



# Energy efficient lighting for your home

## FACT SHEET

The familiar pear-shaped incandescent light bulb has been with us for more than 100 years. Yet these bulbs are very inefficient, producing far more heat than light and wasting electricity in the process. ENERGY STAR® qualified compact fluorescent light bulbs (CFLs) save both energy and money while providing safe, quality light for your home.

By replacing the 10 incandescent light bulbs you use most with ENERGY STAR qualified CFLs, you can save more than \$50 each year!

### CFL FACTS AND BENEFITS

Today's CFLs incorporate the best features of fluorescents—high efficiency and long life—and produce steady, quiet, warm white light. In addition, CFLs come in a variety of shapes and sizes to fit different fixtures throughout your home.

#### CFLs offer many benefits, including:

- **Longer life.** Most CFLs last 6 to 10 years compared to about one year for incandescent bulbs. This saves you both time and money on replacement bulbs, and reduces waste.
- **Lower energy costs.** Compared to incandescent bulbs, CFLs use about 75 percent less energy to produce the same amount of light. Because the average home spends about 20 percent of its electricity costs on lighting, this can result in significant savings.
- **Cooler operation.** CFLs burn cooler, producing about 75 percent less heat so they're safer to operate and can cut energy costs associated with home cooling.

According to the U.S. Environmental Protection Agency (EPA), if every home in the U.S. replaced just one incandescent light bulb with an ENERGY STAR qualified CFL, we would save enough energy to light more than three million homes and prevent greenhouse gas

CFL SAVINGS		
INCANDESCENT BULB	COMPACT FLUORESCENT BULB (approximate equivalent wattage)	LIFETIME SAVINGS
40 watt	9–11 watt	\$25–\$30
60 watt	13–17 watt	\$40–\$45
75 watt	18–20 watt	\$50–\$55
100 watt	23–26 watt	\$70–\$75
150 watt	32–42 watt	\$105–\$115

Based on 8,000-hour bulb lifetime at \$0.12 per kWh.

emissions (which contribute to global climate change) equivalent to those of more than 800,000 cars annually.

### INSTALLATION TIPS

- Always install or remove a CFL by grasping the plastic base—never the glass tubing.
- CFLs can be used base up, down or sideways unless otherwise marked on the plastic base or packaging.
- Properly enclosed fixtures are required for outdoor CFL use; some bulbs are not designed to be used where exposed to weather.
- Select dimmable CFL bulbs for use with dimmer switches. Regular CFLs are not suitable for use with dimmer switches.
- Regular CFLs can be installed in fixtures with three-way switches, but no change in brightness occurs between positions. Note that three-way CFLs are available that operate like an incandescent three-way bulb.

Most CFLs last 6 to 10 years. If a bulb burns out within the warranty period, look at the CFL base to find the manufacturer's name. Manufacturers producing ENERGY STAR qualified CFLs are required to offer at least a two-year limited warranty (covering manufacturer defects) for residential applications. Contact the manufacturer to find out their warranty terms.

866.432.8947 [www.homeenergyplus.wi.gov](http://www.homeenergyplus.wi.gov)

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To find retailers near you that sell ENERGY STAR qualified CFLs, you can call 866.432.8947 or visit [www.focusonenergy.com/findaretailer](http://www.focusonenergy.com/findaretailer). You can also visit the national ENERGY STAR program Web site [energystar.gov](http://energystar.gov).

### CFL TORCHIERES

Compact fluorescent torchieres are now available to replace the Halogen pole lamps that were popular in the 1990s. These energy efficient lamps use CFLs that deliver more light than Halogen bulbs and burn much cooler. Halogen torchieres are expensive to operate and dangerous to use. Halogen bulbs get extremely hot and can pose a hazard for children and pets, and have caused fires when flammable materials such as curtains and drapes have come in contact with the bulb.



### Brighten the holidays with LED lighting

LEDs (light-emitting diodes) are the “next big thing” in energy efficient lighting, and holiday lights are one of their first uses in the home. This microchip-based technology offers many benefits, including:

- **Longer life.** LEDs last up to 10 times longer than filament miniature bulbs.
- **Convenience.** If one LED lamp burns out, the rest of the string stays lit so you can find and replace the bulb easily.
- **Safety.** LEDs produce almost no heat, increasing safety and reducing the risk of fire. These bulbs won't break because the casing is solid plastic.
- **Greater efficiency.** LEDs use up to 90 percent less energy than incandescent bulbs.

### MERCURY AND CFLs

The increasing popularity of CFLs has prompted some to question the mercury content of the bulbs and its effect on the environment. While CFLs contain small amounts of mercury, they are safe in normal use.

The largest source of mercury in our air comes from burning coal to produce electricity. Because CFLs require significantly less electricity than incandescent bulbs, they result in a reduction of mercury in the environment.

### PROPER DISPOSAL

EPA recommends that consumers take advantage of local recycling options, such as retailers and recycling centers, to dispose of CFLs. Call 866.432.8947 or visit [www.focusonenergy.com/findaretailer](http://www.focusonenergy.com/findaretailer) for a listing of retailers who recycle CFLs.

### CLEANUP OF BROKEN CFLs

If a CFL breaks, take care in cleaning up. Even though the amount of mercury is very small, EPA recommends the following steps:

- Open nearby windows to disperse any vapors and leave the room for 15 minutes.
- Carefully scoop up the fragments and powder with stiff paper or cardboard and seal them in a plastic bag.
- Wipe the area clean with damp paper towels and place them in the plastic bag.
- Do not use a vacuum or broom to clean up the broken bulb on hard surfaces.
- Place all cleanup materials in a sealed plastic bag.
- Place the bag in a second sealed plastic bag and place it in an outdoor trash container. Note: Some states require broken and unbroken CFLs be taken to a recycling center.
- Wash your hands after disposing of the bag.

If a fluorescent bulb breaks on a rug or carpet, do your best to remove all visible materials using the steps above. Use sticky tape such as duct tape to help you pick up the small pieces and powder. If you need to vacuum after all visible materials have been removed, remove the vacuum bag (or empty and wipe the canister) and place the bag or vacuum debris in two sealed plastic bags and dispose of at your local recycling center.

Home Energy Plus is administered by the Wisconsin Department of Administration—Division of Energy Services through a network of county agencies, tribal governments, community-based organizations and utilities. Home Energy Plus consists of the Wisconsin Home Energy Assistance program, which provides heating and electric assistance to eligible households, and the Weatherization Assistance program, which offers energy efficiency improvements to help eligible customers save energy and money.

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