

**Comments of Germany**  
*on the Working document on possible measures targeting the energy  
efficiency of lighting in the tertiary sector*

Reference: Working Document presented by the Directorate General for Energy for consultation of the Consultation Forum running from 6 July to 15 September 2010

## **1. Proposed options**

Germany welcomes the Working document on possible measures targeting the energy efficiency of lighting in the tertiary sector. The commission presented two options which shall exploit further efficiency potentials for lighting of the tertiary sector which goes beyond regulation 245/2009 for fluorescent lamps without integrated ballast, for high intensity discharge lamps, and for ballasts and luminaires able to operate such lamps.

For some product groups such as lighting there are considerable additional saving potentials at the system level, which can not be sufficiently addressed by the ecodesign directive alone. These additional saving potentials can be exploited by appropriate planning and installation and intelligent lighting control. The commission indicates that the potential of addressing lighting at the system level (option B) is 80 to 90 TWh. This potential should be exploited as soon as possible.

A better system planning and installation does not automatically lead to better components which can exploit additional energy savings. Therefore also standards at the product level are necessary. According to the working document the saving potential for ecodesign and labelling requirements for tertiary sector luminaires (option A) is 30 to 45 TWh.

**We therefore support to develop appropriate proposals for option A as well as for option B.**

## **2. Comments on option A – Product Requirements**

Efficiency requirements on luminaires allow for significant saving potentials. This is in particular relevant for replacements of luminaires. As shown in the discussions in the first consultation forum on office lighting in 2007 there is not yet a feasible proposal for categorisation of luminaires. We therefore ask the commission to assess the possibilities and appropriateness for ecodesign and labelling requirements on the optical efficiency of luminaires. These should – as far as possible – be technology independent and tap the saving potential.

## **3. Comments on Option B – System requirements**

### Indoor Lighting:

Lighting is one of the main factors contributing to the primary energy demand of buildings. Existing limiting values for the overall primary energy consumption of a building do not provide a sufficient incentive for the installation of efficient lighting.

Furthermore the Energy Performance of Buildings Directive (EPBD) applies only to new buildings and major renovations. Therefore the exchange of the lighting system alone is not covered so that efficiency potentials remain untouched.

We therefore ask the commission to explore whether within the framework of the EPBD specific efficiency requirements on the lighting system can be set (1) for the installation in new buildings and (2) for the replacement of existing lighting systems.

### Outdoor Lighting:

For outdoor lighting there is no legislation in place which could be used to define mandatory requirements for the efficiency of the lighting systems. Neither the energy services directive nor criteria for green public procurement are the appropriate instruments for that purpose.

### Efficiency Requirements

The working document proposes that efficiency requirements could be of the type to define a cap on the average number kWh to be used by the lighting system to illuminate a 1 m<sup>2</sup> area over the period of one year [kWh/(m<sup>2</sup> × a)]. Due to different lighting purposes it may be necessary to describe different requirements for different types of use. We welcome this proposal and support the principle of such an efficiency index. A lighting system should be able to adapt to changing level of daylight and changing presence of persons. The reference to the provided level of illumination would not sufficiently encourage the use of intelligent lighting control. Therefore the demand of illumination should be considered.

### Conclusion

Lighting system regulation should cover all new indoor and outdoor lighting installations in the tertiary sector and should as far as possible be based on existing legislation. Where necessary, the Commission should assess possibilities for additional legal instruments. The specificities of enforcement of requirements at the system level need to be considered.

In general Germany supports standards that allow for achieving the existing saving potentials both at the product level and the system level.

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