

## Tips for whole house lighting savings

- Do the natural thing. Natural light can be enhanced through use of lighter paint colors, attention to window coverings and, if you are building, placement of glass areas.
- Light your task area...and reduce ambient light levels. If you don't need all that light...focus it where you do need it.
- Replace as many incandescent bulbs in your home with compact fluorescent bulbs as you can. It's the best way to save lighting energy.
- Outdoors, where possible, utilize solar-powered accent lights. No electricity at all. Just free, solar energy.

## More information? Ask the Energy Experts

Visit PGE's Energy Experts for more answers to lighting questions. Just call toll-free at 1-800-722-9287 or visit online at [PortlandGeneral.com/ee](http://PortlandGeneral.com/ee).



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# Whole house lighting guide

Smart lighting adds up to energy and dollar savings.

**Portland General Electric**

Probably the fastest way to energy and dollar savings around the home is to increase your home's overall lighting efficiency.

Replace 25% of your lights in high-use areas with compact fluorescent bulbs and you can save about 50% of your lighting energy use.\*

## Look at your *whole* house

Lighting accounts for 5-10% of the total electricity used in the average PGE home. While not as much as space or water heating improvements, the savings potential for energy and money is still high.

The key is to understand all of the various ways you use lighting around the home...the types of lamps or bulbs available...and how you control that light for maximum value.

Energy savings generated by switching one incandescent bulb to an equivalent output compact fluorescent bulb.

## Cumulative savings by

Replace 75-watt incandescent with 20 watt CFL

Savings after 1 Year 2 Years 3 Years After 5 Years After 10 Years

	1 Year	2 Years	3 Years	After 5 Years	After 10 Years
Lights on 2 hrs/day	\$2	\$4	\$6	\$10	\$20
Lights on 4 hrs/day	\$4	\$8	\$12	\$20	
Lights on 8 hrs/day	\$9	\$18	\$27		
Lights on 12 hrs/day	\$14	\$28			

\*Energy savings generated by switching one incandescent bulb to an equivalent output compact fluorescent bulb. Savings are estimates only and will vary.

## How to choose the right CFL

Light output is measured in "lumens." Because incandescent lamps have for decades been the only choice, consumers have become accustomed to buying bulbs not on the basis of their light output, but their "wattage."

CFL bulbs produce high light output for less wattage. As a result, when shopping for CFLs the most important measure to look for is lumens... not watts.

A simple rule of thumb when shopping: If you want to replace a 100 watt bulb with a comparable light output CFL, divide the incandescent wattage rating by 4. That will yield a number fairly close to the wattage size you need in a CFL. For example, a 100 watt incandescent is comparable to a 25 watt CFL.

If you buy a 25 watt CFL, pick the highest lumens. Once you've got the right size bulb, make sure its designed for indoor and outdoor use. Outdoor CFL bulbs are made especially for enclosed fixtures and the outside environment.

## Torchiere lamps

Popular halogen lamp torchiere-style lamp fixtures are also being transformed by compact fluorescent technology.

Halogen torchiere lamp fixtures, while inexpensive, are energy hogs. More importantly, they have come under close scrutiny from a safety perspective because they produce extremely hot temperatures. Their high heat output (1,000 degrees) can add extra heat to your home in summer months.

Torchieres are now available with cool-burning, highly energy efficient CFL lamps.

## Shopping List for Bulbs

LOCATION

Number of incandescent bulbs 25 WATT 60 WATT 75 WATT 100 WATT SPECIAL NEEDS\*

LOCATION	25 WATT	60 WATT	75 WATT	100 WATT	SPECIAL NEEDS*
Living Room					
Hallways					
Bathroom(s)					
Porch					
Garage					
Bedroom(s)					
Totals:					

\*Special needs refers to CFL bulbs for use on circuits with dimmers and in outside locations. CFL's will not work on circuits with dimmers unless the bulb is designed for that purpose. In addition, it is not recommended indoor CFL bulbs be used outside. Carefully check manufacturer specifications on the bulb box before purchasing.

## CFLs lighter on environment

CFLs contribute to a cleaner environment. For example, a CFL comparable to a 75 watt incandescent bulb will save about 570 kilowatt hours over its life. To generate that much electricity at a typical coal-fired steam electric plant would require about 500 lbs. of coal, that would emit 1300 pounds of carbon dioxide and 20 pounds of sulfur dioxide.

Proper disposal of CFLs is recommended.

## Making the most of your lighting

Besides the advent of new lighting technology like CFLs, control systems used appropriately can pay off in lower energy bills.

Rule one remains the same: *If it's not in use, turn it off.* Even if you just step out for a moment, turn it off.

Helpful control devices include:

- Occupancy sensors: By sensing heat or motion, these switches automatically turn on and off the lights depending on activity levels.
- Motion sensing controls for outdoor lights are available at any hardware store.