



10. Efficient lighting and improving natural light

Switching off lights when you're not using them and changing to energy efficient light bulbs will make a big difference to your bill. Removing unnecessary artificial lights and finding ways to introduce more natural light also helps to save energy

Lighting options

Replacing incandescent lights

Incandescent bulbs are now banned from sale and distribution due to their high energy consumption. You should replace pear-shaped incandescent lights with compact florescent lights (CFL) or even better, with light emitting diodes (LEDs) – these can reduce energy use by 75% and 90% respectively. They both also last much longer.

LEDs can last 10 times longer than traditional lighting. They are more expensive than halogen or compact fluoro light bulbs, but the money you spend buying them is recovered in less than 2 years, and even less if the lighting is used often.

Replacing tube lighting

Replace long tube or circular tube fluors (traditionally called 'T8s') with more efficient T5 batons or use LED strips. Talk to a lighting supplier for the most effective and efficient option. You may also need to adjust the ballast and/or the driver and possibly the entire fitting.

Where you have two older T8 fluors in the same fitting, either leave or replace one of them with a more efficient baton, and completely remove the second – leaving one fluoro in place. Combining

the remaining baton with a reflective strip improves its light output enough for most lighting needs and uses only half the energy.

Replacing halogen downlights

Replace halogen downlights with good quality LEDs as halogens are energy hungry and produce much more heat than light. If the existing halogens are 12 volt with a transformer above the ceiling, your electrician may need to perform this changeover.

Removing lights

Assess how many lights you actually need in a room. You may be in a position to take a few bulbs out. Place some tape over unnecessary light switches.

Illuminate specific work areas with table or floor lamps with LED bulbs in them.



Replacing energy saving globes

When you are replacing bulbs, take note of whether they are warm, cool or daylight types and if they are bayonet or screw in. Most people prefer warm light or daylight for general use. Cool may be necessary however for specific tasks such as cooking.

Improving natural light

Improve natural lighting by cleaning windows and drawing back or replacing curtains and blinds. In some situations, installing a skylight or solar 'sky tubes' that bounce light from above or some distance away, can be a good option.

Solar powered kits

Solar powered kits act like skylights (typically using LED strips indoors). They are powered by a small solar panel on the roof, with the indoor section spreading light into a room whilst the sun is shining.

Well-placed windows

Consider installing a well-placed window. Consider cutting back vegetation that might be blocking natural light. Balance this with the need for summer shade.

Other things to consider

Sensors and timers

Auto sensors and timers, particularly on outdoor lights, in bathrooms/toilets and in common areas, can switch lights off automatically. A few solar path lights can reduce the need for outdoor lighting.

Signage

Use signs to remind people to switch lights and appliances off.

Cleaning up and disposal

Fluorescent lamps including CFLs contain

small amounts of mercury, so take care when cleaning or disposing of them. Check with your state environment agency, local council or Planet Ark's 'Recycling Near You' website for information on where to recycle CFLs and other mercury-containing lamps in your local area. Some states have household chemical collection programs or drop-off points.



CHECK POINTS

- Replace incandescent lights with CFLs or better still LEDs
- Get rid of halogens and replace with LEDs.
- Try to increase natural light.
- Use timers or auto sensors so lights are not left on unnecessarily.

Further resources

Check out A Greenhouse Around the Corner website:

www.agreenhouse.net.au/helpful-resources

Related fact sheets

Fact sheet 3: Return on investment

Fact sheet 14: Staff engagement strategies

Fact sheet 15: Signage and changing behaviour

For more fact sheets, go to A Greenhouse Around the Corner website:

www.agreenhouse.net.au/fact-sheets