

Incandescent Light Bulbs

12.30 pm

Sheila Gilmore (Edinburgh East) (Lab): It is a pleasure to serve under your chairmanship, Mr Crausby. This debate will not be a complaint about poor light quality, which some people have mentioned in the past, or about the ugliness of some of the light bulbs in question when they appear under a beautiful lampshade. *[Interruption.]* Some hon. Members are raising their eyes towards the ceiling as I speak. Finally, I do not seek to become part of a crusade by the *Daily Express* against the European Union, as happened when I tabled an early-day motion on this subject.

This debate is about a serious issue for people, perhaps relatively small in number, who could not sit in this Chamber, as I and other hon. Members are doing, underneath these lights. Those people could not stay in this Chamber to take part in this discussion, even if they were able to, because of the effect that these light bulbs would have on them.

My interest in this matter was stimulated by a constituent, Catherine Hessematt, who contacted me shortly after my election in 2010. She is the co-ordinator of Spectrum Alliance, a group that campaigns on behalf of individuals who have suffered negative effects from low-energy lighting. Those people have suffered ever since the roll-out of low-energy lighting, and they need to use what are considered to be the old-fashioned, high-energy, incandescent bulbs in their homes. At the moment, they can do that because they are still able to source those bulbs, but that is coming under serious threat from the regulations that are set to remove incandescent light bulbs from the market by September this year.

Until my constituent contacted me I was unaware of such concerns, and I imagine that that is widely true elsewhere. After some investigation, however, I concluded that the views of the Spectrum Alliance needed to be raised in Parliament, and that the Government need to do something to prevent people such as my constituent from being forced to live in the dark for the rest of their lives.

I will go on to talk about the legislation, but first I will give a little more detail about the impact of this problem on certain individuals. The Spectrum Alliance has evidence to suggest that low-energy lighting—for example, compact fluorescent lamps such as those above us—aggravate a range of pre-existing medical conditions that include lupus, migraines, autism and ME.

The first example I will cite is that of a woman who suffers from lupus, a systemic auto-immune disease in which the immune system attacks the body's cells and tissues. She develops a visible burning skin reaction, sore red eyes and a headache within minutes of exposure to fluorescent lights. In the past, doctors have suggested the use of bulbs that screen out ultraviolet light, but that makes no difference. Other lupus sufferers have reported similar experiences. It is important to stress, however, that although some individuals do not have recognised pre-existing conditions such as lupus, they nevertheless find that these bulbs impact on their health.

My second example is of a lady who has no pre-existing medical condition. She worked for an employer for several years, was happy in her job and had good prospects. However, when her employer moved into a

newly-built office, she developed disabling headaches from the first day as a result of the low-energy lighting in the workplace. She had to take time of work because of the problem, and is likely to lose her job.

James Wharton (Stockton South) (Con): I congratulate the hon. Lady on securing this important debate. To add some context, I should say that a close relative of mine suffers, although not as seriously as the people in the cases mentioned by the hon. Lady, from migraines brought on by a pre-existing condition that is worsened by long-term exposure to this sort of bulb. Although there are extreme examples, there is also a whole spectrum of ways in which these bulbs can have a negative impact on the lives of our constituents.

Sheila Gilmore: I thank the hon. Gentleman for his helpful intervention. In the two examples that I mentioned, the reaction to exposure to the bulbs was extreme and rapid. Many people suffer in a lesser way, but it is nevertheless an issue for them and something that we could, and should, avoid. However committed we may be to our energy obligations—and we should be—it is important not to ignore the adverse effects on some of our population.

The scale of the problem is not insignificant. In answer to a written parliamentary question on 1 February 2011, the Under-Secretary of State for Health (Anne Milton) referred to figures that estimated that 250,000 people in the EU are at risk from increased levels of ultraviolet radiation or blue light generated by compact fluorescent lamps.

Joan Walley (Stoke-on-Trent North) (Lab): I am grateful to my hon. Friend for securing this debate. Does she agree that the Departments for Environment, Food and Rural Affairs, for Business, Innovation and Skills, and for Energy and Climate Change should work in a cross-departmental way to see what further research could be done in the European Union to look at the long-term effects of new technologies on people who have a pre-existing condition? We must start looking at what long-term changes might be needed, while also having regard to those who are suffering now, and we must see whether there is a way of obtaining a dispensation so that such people are not exposed to those causes of ill health, as appears to be the case at the moment.

Sheila Gilmore: As chair of the all-party lighting group, my hon. Friend has extensive knowledge of that subject and the issues that should be raised. Although long-term research is always helpful, we must also focus on the impact on individuals. As the Health Minister indicated, the figures she gave could equate to 30,000 or 40,000 people in the UK being affected by this problem. Those, however, are people who are known to have a pre-existing condition, and the Spectrum Alliance estimates that the true number of people affected in the UK—with, as has been said, varying levels of impact—could be as many as 2 million, many of whom are already suffering from conditions such as migraines or autism.

The science behind this issue may not yet be entirely resolved, and although the light bulbs in question have a clear impact on people, we must do some research into the matter. Low-energy lighting operates differently from incandescent bulbs in terms of levels of ultraviolet

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radiation, electric fields, flicker and peaks in light wavelength, especially with blue light. As yet, research has not been sufficiently in-depth to enable us to say which features of fluorescent bulbs have an effect on health, because they differ from incandescent bulbs in multiple ways. We do know, however, that people's health is not affected in the same way when they use incandescent bulbs.

Let me be clear: I do not seek to discourage the use of low-energy light bulbs and lighting where that is useful and helpful. I acknowledge that climate change is one of the most significant challenges that we face as a country and I welcome the positive contribution that lighting can make in reducing our energy consumption. However, I do not believe that it would be right to implement the ban on incandescent light bulbs so dogmatically that people suffered. That is the crux of what I am saying.

Mark Lazarowicz (Edinburgh North and Leith) (Lab/Co-op): I am grateful to my hon. Friend for securing the debate. I am sure that many hon. Members agree with the point that she is making. This is not about being against low-energy light bulbs as a generality, but about recognising that some individuals have a particular problem with that lighting. There is a danger in just dismissing their concerns, which need to be taken seriously. That is all we are asking for, and I hope that the Minister will respond positively at the end of the debate.

Sheila Gilmore: I thank my hon. Friend for his intervention; that is indeed the outcome for which I am hoping.

The key legislation in this area started with the ecodesign of energy-using products directive in 2005. That was updated and recast four years later by the ecodesign directive of 2009. Those directives set down rules on the environmental performance of products that used energy, such as light bulbs, and those that related to energy use, such as windows. They set the framework for further implementing measures, and the relevant Commission regulation of 2009 set out a timetable for the phasing out of the manufacture and import of incandescent bulbs. The position is that 100 W bulbs were banned in 2009, 75 W bulbs in 2010 and 60 W bulbs in 2011. The remaining 40 W and 25 W bulbs will be banned as of 1 September 2012. That regulation was not voted on by the European Parliament—it went through without debate—and it is directly applicable. That is why there is no transposing legislation at our level.

Concerns about health impacts have been acknowledged at EU level, although that has not yet been reflected in better policy. In 2008, the European Commission scientific committee on emerging and newly identified health risks—commonly referred to as SCENIHR—produced a report that concluded that although single-envelope CFLs could induce skin problems among some people, that might be alleviated by the use of double-envelope CFLs. However, Spectrum Alliance is clear that its members have tried those double-envelope bulbs and that, although they are an improvement for some people, they still induce similar symptoms in most of those affected.

The concerns were acknowledged when the European Commission asked SCENIHR to produce an updated report in March 2012. That was published in draft form in July 2011 and in full in March this year. It, too, referred to the possible health impacts of low-energy lighting, but SCENIHR itself does not carry out first-hand research; it simply reports on research that has been carried out. It concluded that because of the considerable variability of the components for lighting technologies, no general advice could be given to individuals about how they could avoid those health impacts.

It is possible that some people will be able to find means of lighting other than incandescent bulbs. It has been suggested that they could try light-emitting diodes—LEDs—or the double-envelope CFLs, but again the Spectrum Alliance campaigners are clear that neither of those technologies has yet succeeded in overcoming the problems that people are suffering.

My hon. Friend the Member for Stoke-on-Trent North (Joan Walley) chaired a meeting of the all-party lighting group last October. Present were representatives from Spectrum Alliance, the lighting industry and the relevant Departments: BIS, DEFRA and the Department of Health. We discussed a number of options. It was made clear that the Government would not wish to defy the regulation, that they did not simply not implement things that they did not agree with and that they could be fined under the infraction proceedings if they sought to do so.

We then discussed the possibility of an exemption for people with medical needs. There is a precedent: rough-service lamps are already exempt under the regulation. Rough-service lamps are incandescent bulbs that are used for industrial purposes where a low-energy alternative would not work properly. There is, therefore, a precedent for having an exemption for industry. We argue that an exemption should also be made for people with specific health needs.

Earlier this year, my hon. Friend and I met Lord Taylor of Holbeach, the Minister with responsibility for this area. On hearing the arguments, he expressed some concern that people might seek to take advantage of any exemption, but I would have thought that it was possible to configure a system to prevent, or at least to minimise, that risk. For example, incandescent bulbs could be dispensed by prescription at pharmacies.

The Minister also expressed the strong hope that emerging technologies would resolve the problem for us. That may be the case in the future. There may be—I sincerely hope that there is—a lighting technology around the corner that will resolve the problem. It would meet the low-energy requirements but without the health effects that I have described, but at the moment it does not exist. That is a serious practical problem.

Lord Taylor also indicated that he would be keen for further research to be carried out, and I certainly would not in any way say that there should not be further research. However, although I support further research, I want to suggest that both the Government and the European Commission are coming at this issue from the wrong direction. It makes sense to resolve any uncertainty about the safety of products before we force people to use them—rather than afterwards, when the alternatives have been withdrawn. In this case, consumers are being expected to prove that certain products are

unsafe, rather than the Commission and the Government having ensured that they were safe in the first place.

I ask the Minister this central question: if nothing is done, what are my constituent and many more like her to do? Are the Government comfortable with forcing people to live in the dark for the foreseeable future? I am sure that the Minister finds that situation no more acceptable than I do. I understand that limited options are available, but I ask him to do whatever he can to allow people who suffer negative health impacts from low-energy bulbs to continue to purchase incandescent bulbs when the ban comes into full effect in September.

12.46 pm

The Parliamentary Under-Secretary of State for Environment, Food and Rural Affairs (Richard Benyon): I congratulate the hon. Member for Edinburgh East (Sheila Gilmore) on securing the debate and on representing her constituents—indeed, all our constituents—who are suffering in the way that she describes. There can be an extensive discussion about the extent to which the problem exists, but I think that we all recognise that it is a problem and that she was right to bring it to the House today.

It is important to place on the record the context in which the current changes are being made. Then I shall talk about the health issues that the hon. Lady raised so forcefully. The Government recognise, as I think the hon. Lady does and as the hon. Member for Stoke-on-Trent North (Joan Walley) certainly does in her role as Chair of the Environmental Audit Committee, that climate change is one of the gravest challenges that we face and that urgent action is required to tackle it. Failure to transform how we produce and consume in the UK will expose the economy to many risks—from the damage wreaked by the effects of climate change to constraints on future growth from unsustainable depletion of our natural capital. The Government have set out clearly how they want to be the “greenest Government ever” and that that must be based on action, not words. Ensuring the sustainability of products is one way in which we can act now.

The amount of energy consumed by household electrical goods is staggering. Products targeted by the European eco-design and energy labelling directives account for an astonishing 50% of the European Union’s energy consumption. We need to promote the most efficient products to consumers, which in turn rewards the businesses developing and selling them. Energy labels are an effective way of doing that. The EU’s A to G energy labels enable consumers to choose efficient appliances. Labelling also enables manufacturers to compete against one another on the environmental performance of their products.

There are, none the less, occasions on which policies such as labelling and consumer awareness fail to produce the necessary switch to more sustainable products. In those cases, choice editing by removing the least efficient products from the market remains one of the most cost-effective ways of reducing energy consumption, while at the same time benefiting consumers and businesses by reducing their energy bills. As a member of the European single market, the UK cannot by itself introduce mandatory minimum energy performance standards for appliances because it would inhibit free trade. The EU eco-design for energy related products framework directive

is a single market directive under article 95 of the EU treaty and provides the legal framework within which implementing measures set standards for the environmental performance of products or product groups. Those measures can take the form of regulations or voluntary initiatives.

To date, 12 regulations have been agreed under the eco-design directive and two voluntary initiatives are close to agreement. The regulations are expected to save the UK almost 7 million tonnes of CO₂ a year by 2020. They are expected to generate just over £850 million a year in net benefits for British consumers and businesses through reduced energy bills. I recognise that the hon. Member for Edinburgh East is keen for me to move on to the health issues, but it is important to put these points on record. Lighting is a major contributor to global energy consumption. The International Energy Agency estimates that electricity consumption for lighting represents almost 19% of global electricity use and is responsible for approximately 8% of world greenhouse gas emissions.

The regulation of 2009 became directly applicable in all EU member states after agreement by the European Parliament and Council in spring of that year. It sets minimum standards for non-directional household lamps—in other words, bulbs that provide a spread of light, such as those under which we are sitting, as opposed to, say, spot lamps. Incandescent light bulbs waste 95% of their energy as heat. They are therefore too inefficient to meet the standards, so are being in effect phased out in the EU. Other countries phasing out or planning to phase out incandescent light bulbs include Australia, Brazil, China, Japan, Russia, South Korea and the United States. The regulation is predicted to save 39 TWh across the EU annually by 2020. Within the UK, it will mean net savings each year of 0.65 MtCO₂e and 0.3 TWh by 2020. The average annual net benefit to the UK between 2010 and 2020 is predicted to be £108 million.

CFLs use 20% to 25% of the energy an incandescent light bulb uses. Halogen light bulbs offer anything between 20% to 45% energy savings on incandescent bulbs. The Government are working to encourage the development and use of ultra-efficient lighting, which could produce even greater savings. For example, DEFRA and the Technology Strategy Board ran a successful £1.2 million challenge to develop LED lighting to replace conventional incandescent lamps. The initiative successfully supported two small and medium-sized enterprises—Juice Technology and Zeta Controls—to prototype stage. That is an excellent example of how minimum standards are driving innovation and transforming the market.

Problems, such as slow warm-up times and poor quality light, were reported with some early CFLs. However, the industry has responded well to the challenge to produce new quality products. Regulation 244/2009 assisted by putting in place minimum standards for the performance of CFLs, which protects consumers from substandard products and the manufacturers of quality products from unfair competition. The hon. Lady mentioned flickering, which did cause problems in older light bulbs, and it was believed that that contributed to considerable difficulties for migraine sufferers, but it has been improved, although not to the satisfaction of

[Richard Benyon]

all. I will come on to those issues now, but both the performance and the choice of CFLs has improved a great deal.

Although energy efficient lighting produces significant environmental and financial benefits, we need to ensure that lighting solutions remain available for people with light-sensitive health conditions. CFLs can generate higher levels of UV and blue light than incandescent lamps. Those levels are much lower than a typical summer's day, but present a potentially greater risk to a number of people with light-sensitive skin disorders. The European Commission's scientific committee on emerging and newly identified health risks—I, like the hon. Lady, will call it SCENIHR—estimates that up to 30,000 people in the UK are potentially at risk, but I accept that the figure is disputed and could be higher.

DEFRA and the Department of Health have been closely engaged with patients' support groups and charities, the lighting industry and the Health Protection Agency. In fact, as the lead DEFRA Minister, Lord Taylor of Holbeach, with whom the hon. Lady met, will shortly meet one such group—Spectrum, to which she referred—and I hope that the meeting will include the constituent she mentioned. The Department of Health and Health Protection Agency have fed evidence into SCENIHR's opinion on the health effects of artificial lighting, published in 2008, and its updated opinion, published in March this year. SCENIHR concluded that the use of double-envelope CFLs, which look like a traditional light lamp, can mitigate the risk of aggravating the symptoms of light-sensitive individuals. The hon. Lady has reported that there is some scepticism on that, and we have more work to do.

Anecdotal evidence suggests that halogens might be an adequate alternative in some cases. Most LEDs for general lighting emit little or no UV radiation. They therefore potentially offer an even better alternative. Nevertheless, the updated opinion recommended further research on the relationship between artificial lighting and various health conditions.

Sheila Gilmore *rose*—

Richard Benyon: I will give way very quickly, but I am coming to the key point.

Sheila Gilmore: Will the Minister clarify whether, while waiting for all the research to come to fruition, he is prepared to support an exemption that would enable people to get the lamps?

Richard Benyon: We are lobbying the Commission to bring the research forward before 2014. That is a key point that we want to get across. I will discuss the matter with my colleague, Lord Taylor, and he in turn will talk to Health Ministers to see if there is any wriggle room that will allow some form of exemption, such as the one that the hon. Lady described. I liked her suggestion about the possibility of using pharmacies. We are open-minded. What we do must be legal and recognise that there is a problem that we want to resolve.

The regulation includes a requirement for it to be reviewed before 2014, but we think that that should be done sooner. We will work with our European partners to ensure that the review takes full account of the best available scientific evidence on the health effects of artificial light. We are therefore pressing the Commission to ensure that the research is completed much earlier in order to feed into the review.

Energy efficient lighting, with other energy efficient products, can produce significant energy savings.

Joan Walley: I am listening hard to the Minister. Can he give my hon. Friend an indication of the time scale? Will he report back to her on the discussions that he intends to have with Lord Taylor about the health issues and what he referred to as the “wriggle room” within what is legal?

Richard Benyon: I will talk to Lord Taylor, as I agreed, subsequent to the debate. If the hon. Lady will allow me to say so, it will be for him to contact her and the hon. Member for Edinburgh East to see how we can take things forward. I recognise the genuine concerns that have been brought to the attention of the House through the early-day motion and today's debate. I assure the hon. Member for Edinburgh East that the Government take these matters seriously and we will seek to resolve the concerns of her constituent and our constituents who are affected.