

# A Bright Idea

What does the new legislation on energy efficient light bulbs mean for consumers and our industry? **Gemma Howard** found out...

Since 1 September 2009 the UK government has been working with retailers and the UK lighting industry to start phasing out traditional light bulbs, replacing them with energy efficient alternatives such as compact fluorescent lamps (CFLs). This move follows an EU-wide mandatory phase-out of incandescent bulbs as agreed by EU member states back in December 2008.

The main driver behind the new legislation is that CFLs are up to 80 percent more efficient than traditional light bulbs, which waste 95 percent of electricity as heat. Although CFLs are regarded as the most energy efficient alternative, halogen lamps present an energy saving of 25-40 percent and light-emitting diodes (also known as LEDs) are being developed to also produce positive energy savings.

The Lighting Association explained that phasing out traditional "A" shaped bulbs, will save the same amount of electricity per year as would be produced by two atomic power stations. It says householders will save a minimum of 75 percent of the electricity used with traditional bulbs and the Energy Savings Trust estimates this will equate to £9 per year, per household.

Damage to health and the environment from the mercury contained in energy efficient lights, as was feared, is unlikely to be significant as the quantity is limited to five milligrams per lamp. Over the lifetime of both lamp types, energy efficient bulbs produce less mercury. This is due to the fact that mercury is emitted from power stations during electricity generation.

There are many public myths surrounding energy efficient lighting, including those mercury concerns; whether they will fit with existing light

fittings; the amount of light they emit; and their longevity. Many associations are working hard to re-educate the public (and the industry for that matter) around the advances in lighting technology. The Electrical Contractors Association (ECA) has said that in Germany alone sales of traditional incandescent light bulbs had risen 34 percent in the first six months of this year due to people stockpiling. The ECA head of technical services, Giuliano Digilio, said: "The introduction of energy-saving lightbulbs is great news for the environment and for consumers who will enjoy cheaper energy bills. It's not something people should be worrying about and certainly not a reason to hoard old lamps. We have seen significant advancements in lighting technology over the past few years and this is set to continue."

"Consumer concerns over first generation energy-saving lamps are almost certainly a thing of the past. We want to address some popular myths circulating on websites by showing consumers the environmental and cost-saving benefits of switching to energy saving lamps."

CFLs are, however, classified as hazardous waste and their disposal must follow the recommendations within the new WEEE Regulations. Distributors of CFLs must either:

- join the distributor take-back scheme, which assists the funding of the network of designated collection facilities established at local authority civic amenity sites
- offer in-store take-back. The distributor must accept, free of charge, an item of household WEEE on purchase of an equivalent item.

Every civic amenity site across the country is now established as a designated collection facility for

household WEEE. Of the 1 123 sites, 1 082 have separate collection facilities for gas discharge lamps, which include CFLs.

A Defra spokesperson said: "Defra is currently working with local authorities on what they can do to make it easier to recycle the energy efficient compact fluorescent lamps. With all new products, the end-of-life recycling can take a while to become widespread, but this is happening now and being taken very seriously by local and national government."

## The Phase-Out Begins

ON 1 September every year for the next four years, all 100W, then 75W, then 60W and finally all remaining 40W and 25W incandescent lightbulbs will be removed from the market. This means all lighting must carry a minimum energy rating of class C. On 1 September 2016 the minimum level will be raised to an energy rating of B.

Commenting on the effects this will have for the waste and recycling industry, Nigel Harvey, chief executive of Recolight, a producer-led compliance scheme specialising in the recycling of gas discharge lamps, explained: "The European-wide phase-out of traditional incandescent lamps will inevitably lead to an increase in sales of CFLs. The legislation is a very positive move that will help to reduce carbon emissions – and help consumers to reduce household electricity costs."

"However, the number of household CFLs reaching end-of-life at the moment is still low – on average they have a lifetime of six years or more. By far the biggest growth in householder CFLs put on the market was in 2008, when 130m were supplied. We therefore do not expect these lamps to start being returned

for recycling in large numbers until 2013/14. The consumer CFL waste stream is still much smaller than its commercial counterpart – businesses have been using fluorescent tubes and other gas discharge lamps for many years, so there is a large and relatively stable level of commercial lamp recycling.

"In the two years to June 2009, Recolight funded the collection and recycling of 9 750 tonnes of lamps, the equivalent of over 50m gas discharge lamps.

"Currently householders can take their CFLs to one of 1 123 civic amenity sites around the country, or to the network of Recolight collection points. We are also investing now in raising awareness amongst householders, and putting the mechanisms in place for householders to recycle their CFLs. This includes working directly with retailers to provide in-store take-back and working with local authorities, county councils and waste disposal authorities to implement other drop-off points. We welcome any contact with those responsible for waste management to implement CFL take-back systems.

"Initially we do not expect significant returns through these take-back points, but it is nevertheless right to establish them now. It allows consumers to get accustomed to the need to recycle CFLs, well before the volumes being returned start to rise. Recolight is already running a schools education project, with 700 schools across the UK, to help increase awareness of the need to recycle CFLs.

"As a not-for-profit organisation our key objective is to increase the amount of lamps being recycled and keep this hazardous waste stream out of landfill. Traditional incandescent lamps are not required to be recycled in the same way as CFLs as they are not classed as WEEE. They can currently be included with normal residual waste – although we will recycle any that are inadvertently included in our collection bins." **CIWM**

For further information visit:  
[www.defra.gov.uk](http://www.defra.gov.uk)  
[www.eca.co.uk](http://www.eca.co.uk)  
[www.energysavingtrust.org.uk](http://www.energysavingtrust.org.uk)  
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