

FACT SHEET:

FAST FACTS ON ENERGY EFFICIENT LIGHTING

YOU HAVE
THE POWER.
SAVE ENERGY.

WHY LIGHTING MATTERS

One third of Victoria's energy is used in the home with about 9 per cent of household greenhouse gas emissions attributable to lighting.

Electricity for lighting costs households about \$100 every year and generates around 20,000 black balloons of greenhouse gas.

The Victorian Government's energy savings campaign, **You have the power. Save energy**, is encouraging Victorians to select and install compact fluorescent globes wherever possible, in place of conventional incandescent globes.

If every Victorian household replaced just one conventional globe with an energy efficient compact fluorescent globe, the savings would be more than 6 billion balloons of greenhouse gas a year.

COMPACT FLUORESCENT V INCANDESCENT GLOBES

Incandescent globes were the first form of electric lighting ever introduced for use in the home.

Compact fluorescent lightbulbs (CFL) use far more efficient lighting technology, with a typical CFL using around 80 per cent less electricity

and lasting around 8 times longer than an incandescent light globe.

Energy consumption is directly proportional to a globe's wattage. Energy efficient compact fluorescent bulbs generally use between 9 and 20 watts, while incandescent globes commonly used around the home typically use between 40 and 100 watts.

The cost of running a light is directly related to its wattage. The higher the wattage, the higher the running cost.

Even though compact fluorescent lamps are more expensive than incandescent globes to purchase, as they last far longer and have much lower running costs their overall "lifecycle" costs are much cheaper. In fact, the "payback" for compact fluorescents is less than a year.

EXAMPLE OF RUNNING COSTS FOR INCANDESCENT AND COMPACT FLUORESCENT LIGHTBULBS:

	POWER	APPROXIMATE BALLOONS OF GREENHOUSE GAS	PURCHASE PRICE	EXPECTED OPERATING HOURS	ELECTRICITY RUNNING COSTS PER YEAR (APPROXIMATE)
 INCANDESCENT	75 Watt	 3,600	\$1.00–\$1.20	1000–2000 Hours	\$12.30
 FLUORESCENT	15 Watt (75 watt equivalent)	 730	\$4.00–\$10.00 (cheaper if buying a pack of 2 or 3 lights)	Around 8,000 Hours	\$2.30

* The above prices and running costs are indicative only. Based on 5 hours of use per day, each year assuming an electricity price of 15 cents a kilowatt hour.

FOR FURTHER INFORMATION ABOUT HOW YOU CAN
SAVE GREENHOUSE GAS, ENERGY AND MONEY
telephone 1300 363 744 or visit www.SaveEnergy.vic.gov.au

A Victorian
Government
initiative



AVAILABILITY, QUALITY AND INSTALLATION

Compact fluorescent lighting now comes in a variety of colours, shapes, sizes and functions including:

- A 'warm white' colour, similar in appearance to an incandescent light globe suitable for use in living areas, kitchens and bedrooms
- A 'cool' white colour suitable for use in bathrooms, toilets and for outdoor use
- Globe, coil and spiral shapes, and now bulbs suitable for reading lamps and chandelier lights. Also available with a glass cover that give them a similar appearance to incandescent light globes
- 9 watt (24 watt equivalent) to 18–20 watt (100 watt equivalent)
- Downlight replacements (similar in shape to a halogen downlight).

Compact fluorescent light bulbs are generally available wherever conventional light bulbs are sold, with most hardware stores and major supermarkets stocking a good range. They are usually designed to fit into conventional bayonet or screw fitting light sockets. Specialist lighting stores will stock less conventional bulbs for use in downlights and heritage light fixtures, such as chandeliers.

PHASING OUT INCANDESCENT LIGHT BULBS

The Victorian Government supports the Federal Government's plan to phase out inefficient incandescent light bulbs over the next three years (by 2010).

WHAT ABOUT HALOGEN LIGHTING?

Halogen lights are also a type of incandescent light. These are mainly used as downlights in homes. Halogens are also known as "low voltage" lights as they have transformers fitted to convert from the standard household 240 volts to 12 volts, but this does not mean that they are also low energy use.

Halogens are considered an energy intensive lighting option because several halogen lights are often needed in the place of one incandescent or fluorescent light bulb to achieve even lighting levels in a room. (Most low voltage halogen globes used as downlights consume 50 watts each and an additional 15 watts for the transformer).

A 50W halogen downlight used 3 hours a day will cost around \$10 a year to run. If you had a room with 8 halogens and ran them for 8 hours each day, it would cost you over \$200 every year!

As most halogen lights have a narrow light beam, many more are needed to effectively light a room than when using other forms of lighting.

As with incandescent light globes, a large proportion of the energy consumed by halogen lighting is actually lost in the form of heat.

OPTIONS FOR HALOGEN LIGHTS

- In a new home or renovation you can get the look of downlights by installing mini CFL down light fittings. This will cost a bit more, but you will make a big difference to your energy bills and greenhouse gas emissions.
- If you have 50 watt halogen lights downsize them to 20 watt or 35 watt halogen lights to save energy and lighting bills.
- Install a dimmer switch.
- Instead of halogen light consider alternatives such as floor and bench lamps fitted with CFLs.
- If replacing low voltage halogen lights, an electrician will be needed to convert the lights.
- An emerging technology is LED downlights (LED downlights retail between \$30 and \$100 each but last up to 50,000 hours). They are currently available from specialist environment stores and online retailers. While they are currently quite expensive and the light output and quality may be less than halogen downlights, performance and price is improving all the time.

LIGHTING TIPS

- Natural light is free and the most energy efficient lighting source
- Turn lights off when you don't need them.
- Replace standard incandescent globes with energy-saving compact fluorescent globes, particularly in high-use areas, and make sure you use the lowest wattage light needed.
- Use programmable timers, daylight sensors or movement sensors to control outdoor and security lighting.
- For outdoor garden lighting, try solar-powered lights.

For more information visit:

www.SaveEnergy.vic.gov.au or call Sustainability Victoria on 1300 363 744