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Brussels, 17 December 2007

Comments of Environmental NGOs

on the EC Working Document
on possible ecodesign requirements for fluorescent lamps without integrated
ballast, for ballasts and luminaires used with these lamps,
and on the conditions for the indication of suitability
of lighting products for office lighting

*In the context of Directive 2005/32/EC establishing a framework
for the setting of ecodesign requirements for energy using products
and as input to the Ecodesign Consultation Forum meeting of 18.12.2007*

Document reference: ECOS/EuP/2007-07

This document is based on inputs from ECOS, European Environmental Bureau (EEB), INFORSE-Europe, the Zero Mercury Working Group (ZMWG), Greenpeace and Ökopol.

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Introduction

ECOS, EEB, INFORSE-Europe, ZMWG, WWF European Policy Office and Greenpeace Europe (hereafter “*Environmental NGOs*”) **welcome and support the introduction of mandatory environmental requirements on tertiary and office lighting equipment.**

Lighting is a major source of power consumption in the EU and one where huge improvement potentials are possible thanks to new promising cost-effective technologies. In this sense Environmental NGOs expect very ambitious policies to radically transform the lighting market in a few years. High efficient lighting equipment (such as those based on LEDs) should rapidly become the standard lighting equipment. Halogen and incandescent lamps should be progressively banned and fluorescent lamps should be considered as a transitional technology as long as they contain and release mercury.

Environmental NGOs therefore regret that the EC Working Document on office lighting has not been drafted with enough intention to strongly promote the most efficient technologies such as high-efficient LED luminaires. We expect the European Commission to propose additional policies to speed-up the uptake of high efficient, long lasting and hazardous substances-free lighting technologies and ensure they find their way to the market more quickly. This is the only way that the lighting sector can adequately contribute to the challenging EU 2020 target on energy savings.

Environmental NGOs would also like to draw the European Commission’s attention on specific points regarding the Working Document.

1. Structure of the Working Document and exemptions

- Environmental NGOs globally favour ecodesign requirements relating to usage/function rather than to specific technologies. Especially in the case of old and energy inefficient technologies which should rather be explicitly phased out. However, bearing in mind the way the Ecodesign Directive has been drafted, they can understand the rationale of the approach chosen by the European Commission to treat lighting products (i.e. a series of Implementing Measures setting both requirements covering core technologies used in all types of applications, and requirements dedicated to a specific use to be met by all types of technologies). In this context, Environmental NGOs strongly suggest to the European Commission **to present rapidly a global overview of all the foreseen requirements for the whole lighting sector**, in order to spot potential gaps and understand how this “patchwork” is articulated.
- Environmental NGOs are also generally concerned that **the proposed Implementing Measure (IM) on office lighting lacks simplicity** in the way of setting its ecodesign requirements, and therefore might lead to difficult and insufficient market surveillance. Environmental NGOs therefore wonder if a horizontal ban of the lower grade lamps for office lighting would not be better (even if it might affect the availability of retrofit lamps during a certain period of time). The European Commission should compare more thoroughly the advantages and disadvantages of both approaches without concluding so rashly that a ban based on the energy labelling shall not be considered.

- As for luminaires, the setting of ecodesign requirements on energy efficiency should not be driven by concerns for the market share of one kind of ballasts or the other, but based for example on the least life cycle cost for consumers.

The setting of requirements on luminaires should also be based on the efficiency of the global system with all its components. This is why **Environmental NGOs welcome and support the LER approach** which introduces a “system thinking”. Requirements on LER encourage system optimisation and give clear guidance to professional lighting planning.

- Environmental NGOs do not understand the rationale to exempt from any ecodesign requirement lamps with a small diameter (which are inefficient according to the preparatory study), lamps with an external ignition strip (which are inefficient T12 lamps, according to the preparatory study), lamps under 1000 lm and adjustable luminaires. A low lumen device is still an EuP and should be covered. Environmental NGOs hope that reflector lamps will be covered and not only “*investigated*” under the domestic lighting IM (as the Working Document states in a similar way to the preparatory study wording).

- The preparatory study clearly recommended a phasing out of the T5 High Output lamps and the new luminaires equipped with such lamps, and suggested an indirect way by requiring that the lamp efficacy related to the lamp power should be equivalent to HE T5-lamps in new luminaires. The Working Document seems to adopt these efficacy numbers but does not refer anymore to the phasing out target. Could the Commission clarify that this is indeed the target, and does the Commission envisage to potentially accelerate the phasing out of these less efficient lamps when the IM is revised?

2. Insufficient provisions on waste and mercury

- Environmental NGOs appreciate that three major environmental aspects have been identified (energy, mercury and waste). **However these 3 aspects do not seem to have been explored in a balanced way since the mercury and waste requirements lack clarity and ambition.**

- The general requirements on waste (I.10. and II.4.) are too vague. In that form **they won't be enforceable nor verifiable**. So they need to be made more precise and based on specific requirements.

Environmental NGOs suggest to the EC to re-work the waste requirement on two bases:

- **a minimum requirement on lifespan** (or lamp survival factor) for all lamps on the market. This requirement would have to be ambitious enough to only promote long lasting lamps. The EC could also consider a supplementary requirement to exclude fluorescent lamps that don't resist frequent switching (or dimming).

- **a requirement on the recyclability and recycled content of luminaires**, especially those in plastics (e.g. a minimum percentage of recyclable/recycled in the bill of material). Provisions could also be considered on the packaging of lamps and luminaires (i.e. made of 100% of recycled material and fully recyclable).

- The requirement on mercury (I.4.) **fails to address the production phase, which can be as worrying as the use or end of life phases**. The preparatory study acknowledges on p. 114 that no data were collected regarding use and releases of mercury during production, so only the mercury in the lamps themselves has been considered to date. This failure to consider how the lamps are produced is a serious deficiency, since the amount of mercury released during the production process can exceed the amount of mercury in the lamps themselves (depending upon how the lamps are manufactured). So Environmental NGOs regret that the preparatory study undermined the production phase due to a lack of ground data. This concern is especially true for

lamps produced in countries where environmental policies are insufficiently enforced (e.g. 40 mg of mercury are sometimes used to produce a 36 W fluorescent tube in Chinese factories¹).

Thanks to the RoHS directive, some first improvements have been spotted in Chinese processes. The Ecodesign Directive offers another important opportunity to make further progress in this sector by, as a minimum, **prohibiting the lamps manufactured through the drip method**. Such requirement might prove difficult for Member States to monitor, but a strong signal needs to be sent to the manufacturers all around the world that the concern about mercury is still pending.

- As far as the mercury content in the product is concerned, Environmental NGOs **welcome the idea of phasing out halophosphate lamps and the recommendation of 2 mg**. However they wonder how far this recommendation would legally count in the revision of the RoHS and would like to see more solid wording in this IM.
- Environmental NGOs support the idea of limiting leakage of mercury (because many fluorescent lamps still end in landfills) but express scepticism about the **US EPA TCLP procedure to assess mercury leakages**. Firstly, it is only intended to measure potential impacts to groundwater. Since the primary release pathway of concern for mercury in this context is airborne, the procedure might be irrelevant from an Ecodesign point of view. Secondly, as the Explanatory Notes of the WD themselves mention, manufacturers have figured out how to eventually mask the presence of mercury in lamps by adding certain substances which interfere with the TCLP. Consequently, a requirement limiting mercury leaching might simply encourage manufacturers to add chemicals to their lamps instead of actually reducing the mercury content.
- Finally, Environmental NGOs suggest to use the opportunity of this IM on fluorescent lamps to improve the trend in their collection. Mercury also remains a major concern because too many lamps still end in landfills or incinerators. Environmental NGOs therefore ask the European Commission to commit to a better enforcement of the WEEE Directive provisions and **establish a stringent take back mechanism for office lamps** ensuring that recycling is made easier to users.

3. Lack of ambition on ballast efficiency

- Environmental NGOs believe **the energy requirements on ballasts are too lenient**. They are very similar to those in the 2000/55/EC directive and more pressure should be put to remove the less efficient products. Environmental NGOs do not understand nor support the rationale expressed in point I.6 of the Explanatory Notes (i.e. *inefficient ballasts are used on low cost luminaires for very cost sensitive consumers who might dislike the slightest increase in purchase price*). Such an argument is fully contradictory to the essence of the Ecodesign directive, aiming at ensuring the least life-cycle cost for consumers even if it means a higher purchase price with a lower operating cost. Moreover the Ecodesign process should not use hypotheses on the future behaviour of a group of consumers as an excuse to reject Ecodesign requirements. Such an uncertain approach would set a dangerous precedent.

If the European Commission truly fears that the so-called “*very cost sensitive consumers*” might shift to other less efficient solutions, then it should ensure that through the Ecodesign process such less efficient alternatives are phased out from the market or made less appealing.

- As far as ballast consumption in “off-mode” is concerned, Environmental NGOs consider **there is no reason to wait 3 years before requiring the 0.5 W limit**, as it corresponds to BAT and “off-mode” consumption is a pointless waste of energy.

¹ In 2006 the US based NGO Natural Resources Defense Council (NRDC) and China’s State Environmental Protection Administration (SEPA) collaborated on an investigation of mercury use in China’s lamp manufacturing sector. According to the report, three methods are potentially used to add mercury into fluorescent lamps: the drip method, a mercury pill and mercury amalgam. In China the drip method is the traditional and most commonly used method and also involves the highest mercury losses. Consequently, large quantities of mercury are released to the environment during lamp production in China.

4. Product information

- Environmental NGOs generally support the product information requirements for lamps, ballasts and luminaires. Consumers (public authorities, businesses or individuals) should be encouraged in all possible ways to become more aware of their lighting equipment and easily improve their procurement and buying habits.
- Environmental NGOs support the upgrading of the lamp energy labelling but **do not agree with the recommendation to name the new grades A+ and A++**. This approach has failed in other product groups and should be definitely abandoned, especially given that a global revision of the energy labelling scheme is due next year.

5. Specific requirements for office use (Annex II)

- Environmental NGOs support specific and application-oriented requirements for the use of lighting equipment in offices. It is a way of improving the accuracy and simplicity of the ecodesign provisions. However they are usually sceptical about “voluntary systems” and ask the European Commission to ensure such voluntary requirements will deliver as fast as any other mandatory requirements under the Ecodesign of EuPs Directive. A clear monitoring of the use of the voluntary indication of suitability should be included.
- Environmental NGOs also insist on the importance of ensuring compatibility of any new product on the market with presence detection and automatic dimming features, and suggest to better highlight those luminaires which incorporate such features in their design (for instance via a complementary indication “*suitable for fixed lighting in office tasks areas – and optimised to save energy through automatic features*”). Of course **such features should be consumer-friendly and easy to parameter and fix**. Consistency of the requirements on luminaires off-modes with such features should also be ensured, i.e. they should not discourage including such features, while requirements on off-mode shall of course be maintained for simple luminaires. The European Commission is also strongly encouraged by Environmental NGOs to look into the issue of **energy consumption in dimming states**. Some dimming equipment do not seem to be always that virtuous regarding energy efficiency. A first possible step could be mandatory consumer information, then leading in the future to specific Ecodesign requirements on the efficiency in dimmed modes.
- Environmental NGOs **strongly support the Recommendation** from the Commission for complementary measures to national, regional and local authorities, especially regarding green public procurement. However, this needs to be complemented by a dedicated awareness raising campaign. Most public authorities still dramatically lack clear and easy guidelines to green their procurement at the BAT level. A Recommendation alone might not be a sufficient tool to bring up the needed leverage effect.

6. Monitoring and future revision of the IM

- In order to facilitate the monitoring of these requirements and subsequent revisions of the IM, Environmental NGO believe it would be necessary to establish a **database of products put on the market with a binding reporting requirement for manufacturers and importers**. Information on efficacy and mercury content should be part of the properties reported. With such a database it would be possible for the Commission to assess the IM impact and foresee its revision.
- Environmental NGOs also fully support the reference to a date of revision in this IM. This date should be **no later than 5 years and even if there is no major technological progress** (because more stringent requirements will be needed whatsoever when 2020 approaches).