

## Energy-Efficient Home Lighting

Lighting accounts for only about 3% of your annual electric bill, but you can still save money with energy-efficient home lighting. Besides costs, your choice of lighting also affects the comfort, security and convenience of your home.

The most common types of household lights are fluorescent and incandescent. Fluorescent lights are more energy efficient and last much longer than incandescent lights. Modern technology offers a wider range of choices in fluorescent lights compared to just a few years ago.

### Modern Fluorescent Lights Provide Efficiency and Choice

Fluorescent lights are available in a wide range of types, sizes and color. These multi-purpose lights include:

- Standard tube fluorescent.
- Compact fluorescent, which fit into a standard lamp.
- Circline fluorescent, which are circular in shape.
- Fluorescent reflector floodlights and spotlights.

Modern fluorescent lighting offers the following features and benefits:

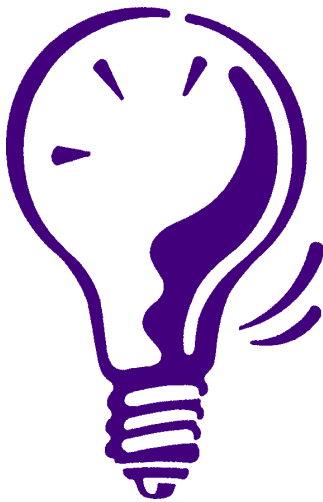
- One of the most energy efficient type of light available.
- Lasts up to 10 times longer than standard bulbs, saving you money in the long run, even considering the higher initial cost of fluorescent lights.
- Replaces an incandescent bulb that is three to four times the wattage with the same light level.
- Saves up to 75% on the lighting portion of your electric bill.
- Can produce the same warm color associated with incandescent lights.
- Used for both ambient and task lighting.
- Designed to be used in areas where lights are normally left on for several hours at a time.
- Available in compact sizes, however, you need to make sure that the lights will fit the lamp or fixture where you intend to use them.



## Incandescent Lights – The Most Common Home Light Source

Incandescent lights are the most common home light source and are the least expensive to buy, but the most expensive to operate. Consider the following about incandescent lights:

- Use three to four times more energy to produce the same amount of light as a fluorescent lamp.
- Last only one-tenth the life compared to fluorescent lamps.
- Use 15% of energy for light while 85% of the energy becomes heat, causing higher summer cooling costs.



Types of incandescent lights include:

- **Standard incandescent** – These are the most common light source, and are also the least efficient and most expensive to operate.
- **Reduced-wattage incandescent** – These lights produce about the same light output but consume less energy than standard bulbs.
- **Tungsten-halogen incandescent** – These lights also achieve better energy-efficiency than standard incandescents, but are more expensive than standard lamps. They produce a whiter, more intense light and are typically used for decorative or accent lighting.
- **Reflector spotlights and floodlights** – Reflector lamps, used for down lighting, wall washing and accent lighting, have similar efficiencies and color properties as standard incandescent lights.

## Increase Efficiency with Simple Steps

To save on energy used to light your home, consider using more efficient lights and reducing the amount of time the lights are left on.

- Replace incandescent fixtures with fluorescent lamps, when possible.
- Use lower wattage bulbs. Try using a 60-watt bulb where you now use a 100-watt.
- Install dimmer switches on incandescent light fixtures.
- Clean light fixtures to assure light levels are maintained.
- Keep background lighting low and use task lights near workplaces.
- Turn lights off when not needed. (Note: Turn off fluorescent lights only if they will not be used for at least 10 minutes.)
- Put lights on a timer or photo cell so they turn off automatically.
- Use motion sensors in areas where you only need light when people are in the area.



## If You Are Building a New Home...

If you are building a new home, consider using a new generation of fixtures that use a dedicated compact fluorescent lamp. Many new homes use incandescent downlights and spotlights for accent and ambient lighting, but these compact fluorescent fixtures can achieve the same light quality at a savings of almost 75% on the lighting portion of your electric bill.

Popular recessed ceiling lights can cause air to leak from attic spaces, increasing heating and cooling costs. Ask your builder or electrician about recessed fixtures that minimize air leakage or other alternatives such as track lighting or wall wash fixtures.



## How Much Can You Save on Your Energy Bill with Energy-Efficient Lighting?

Here are examples of how the energy costs of using fluorescent lights can save you money compared to using standard incandescent lights. Calculations are based on the APS Standard Plan and assume lights are on for three hours per day.

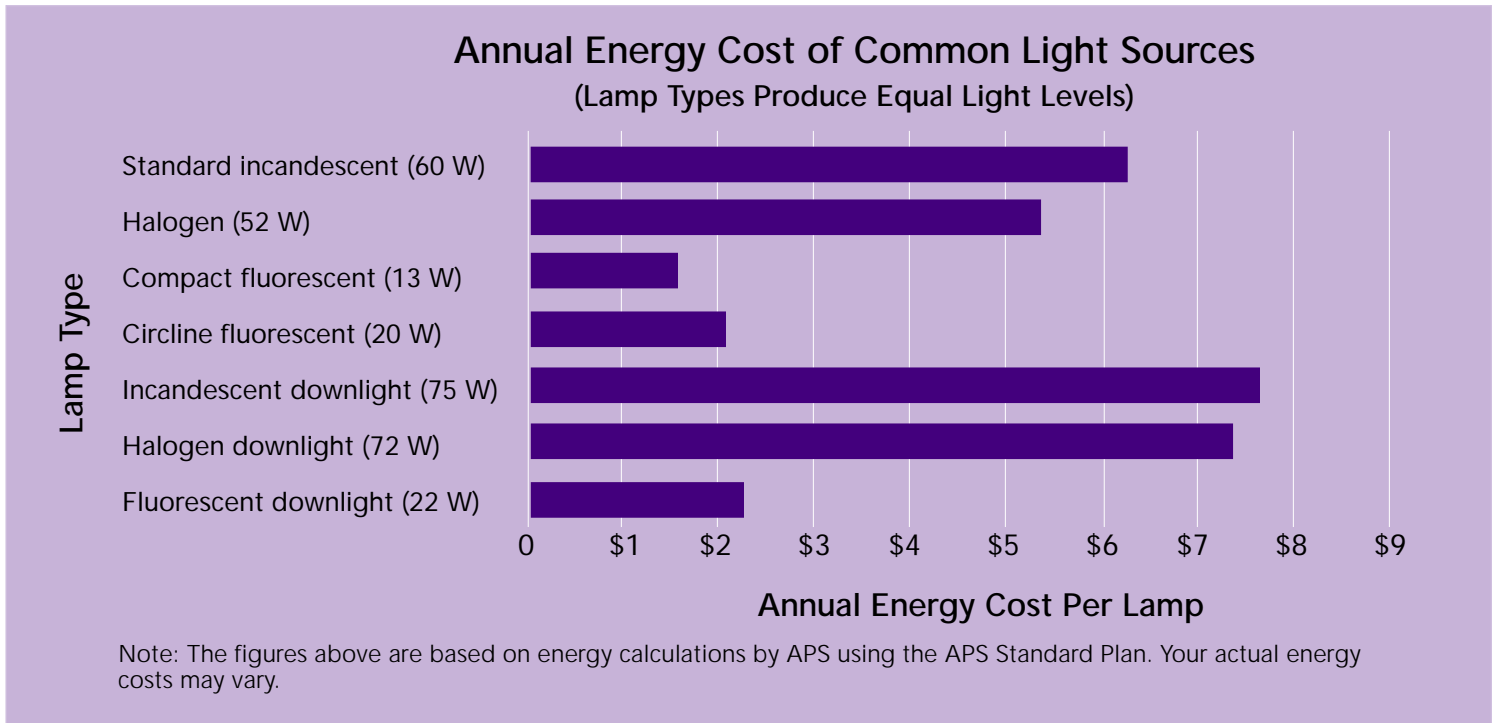
Five, 60-watt incandescent lamps	=	\$31 annually
Five, compact fluorescent lamps with same light output	=	\$ 8 annually

**Savings = 75%**

Ten, 75-watt incandescent downlights	=	\$77 annually
Ten equivalent fluorescent downlights	=	\$23 annually

**Savings = 70%**

The chart below compares the annual energy cost of different light sources. These figures assume that lights are on for an average of three hours per day.



### For More Information Call the APS Energy Answer Line

For more information on saving energy in your home, call the **APS Energy Answer Line in Phoenix at (602) 371-3636 or toll-free 1 (888) 890-9730**. Or visit our web site at [www.apsc.com](http://www.apsc.com).