

Compact Fluorescent Light Globes (CFL) Fact Sheet



Lighting represents around 12% of Australia's domestic greenhouse gas emissions. It therefore deserves our full attention.

How does a compact fluorescent light bulb work?

Like all fluorescent lights, CFLs contain a gas that produces invisible ultraviolet light (UV) when excited by electricity. The UV light, in turn, hits a coating inside the fluorescent bulb. This 'excited' coating then emits visible light.

Standard lights (incandescents or GPLs) create light by heating a filament until it glows white hot. Most of the energy input ends up wasted as heat. Because CFLs don't use heat to create light, they are far more energy-efficient than regular bulbs.

	CFL	Incandescent
Heat Output	~10%	~90%

How much energy can be saved?

Depending on the wattage you choose to replace your existing light with, between 60% - 85% savings can be expected. The energy saving also translates into lower bills. The size of the CFL you choose to replace your light will depend on the output of the CFL. As a guide, 13~15W CFLs replace 60W standard globes,

15~18W replace 75W globes, and 20~23W replace 100W standard globes. You will need slightly higher wattages for frosted or enclosed style CFLs.

OSRAM provide a handy calculator at www.osram.com.au/service/cfl/cfl.html

Is it true that CFLs contain mercury? Why and how much?

CFLs contain a very small amount of mercury sealed within the glass tubing - an average of 5 milligrams (roughly equivalent to the tip of a ball-point pen). Some incandescent lights also contain mercury products, as do fluorescent tubes.

Mercury is essential to the operation of CFLs and is what allows the bulb to be an efficient light source. CFLs contain approximately 1/100th of the mercury in thermometers. According to the US EPA, a power plant will emit 10mg of mercury to produce the electricity to run a standard bulb compared to only 2.4mg of mercury to run a CFL for the same time.

More information

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