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A Recolight White Paper examining responsible recycling of domestic CFLs in response the EU's phase out of incandescent light bulbs

New EU regulations are set to see traditional incandescent light bulbs progressively phased out by 2012 and replaced by low energy alternatives known in the industry as Compact Fluorescent Lamps (CFLs).

More than 120 million CFLs are being used in the UK today¹ but that figure only represents one out of every five bulbs. However, switching to CFLs – which only use 20% of the energy of a traditional bulb and have a lifespan up to ten times longer, is expected to save the UK more than 3.9 million tonnes of CO₂ emissions a year².

As a result, the next few years will see a considerable increase in the volume of CFLs reaching end-of-life. Until now, many people have been unaware that these low energy alternatives need specialist recycling because too little information has been provided to consumers about the minute amount of mercury they contain, and that they are classed as hazardous waste. This has necessitated a need to raise public awareness about the importance of recycling CFLs responsibly and to examine possible motivators to change consumer behaviour.

This white paper provides a summary of current consumer awareness regarding CFL recycling and Recolight's recommendations for ensuring harmful mercury is kept out of landfill.

Domestic adoption and recycling of energy saving light bulbs

Last year 130 million CFLs were supplied in the UK³. According to Recolight's research*, the vast majority of the population (88%) now has at least one energy saving light bulb at home, and three out of five households (62%) have at least five bulbs.

Despite these encouraging statistics, only two out of five homeowners (41%) are aware that CFLs need to be recycled responsibly rather than disposed of alongside general household waste when they reach end-of-life. Only one third of people (34%) understand the importance of recycling CFLs at specialised recycling facilities to avoid mercury contamination, which demonstrates the importance of raising public awareness and making it easier for householders to recycle.

¹<http://www.energysavingtrust.org.uk/Resources/Features/Features-archive/Energy-saving-light-bulbs-take-over>

²<http://www.energysavingtrust.org.uk/Resources/Features/Features-archive/The-Light-bulb-Challenge>

³www.ofgem.gov.uk/Sustainability/Environment/EnergyEff/Documents1/090414%20CERT%20consultation%20response%202.pdf

Whilst the typical amount of mercury used in a domestic CFL is very low at around 4 milligrams and does not present a health risk, CFLs should be taken to a controlled recycling centre.

Despite this, 60% of householders say they would still dispose of CFLs in their rubbish or recycling bins, with just one in three (28%) saying they would take their bulbs to one of the 1,100 civic amenity sites nationwide. These findings may be easier to understand when one considers that more than half of the population (51%) are unaware that CFLs contain minute amounts of mercury.

The research also shows those in higher socio-economic groups, who were 'post family', or aged 45 plus, tended to be better informed about the fact that CFLs need to be recycled responsibly.

Conversely, those in lower socio-economic groups or under 45, appeared to be less well informed. For these groups, it is ever more important to find targeted ways to communicate with them to raise levels of awareness to change their behaviour.

Recycling Barriers and Motivators

The research identified a number of barriers as to why people may not understand the need to recycle CFLs or not wish to go to the trouble of doing so. Almost half of those asked (45%) said they would rather throw out old bulbs if recycling required significant personal effort.

Not being able to dispose of CFLs at home was a key factor in discouraging respondents from purchasing low energy alternatives at all. 25% felt that simplicity was the most significant factor in persuading them to recycle.

On a more positive note, half of householders (53%) believe that the need to recycle CFLs would not make consumers any less likely to buy them in the future.

When asked to consider the one method which they would prefer using to recycle CFLs responsibly, the most significant proportion (42%) cited separate home recycling containers for doorstep collection, much in the same way other household waste, such as paper and glass, is collected.

The remainder opted for a variety of methods including using recycling banks in central community locations such as supermarkets and lighting retailers (32%), taking old CFLs to local authority recycling centres (17%), or using a freepost padded envelope to return bulbs to a recycling unit (9%). The over-arching trend was that younger people and those with young families favoured what they saw as the most convenient option, home pick-up, as this saved them both time and effort.

Clearly, the key factors to motivate people in the UK to recycle are ease and convenience as the vast majority of the population (81%) were willing to recycle their bulbs if it were more 'convenient' to do so.

In addition, people were asked who they felt should be responsible for the cost of recycling. Two out of five (38%) believed it to be the responsibility of the local authority while 36% felt it should be a joint initiative between the local authority, lamp manufacturers and retailers. 20% deemed manufacturers solely responsible for the funding of the recycling process.

What action is Recolight taking?

From the research it is clear that the general public is receptive to the concept of recycling as they are conscious of climate change and the need to cut carbon emissions. To reflect this point, research found that over half of the respondents (56%) accepted that climate change was a matter of great concern while three quarters (75%) were aware of the importance of recycling.

However there seems to be a general lack of awareness regarding the importance of recycling CFLs responsibly. This was certainly found to be the case in the younger and lower socio-economic groups.

Recolight is now looking at ways to address this as well as to stimulate debate amongst the government, local authorities, manufacturers and retailers to create action plans to make CFL recycling processes more simple, convenient and cost effective.

Recolight is actively working directly with local authorities, county councils, and waste disposal authorities to implement a variety of ways to make CFL recycling simple for householders, with the ultimate aim of increasing household levels of recycling.

Recolight has also announced a partnership with Sainsbury's to provide CFL collection facilities at 200 stores nationwide. Consumers will be able to use these points to dispose of their end-of-life bulbs safely and conveniently. Recolight is actively encouraging local authorities, county councils and waste disposal authorities to create more drop off points at other recycling sites around the country. Recolight is also running a schools education project called The Big Light Project [www.thebiglightproject.co.uk] to educate children about the importance of recycling light bulbs.

Recolight recognises that there will be a need to further enhance the infrastructure in place to recycle CFLs over the next few years. Currently the 1,100 local household waste recycling centres (HWRC) are the main places for consumers to return end-of-life CFLs. By establishing further drop off points at retailers and other recycling sites, Recolight is improving the availability of public recycling facilities.

The long life time of CFLs (typically six years or more) means that the current volume of CFLs that needs to be recycled is very low. But now is the time to take practical action to encourage people to recycle their CFLs, and put the mechanisms in place to make it easy for them to do so, as we prepare for increases in the volume of householder CFLs reaching end-of-life over the next few years. By creating



increased drop off points now, Recolight is starting this process well before recycling volumes start to increase.

* The research was conducted by Ipsos MORI. More than 2,000 UK adults were interviewed in May 2009.