Light up your home efficiently

Use eco-friendly products to save electricity and money too

As use of electrical and electronic products in your home rises, can soaring electricity bills be far behind? One major way you can cut costs is by going for the right kind of lighting. Did you know that lighting accounts for almost 20% of the monthly electricity bill in many households?
There are three main types of lighting systems available in the market: traditional incandescent bulbs, compact fluorescent lamps (CFLs) and light emitting diodes (LEDs). In traditional Incandescent Bulbs (which are being phased out in India), only 5% of the electricity is converted into light, the rest is lost as heat. Their only advantage is that they are cheap (though not cost-effective in the long run) and easily available.

What's new

CFLs: In a CFL, an electric current is driven through a tube containing argon and a small amount of mercury vapour. This generates invisible ultraviolet light that excites a fluorescent coating (called phosphor) on the inside of the tube which then emits visible light. CFLs may need a little more energy when they are first turned on but they use much less electricity as compared to an incandescent bulb to provide the same level of illumination. Also, they contain a small amount of mercury and should be disposed of safely.

LEDs: LEDs are semiconductor devices that produce visible light when an electrical current passes through them. Since electricity is directly turned into light, LEDs waste less energy as heat. LEDs are 'directional' light sources, which means they emit light in a specific direction, unlike incandescent bulbs and CFLs, which emit light and heat in all directions. For this reason, LED lighting is able to use light and energy more efficiently in many applications. LEDs do not radiate heat. Neither do they overheat and burn out.

How they compare

	LEDs	CFLs	Incandescent Bulbs
Life	3-5 years	250 days	41 days
Power consumption for same light output	6-8 watt	12-15 watt	60 watt
Energy consumption	82% less than incandescent bulbs	75% less than incandescent bulbs	At least 75% more than other two options
Price	Rs. 200-1100	Rs. 145-700	Rs. 12-20
Presence of Mercury	No	Yes (toxic substance)	No
Turns on instantly	Yes	No - takes time to warm up	Yes
Durability	Very durable. Can handle jarring and bumping	Not very durable. Glass can break easily	Not so durable. Glass or filament can break easily

Incandescent bulbs are on the way out and are being replaced by CFLs and LEDs. Opt for one of the latter two categories depending on your budget and do your bit for the environment.

Sources: cseindia.org, www.sefworld.org