

'ECOMise it': EBV Elektronik Presents Latest Update on EuP-Regulation Regarding 'Tertiary Sector Lighting Products'

The Second Regulation in the Lighting Sector Enters into Force

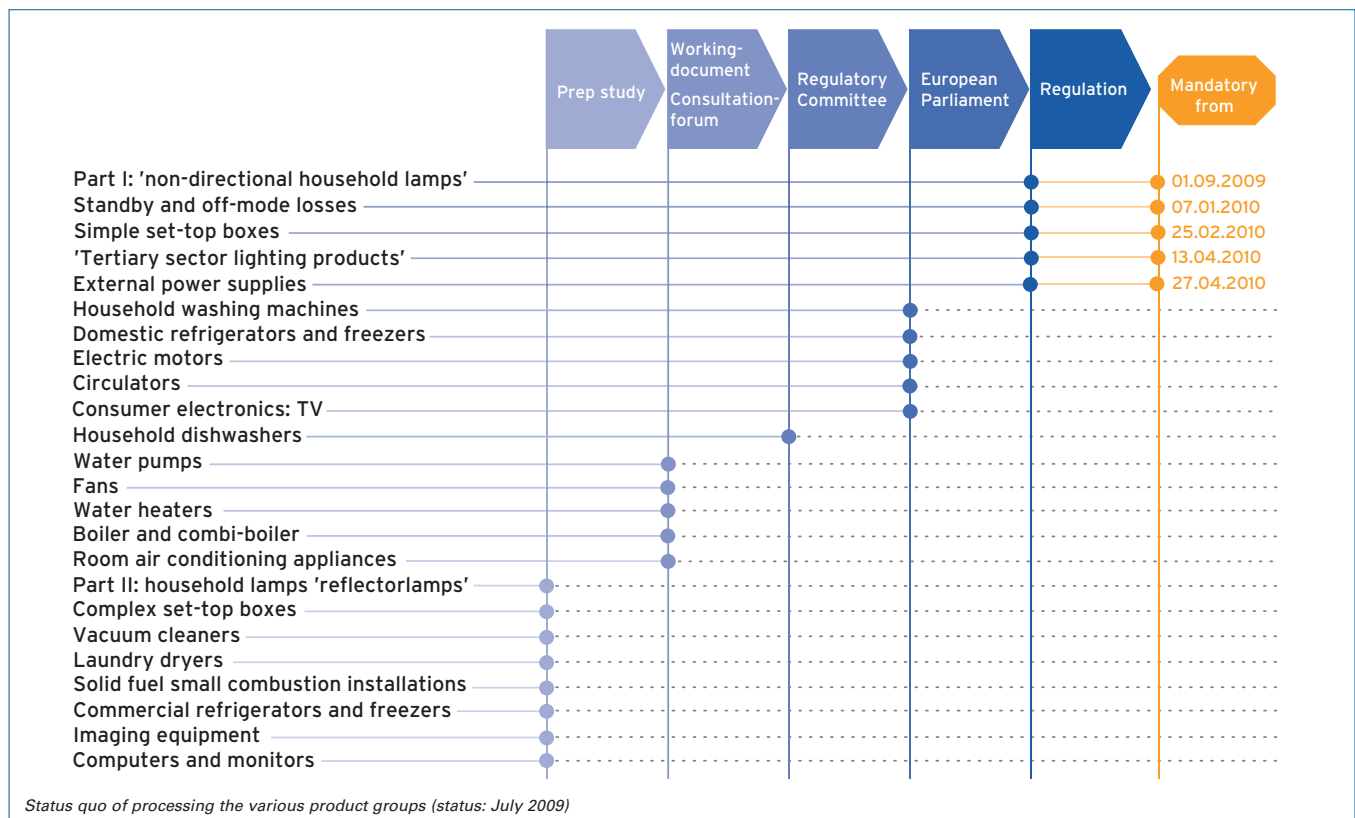
by Dr. Norbert Reintjes, Ökopol GmbH/EuP Consultant EBV Elektronik, July 2009

At the same time as the much-publicised EU Commission Regulation No. 244/2009/EC on general lighting, which was the subject of a previous article, the EU Commission approved a regulation with the number 245/2009/EC specifying minimum requirements to be fulfilled by lighting products normally used for commercial purposes. These specifications apply to fluorescent lamps frequently found in offices as well as to high-pressure discharge lamps commonly used in street lighting, and to the relevant ballast and luminaires.

The requirements in this very complex regulation primarily concern the efficiency of lamps, ballast and luminaires. Further performance parameters are also dealt with in the case of the lamps. Requirements in terms of product information concerning lamps, ballast and luminaires oblige manufacturers to provide consumers with extensive information.

Like the previous EuP regulations, the minimum requirements are to come into effect at different times. The first stage will come into effect one year after the regulation entered into force, i.e. from 13th April 2010; the second stage from April 2012, and the third stage from April 2017.

The efficiency requirements of the first stage apply to fluorescent lamps without integrated ballast. Depending on the lamp's shape and cap, the regulation specifies different minimum requirements with regard to the light output according to the lamp's power consumption. In some cases, lower threshold values apply to lamps with a higher colour temperature, higher colour rendering and second envelope. Stage 2 efficiency requirements also concern certain high-pressure sodium-vapour lamps and some metal halogenide lamps. Stage 3 also covers other high-pressure discharge lamps.



In addition to these requirements on their efficiency, lamps will be subject to certain criteria regarding their usage characteristics. Gradually and depending on the lamp type certain performance requirements are imposed on the lamps. These refer to the colour rendering (i.e. similarity of the light spectrum compared with the light from a light bulb), the lamp lumen maintenance factor (i.e. extent to which brilliancy is lost over time) as well as the lamp survival factor (i.e. lifetime).

In addition to the lamps, the new Commission Regulation No. 245/2009/EC also deals with ballasts and replaces Directive 2000/55/EC on Energy Efficiency Requirements for Ballasts for Fluorescent Lamps. The minimum ballast efficiency required depends on the technical parameters of the ballast and is also spread over three stages. Initially, the power consumption of the ballasts for fluorescent lamps must not exceed 1 watt (stage 1), subsequently 0.5 watts (stage 2) in no-load operation.

Concerning the luminaires the regulation requires among other things that the power consumption in no-load operation should not be greater than that of the integrated ballasts. No other components such as sensors need to be taken into account for measuring purposes. The requirement applies to luminaires for fluorescent lamps as early as stage 1. It does not apply to high-pressure discharge lamps until stage 2.

In addition to the technical requirements, the information to be supplied to consumers is also specified. Extensive information is to be provided regarding the individual components of the lighting system dealt with in the regulation (lamp, ballast, luminaire).

For information purposes, the regulation refers to numerous non-binding benchmarks that reflect the best available technology. While these initially concern the products regardless of their application, they also deal separately with office lighting and street lighting products.

Estimates claim that without these measures, annual power consumption for the products addressed by the regulation would rise to 200 TWh in 2020. The effect of the regulation is estimated to reduce the consumption of such products by 38 TWh in 2020. According to the EU Commission, the two lighting regulations already approved are to be supplemented by a further regulation dealing with directional household lamps that have not yet been covered. In addition to the regulations for lighting products, legally-binding minimum requirements have already been enforced throughout the EU as implementation measures for the ecodesign or

Regulation	245/2009/EC
Date of publication	24 th March 2009
Came into force on	13 th April 2009
Valid	13 th April 2010
Scope	Fluorescent lamps without integrated ballast, high-pressure discharge lamps, ballasts and luminaires for such lamps
Area of applicability	Energy efficiency, operating characteristics, product information

Schedule, scope and area of applicability of Commission Regulation No. 245/2009/EC

EuP Directive regarding stand-by and off mode consumption of electrical/electronic household and office devices, for simple set-top boxes and for external power supply units. Drafts of additional Regulations have already overcome all technical obstacles and are to be approved in 2009.

This article as well as a comprehensive description of the ecodesign Directive form part of a series of articles supported by EBV Elektronik. (Article dated 24th June 2009)

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