

# A GUIDE TO ENERGY EFFICIENT LIGHTING

Traditional incandescent bulbs provide us with light but waste a lot of energy generating heat. There are many alternatives that we can use including compact fluorescent lights (CFL) and LEDs (Light Emitting Diode), which can significantly cut our energy consumption and carbon footprint. So take a look at this guide today to find out a bit more about these options and how to use them responsibly.



## Some simple facts about Compact Fluorescent Lightbulbs (CFL)

- By switching to CFLs, you can make significant savings off your energy bill.
- CFLs last 10 times longer than incandescent bulbs.
- They work with your existing fixtures.
- They emit 4 times less CO<sub>2</sub> emissions.

## Where to buy CFLs

CFLs are readily available in the UAE in all major supermarkets, department stores and convenience stores, including: Abela Superstore; ACE Hardware; Al Maya Lal's; Carrefour Hypermarkets; Choithram Supermarkets; Emarat Gas Stations; Geant Hypermarkets; Hyperpanda; IKEA; Sharaf DG Stores; Spinneys; SPEEDEX Superstore; Union Co op stores.

## Start with one bulb

Try just one bulb to make sure it gives the kind of light you want. Look for bulbs with a colour temperature between 2650 and 2850 degrees Kelvin or labeled "warm white."

## Finding a CFL with similar brightness to an incandescent bulb

Look for CFLs with wattage about one-quarter of the incandescent bulb you're replacing.

## Check the shape and size

CFL bulbs can be bigger than standard incandescent bulbs. Inspect your lamp shade and socket to ensure that your lamp can accommodate the CFL.

## Dispose of burnt-out or broken CFLs properly:

- Open a window and leave the room for 15 mins or more
- Collect all broken materials using a wet rag, being careful not to disturb the dust
- Place all materials (including the rag) in a sealed plastic bag and place that bag in a second bag
- Wash your hands afterwards

- If possible, place in specialist recycling facilities that are designed to deal with CFLs or ask the retailer if they provide a recycling facility for these bulbs.
- If recycling facilities are not available then dispose as normal

## Some simple facts about LEDs

- Last up to 10 times longer than CFLs and far longer than incandescent bulbs.
- As they are solid and without a filament, they do not break as easily as CFL or incandescent bulbs.
- Do not cause heat build-up
- No mercury is used in the manufacturing of LEDs.
- Use only 2-10 watts of electricity (1/3rd to 1/30th of Incandescent or CFL) Small LED flashlight bulbs will extend battery life 10 to 15 times longer than with incandescent bulbs.
- Although LEDs are expensive, the cost is recouped over time in energy and in battery savings.
- Due to the low power requirement for LEDs, using solar panels becomes more practical and less expensive than running an electric line or using a generator for lighting.

## Selection and use of LEDs

Many different models and styles of LED bulbs are emerging in today's marketplace. When choosing a bulb, keep in mind the following:

- Read the package to choose your desired illumination level. For example, a 3W LED is equivalent in output to a 45 W incandescent.
- Choose appropriate colours and between warm and cool light - LEDs are available in 'cool' white light, which is ideal for task lighting, and 'warm' light commonly used for small area lighting.
- LEDs are available in several types of 'pin' sockets or the standard 'screw' bases for recessed or track lighting.