Annual Energy Cost*	\$7.23	\$1.57	\$1.08
Cost - Year 1	\$9.73	\$4.57	\$6.58
Total Cost* (over 20 yrs.)	\$194.60 (20 bulbs + energy)	\$32.40 (3 bulbs + energy)	\$27.10 (1 bulb + energy)

* Based on 3 hrs/day, \$0.11/kWh.. Cost depends on rates and use.

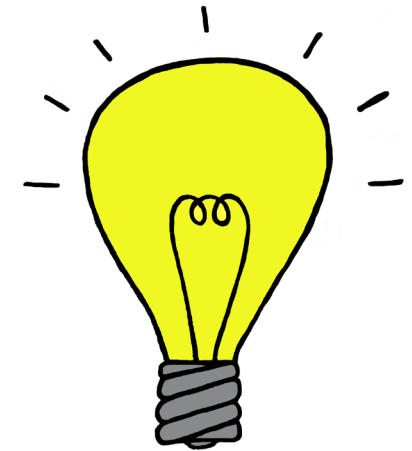
The changes you make in your lighting choices will not only lower utility bills but will also benefit a changing planet. If every home in America replaced just one incandescent bulb with an ENERGY STAR qualified CFL or LED, we would save enough energy every year to light 3 million homes and prevent greenhouse gas emissions equivalent to those from about 800,000 cars.

CLEANING UP A BROKEN CFL BULB

If a CFL breaks in your home, follow these steps:

- Step 1: Open nearby windows.
- Step 2: Proceed to carefully and thoroughly sweep up the fragments using stiff paper or cardboard. DO NOT use your hands.
- Step 3: Use a sticky tape, such as duct tape, to pick up any remaining small glass fragments and powder. DO NOT use a vacuum.
- Step 4: When you've gotten all the small fragments of glass, place the used tape and all other clean up materials in a sealable container.
- Step 5: Allow the room where the bulb was broken to air out as much as possible.
- Step 6: Check with your local government about disposal requirements to learn if your area requires fluorescent bulbs (broken and unbroken) to be taken to a local recycling center. If you find that your area has no requirements, you can dispose of the materials in your household trash.

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COMPARING WATTS TO LUMENS

Watts measure the energy a lightbulb uses to create light. Lumens describe the light output or brightness of a lightbulb.

lumens = brightness
watts = energy

When you switch from inefficient incandescent lightbulbs to LEDs or CFLs, keep in mind that newer styles of bulbs are more efficient. This means that you can achieve the same amount of light (lumens) while using less energy (watts). To save energy and find the best fit for you, find bulbs with the lumen level that you need and then choose the bulb with the lowest wattage. You can also look for an ENERGY STAR-certified bulb that is equivalent to the standard bulb you're replacing. The label may say something like "60 watt replacement."

If you're not sure what lumen level you are looking for, use this guide to get you started:

How Much Light Do I Need?

Incandescent Bulb (watts)	ENERGY STAR Bulb Brightness (minimum lumens)
40	450
60	800
75	1,100
100	1,600
150	2,600

BENEFITS OF CFL LIGHTING

1. ENERGY EFFICIENCY
CFL lightbulbs produce the same amount of light as incandescent bulbs while using about 75 percent less energy. These bulbs also last up to 10 times longer.

2. SAVE MONEY
CFL lightbulbs are a reasonably priced alternative to incandescent bulbs. A 75-watt incandescent can be replaced by any CFL bulb with a lumen level around 1,100. To save the most money, select the bulb with the lowest wattage at that lumen level.

3. ENVIRONMENTALLY FRIENDLY
CFLs contain a tiny bit of mercury, but they are still a better option than inefficient bulbs. In the U.S., electricity production at coal-burning power plants is one of the largest contributors to man-made mercury emissions. Because CFLs use less energy and last longer than incandescent bulbs, they actually reduce greenhouse gases and landfill waste while still saving you money.

For more information on CFLs and mercury, flip to the back of this brochure.

KEEP IN MIND...

CFLs can fit into many fixtures, but there are instances when CFLs may not be the best choice. For instance, while CFLs are good options in open fixtures, using a CFL bulb in an enclosed fixture isn't ideal because these lightbulbs are sensitive to extreme temperature. When selecting energy efficient lightbulbs, always carefully read the label to ensure you're selecting a bulb that is appropriate for your specific situation.

BENEFITS OF LED LIGHTING

1. ENERGY EFFICIENCY
LED lights use 70 to 90 percent less energy than incandescent bulbs to produce the same amount of light. While incandescent bulbs release 90 percent of energy as heat, LEDs emit very little heat, helping eliminate some costs associated with home cooling.

2. QUALITY DESIGN
LEDs were designed with quality in mind. These bulbs, made of epoxy lenses instead of glass, are more durable than incandescent bulbs and can last up to 25 times longer. Resistant to extreme temperature and available in a variety of shapes and sizes, LEDs are one of the most versatile lighting options on the market.

3. SAFETY
LED lighting contains no mercury and are more difficult to break than other bulbs. They're also shock-resistant and operate at lower temperatures than incandescent and fluorescent lighting. This makes LED lights safer to touch. LEDs also produce little infrared light and close to no UV light making them safe to use on sensitive objects such as artifacts in museums.

4. AESTHETICS
LEDs brighten instantly when turned on. Designed to focus light in a specific direction, they can also be combined to produce highly efficient illumination and individually dimmed to achieve dynamic lighting effects, not only for the eyes but also for the mood and mind.

5. ENVIRONMENTALLY FRIENDLY
LED bulbs are 100 percent recyclable. By using much less energy and lasting longer than other bulbs, they also help eliminate greenhouse gas emissions and landfill waste.