

## Time to Let Go

Alice C Doyle 10th March 2009

Smart Sussex's Alice Doyle take a look at the backlash of consumer panic over the phasing out of old fashioned incandescent lightbulbs.

Let's make Victorian technology, a thing of the past

The proposed phase out of incandescent light bulbs is one simple step in the fight against climate change. However some protractors are determined to hang onto this Victorian technology and the phase out is becoming almost akin to a civil rights infringement. Similar to the plastic bag being a symbol of modern day wastefulness, the light bulb is becoming symbolic for those who are still adamant to saw off the branch upon which they sit.

The first electric light was invented by Humphry Davy in 1802. Building upon his work, various experimenters tinkered with carbon rods and iridium wires and, but it was not until 1879 that Thomas Edison created the first commercially practical incandescent lamp.

It is this Victorian model that we regularly use in our lamps and light fittings. Over a century later in the era of the internet, missions to Mars and genome sequencing, we are still using a small filament of tungsten wire inside a glass case to light our homes and businesses. Technologically, this is akin to using a horse and car to commute to work...on the M25.

Not only does 95% of the energy used to light a bulb disappear as heat, but energy efficient equivalents use 75% less energy and last up to 12 times longer. In the face of rising fuel costs and climate change it is common sense for the pocket and the conscience to use energy efficient equivalents. Costs of these bulbs are falling rapidly. Cosmetically, new designs provide just as much ambiance as the humble tungsten. Also the broad range of bulbs presently available suit kitchen fittings to chandeliers with no need for replacement fittings. However, the attempt to phase out the incandescent bulb, invented in the same year the Zulu war began, has been met with Luddite heel dragging.

Let's not forget the simplest and most effective solution to energy efficient lighting – switching lights off.

The Government is working with all major retailers who sell light bulbs, the lighting industry and UK energy suppliers to phase out traditional energy guzzling bulbs by 2011. January 2009 saw the start of the phase out of 100-watt bulbs with 60-watt bulbs is to be scrapped by January 2010. This will cut UK carbon dioxide emissions by five million tonnes a year and help to take us closer to our 2050 target of reducing carbon emissions by 80 per cent.

Yet ahead of the ban, some householders are so attached to this antiquated technology that stores have seen a rush to buy them – they are being stockpiled ahead of the day when they are no longer available. Aesthetically people may prefer the warmer glow of an incandescent tungsten bulb to an eco-friendly compact fluorescent (CFL) coupled with the fact cheaper CFL bulbs can have a slow warm up time. CFL do contain mercury and need to be disposed of carefully, however, they are actually harder to break than traditional bulbs due to their plastic protective coating. According to trade figures, breakage rates are less than 1%.. Also net mercury emissions related to lighting will be reduced by more than 50%, as fewer kilowatt hours of electricity will need to be produced by coal-fired power plants to power the bulbs.

Protractors have cited that CFL have not had adequate health and safety procedures and their impacts upon health has not been thoroughly researched. There are also concerns that the bulbs' flickering can trigger epileptic fits, and the low frequency noise they emit can aggravate autism. However these claims have not been tested, substantiated and are purely anecdotal. Conversely the predicted health impacts of global warming however have been widely predicted not just at a regional level but internationally.

Although CFLs are a relatively new technology, new designs are now on a par financially and cosmetically with their Victorian cousins and widely available in supermarkets and high street shops. Not only that but investment and entrepreneurship will soon see a second generation light bulb such as LEDs, light our homes soon. Our love affair with the humble light bulb arises more from sentimentality than the fact energy efficient equivalents are of inferior stature or economic burden.

If everyone in the UK installed three energy-saving light bulbs, we would save enough energy to power all the UK's street

### lighting for a year

As with all new technologies, lighting is on a learning curve and currently we are all on the cusp. As legislation changes and the environmental lobbying enters mainstream politics, the light bulb phase out is the first of many adaptations that we must make as we enter into a low carbon society. We possibly have a 10 year window in which to avert catastrophic runaway climate change. The light bulb phase out, instead of being knocked, should be exalted, the first of many bright ideas in a multi pronged strategy to curb out escalating carbon emissions. How many other low cost products do we see in our stores that will not only help our pocket