

## Energy Efficient Lighting –

### The Clean, Green, Environment-saving Machine!

At Brisbane Maintenance Experts we take the preservation of our planet very seriously. Organisations in the construction and maintenance industry can play an important role in looking after the environment by using environmentally friendly products and recommending/installing energy efficient and sustainable fittings. So, this month we are exploring the world of energy efficient light bulbs. Of course there is a whole range of other ways to help save the planet, so for information on some of the other fantastic initiatives out there, visit <http://australia.gov.au/topics/environment-and-natural-resources/energy/energy-efficiency>.

Using energy efficient lights is one of the easiest and most cost-effective ways for a household to reduce their energy use. This not only means a reduction in your household energy bills (and a welcome cost-saving for you!!), but it also means a reduction in deadly greenhouse gas emissions. Using energy efficient lighting is a simple way to do your bit to save the planet! Australia-wide, a move to more efficient lighting (such as the light globes we recommend below), is expected to save around 30 terawatt hours of electricity and 28 million tonnes of greenhouse gas emissions by 2020! This is the same as permanently decommissioning a small coal-fired power station or taking more than 500,000 cars off the road permanently!!! Not only does this help our environment, but it also results in massive savings to the Australian economy of around \$380 million per year by 2020 (<http://www.climatechange.gov.au/what-you-need-to-know/lighting.aspx>).

We could give you all the technical details about what makes a light bulb more energy efficient than others - quoting numbers, watts, lumens etc.... But that isn't what we want to achieve here. Brisbane Maintenance Experts don't just want to help you maintain your home – we want to help raise awareness about the importance of issues like energy efficient lighting so that we can recommend what would work best in your home when the time comes for you to assess your lighting plan.

So, you may be asking, how do I use more efficient lighting in my home? To take a lot of the guess-work out of the situation, inefficient light globes are being phased out Australia-wide, thanks to the Commonwealth Government's ban on the import and sale of inefficient light globes since 2009. This was a fantastic move in the push to save our planet, but it must be remembered that this ban only relates to the *worst performing* incandescent and halogen downlights. On 1 May 2010, new legislation was also passed in Queensland making energy efficient lighting mandatory in new houses, townhouses and units. Simply put, energy efficient globes must be installed to a minimum of 80% of the total fixed light fittings in the building. This includes any attached garages and outdoor living areas. Any additions or alterations to existing houses, townhouses and units are also required to comply with the new energy efficient lighting requirements in the *new part* of the building. Despite these positive changes in legislation, there are still lots of light globes being imported and sold which are far from "energy efficient", so what lights should you be on the lookout for? And which lights do we recommend?

### The LED Light

With the increasing trend of installing halogen downlights into modern homes, it is becoming more and more important to consider the voltage and energy consumption of these lights. Each halogen downlight uses about 50 watts, and the associated transformer uses about 4-8 watts. This makes halogen downlights an *inefficient* use of energy. So what are the alternatives? While LEDs (Light Emitting Diodes) are more

expensive to buy (because they are relatively new on the market), they have a life expectancy of up to 50,000 hours (which equals 50 years for the average household light!). This is clearly a case where you get what you pay for! LEDs can also use up to 88% *less* energy than the standard incandescent, making them energy efficient and cost effective all at the same time! Winning! As LEDs slowly grow in popularity, they are also becoming better tailored to the market. There are now 'white light' LEDs available, which give off the best colour light for general domestic use, and they are also available for dimmable fittings. LEDs are also now designed in the same size and shape as the traditional, energy guzzling incandescent halogen bulbs, so LEDs can fit nicely into conventional light fittings.

### **Compact Florescent Lamps (CLFs)**

CFLs or Compact Florescent Lamps use only about one fifth of the energy of standard lights because of their decreased wattage. Plus, they last about ten times longer than incandescent bulbs! They provide the same light level and are well suited for areas where lighting is needed for long periods of time. They also produce less heat, which helps to keep your home cooler in our sticky Queensland summers!

### **Natural Lighting (yep... no lights at all!)**

Particularly when renovating, extending or building consider better use of natural light in your home. Light-coloured walls and surfaces will enhance the natural light around your home, meaning that no electricity is required at all. Use pale shades on your interior walls and use mirrors to reflect natural light, especially in darker rooms.

You can make use of natural light even in darker spaces or rooms by installing skylights and transparent roof panels or extra windows. You can also install daylight controls in those rooms where this is a fair amount of natural light. These controls automatically manage power to your lights, providing powered light during hours of darkness and automatically turn off during the day. Outdoor lights, such as in garden beds, are a perfect candidate for solar lights which not only use no electricity, but also look much nicer because there are no nasty cables running through your garden!

*So remember: it is everyone's responsibility to look after the environment, and if we all do our little bit we can make a real difference in helping to save our planet!*

Sources:

<http://www.yourpowerqld.com.au>

<http://www.climatechange.gov.au/what-you-need-to-know/lighting.aspx>

<http://www.livinggreener.gov.au/energy/lighting>

<http://www.lightingcouncil.com.au>

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