Environmental Tips nº 8 August 2010

Compact fluorescent lamps vs. Incandescent lamps

What are Compact Fluorescent Lamps (CFLs)?
They are small fluorescent lights which fit into standard light sockets. They have a longer life expectancy and use less energy than a standard (incandescent) light bulb.

Do CFLs contain mercury?
Yes, they require mercury to generate light efficiently. The mercury is also used to produce ultraviolet light which is then converted into light we can see by a special coating within the bulb. The coating is inert and poses no health risk.
Nowadays, the typical amount is around 4 milligrams per lamp – just enough to cover the tip of a ball point pen and enough to last the expected average life-time of the CFL.

Does this mercury pose a risk?
Mercury cannot escape from an intact lamp and, even if it were to be broken, the very small amount of mercury contained in a single modern CFL will most likely not cause any harm.
Nevertheless, it makes sense to avoid unnecessary contact with mercury. A broken light bulb will also result in many small and sharp pieces of glass so it's best to take care when dealing with these breakages. For more information please consult: UK Health Protection Agency

Please find below a table with the advantages of changing an incandescent light bulb for an equivalent CFL and for a daily use of 4 hours.

Power	**Incandescent** **60 W**		**Compact Fluorescent** **11 W**	
Average life expectancy	1 000 h		10 000h	
Price	1,15 €		6,79 €	
Power consumption over 5 years	438 KWh		80 KWh	
Cost (kWh at 0,1200 €)	52,56 €		9,64 €	
Required lamps over a 5 year period	8 (over 700 hours of use)		1 (over 2700 hours of use)	
Total Cost	**61,76 €**		**16,43 €**	

- **EcoFamilias Project – developed by Quercus in 2007**