# Carbonbusting: lighting

**A large proportion of the energy we use is for lighting – it accounts for around 15% of all residential electrical use. However, there are some simple actions we can take which can significantly reduce this.**

## TAKE ACTION

### Switch off

The average household could save up to £35 a year by simply switching off unnecessary lights. Turn them off even if you're leaving the room for a short time.

### Switch bulbs

Light Emitting Diodes (LEDs) are the most energy efficient light bulb available and are becoming the norm. Replacing a traditional light bulb with an LED of the same brightness will save you up to £6 a year. By replacing ***all*** bulbs in your home with LED alternatives, you could save about £35 a year on your electricity bills.

LEDs are also available to fit most fittings and are particularly good for replacing spotlights and dimmable lights. LED lights also last far longer than other bulbs.

The other type of energy efficient light bulb is Compact Fluorescent Lamps (CFLs) which is also more cost-effective than traditional bulbs, but they are not nearly as efficient as using LEDs.

### Maximise your use of natural light

Paint walls a light colour to brighten rooms, make sure your windows are clean, and draw curtains to let in as much daylight as possible. Install 'sun tubes' or 'sun pipes'. These glass-dome-topped pipes capture daylight from your rooftop, direct it down a reflective tube, then deliver the diffused light into the room below. Prices start from approximately £200 plus installation.

### Position your lights

Use task lights to focus light where you need it, rather than illuminating the whole room. Placing lights in a corner helps reflect more light back into a room.

## YOUR QUESTIONS ANSWERED

**Q: What energy savings can be expected when replacing incandescent bulbs with energy efficient bulbs?**
LED bulbs are by far the most efficient and could save you about £35 on your electricity bills a year. They have also come down a lot in price over the past few years, offering the best value for money.

CFLs use 75-80% less electricity than traditional incandescent bulbs and can last up to ten times longer.

**Q: What sort of bulb should I buy?**
First, ensure you know the type of light fitting you require, for example bayonet or screw-cap. Small bedside lights will require less power (Watts) than a bulb that has to light an entire room.

LED replacements are available for most light fittings and are particularly suitable for replacing spotlights and dimmable lights and more and more options for LED main ceiling bulb replacements are now available. However, not all LEDs are created equal and you will find some better than others and it may not pay to go with the cheapest out there.

**Q: Do LEDs take time to 'warm up'?**
LEDs turn on at full brightness almost immediately.

**Q: Where can I buy low-energy lightbulbs?**
As all 'traditional' incandescent bulbs have been phased out because of their inefficiency, it's easy to find more energy efficient lightbulbs in all the standard stores and supermarkets that you'd expect. You can of course buy a wide range on the internet.

**Q: Do LEDs flicker when you turn them on?**
There is no flicker associated with LEDs.

**Q: Can I use energy-efficient bulbs with dimmers?**
LEDs are particularly suitable for replacing dimmable lights. However, it's important that you check the compatibility before buying. If you're not sure, ask your retailer or electrician before buying.

**Q: How do I dispose of my old lightbulbs?**
Old incandescent bulbs can be disposed of in your normal rubbish – or even better, by taking them to Redbridge Recycling Centre for disposal.

Old CFLs contain small quantities of mercury and should not be thrown away with general rubbish. Redbridge has a collection bin for them near the entrance.

Fluorescent tubes, halogen bulbs and low energy light bulbs should also not be put into your bins at home and should be taken to Redbridge Waste Recycling Centre or another collection point for recycling. Visit the Recolight website - www.recolight.co.uk - to search for your nearest collection point for these types of light bulbs.

## MYTHBUSTING

**Isn't it wasteful to replace 'normal' lightbulbs before they blow?**
No! An energy-saving bulb might take more energy to make than a traditional bulb, but the energy saved by the bulb over its lifetime far outweighs this energy consumption. If you think about the cost of a bulb in terms of both the purchase price *plus* the cost of the energy used to power it, the electricity used can often make up more than 90% of the total cost. (Source: Friends of the Earth website). It is, therefore, much better to replace the bulbs as soon as you can, rather than waiting for them to blow.

**Isn't it better to keep lights on if you are going to return to the room shortly?**
No! The old incandescent bulbs are the most inefficient and should be turned off, even if you're only leaving the room for a short time. With some bulbs (e.g. CFLs), turning the light on and off repeatedly will shorten its life, but this isn't the case with LEDs. There is no negative effect of the lifespan of LEDs by turning them off and on. So, turn those lights out when leaving a room!

**I've tried low-energy bulbs in the past and they gave a gloomy, cold light**
The first bulbs developed did tend to give a cold blue light. But now the technology has advanced considerably and there are now a range of different tones available, including lots of 'warm' options.

Have a look at the Energy Saving Trust website for advice on creating the right atmosphere with lighting in your rooms. Also, the website http://www.toptenuk.org/ has information on which LED lights to buy.

## FIND OUT MORE

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| Oxford City Council Website | https://www.oxford.gov.uk/downloads/download/541/energy_saving_advice |
| Energy Saving Trust website | www.energysavingtrust.org.uk |
| toptenUK.org | http://www.toptenuk.org/ |