



## Energy Efficient Lighting

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## Energy Efficient Lighting

Lighting accounts for up to 7% of energy used in the home and over 10% of household greenhouse gas emissions. Simple actions like replacing light globes will greatly reduce energy costs and greenhouse gas emissions.

Traditional incandescent globes, that have high energy use, are being phased out following the introduction of minimum energy performance standards (MEPS) for light globes. Lighting technology has improved significantly and there are now many options for energy efficient lighting.

## CFLs

Compact Fluorescent Lamps, or CFLs, use less than a quarter of the energy of incandescent globes and can last up to 8 times longer. CFLs provide just as much light as incandescent globes and are available in a range of hues to suit your needs, including warm white, natural mid-tones and cool white.

CFLs can replace most standard globes and are easy to install. Just check the wattage of your existing incandescent globe and replace it with the correct low wattage CFL.

Incandescent	CFL Replacement
40 W	9 – 13W
60 W	13-15 W
100W	23-30 W

## Safe disposal

Care needs to be taken when handling and disposing of CFLs. All CFLs contain some mercury (the amount is about the size of the ink on the tip of a ballpoint pen, less than that contained in your watch battery), and this is decreasing with new technology.

CFL globes can be recycled, however, because of their mercury content, need to be recycled separately to other items. You can drop your old CFLs at Mindarie Regional Council recycling centres. For more information visit: [www.mrc.wa.gov.au](http://www.mrc.wa.gov.au)

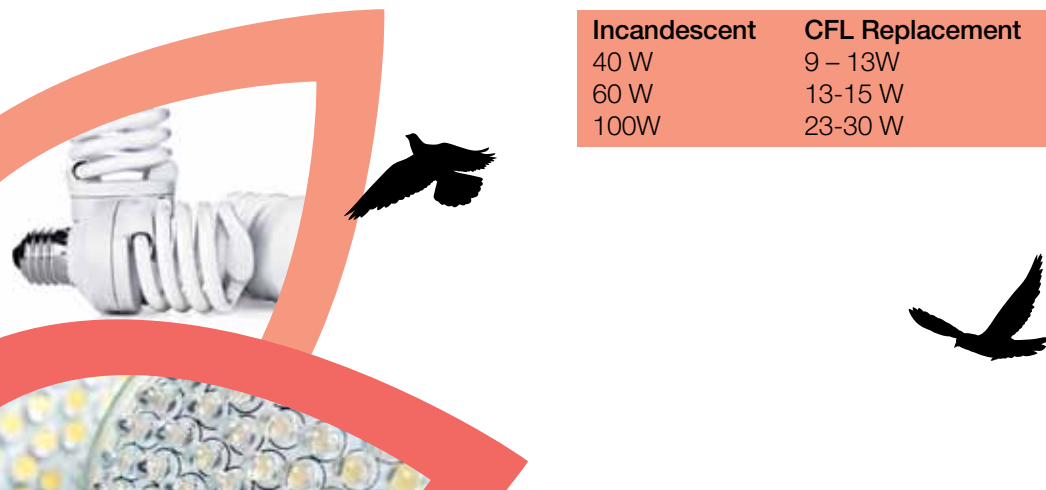
## LEDs

Light emitting diodes, or LEDs, are emerging as an energy efficient solution to halogen downlights. LEDs are more expensive, however use 90% less energy than halogen lamps and can last up to 50,000 hours.

Halogen downlights are a type of incandescent light designed for 'task' lighting only (bench-tops or pictures), rather than room lighting. They are low voltage because they have transformers that convert them from the standard household 240 volts to 12 volts; however this does not make them more energy efficient. A large proportion of the energy used by halogen downlights is lost in the form of heat.

## Lighting tips

Remember that the most energy efficient and cost effective option is natural light. Make the most of natural light in your home and only turn on the lights when needed. Turn lights off when you leave a room. Consider solar lights for your outdoor garden lighting and use programmable timers and sensors to control outdoor and security lighting.



CFL light colour	Description	Technical Measure	Suitable for
Warm white	Similar 'yellow' light to old incandescent globes	≤ 3000K	Bedrooms Standard lamps Lounge room
Mid tones	Bright natural light	3500K	Dining Room Hallway Kitchen
Cool daylight	Bright white light with a hint of blue	4000K	Lighting art works Outdoor security lights

Current halogen downlight	Replacement	Cost	Available from
240 volt downlight lamps (GU10 type globes)	11 watt CFL	\$5 - \$25	Hardware stores Online
12 volt downlights (MR16 type globes) with 50 watt lamp	20 watt infrared coated (IRC) globe	\$10 - \$40	Hardware stores
12 volt systems with 50 watt and 20 watt lamps*	3 watt LED	\$35 - \$45	Lighting stores

\* A licensed electrician should install all electrical fittings.