

# 'ECOmise it': EBV Elektronik Presents Latest Update on EuP-Regulation Regarding 'Domestic Refrigerators and Freezers'

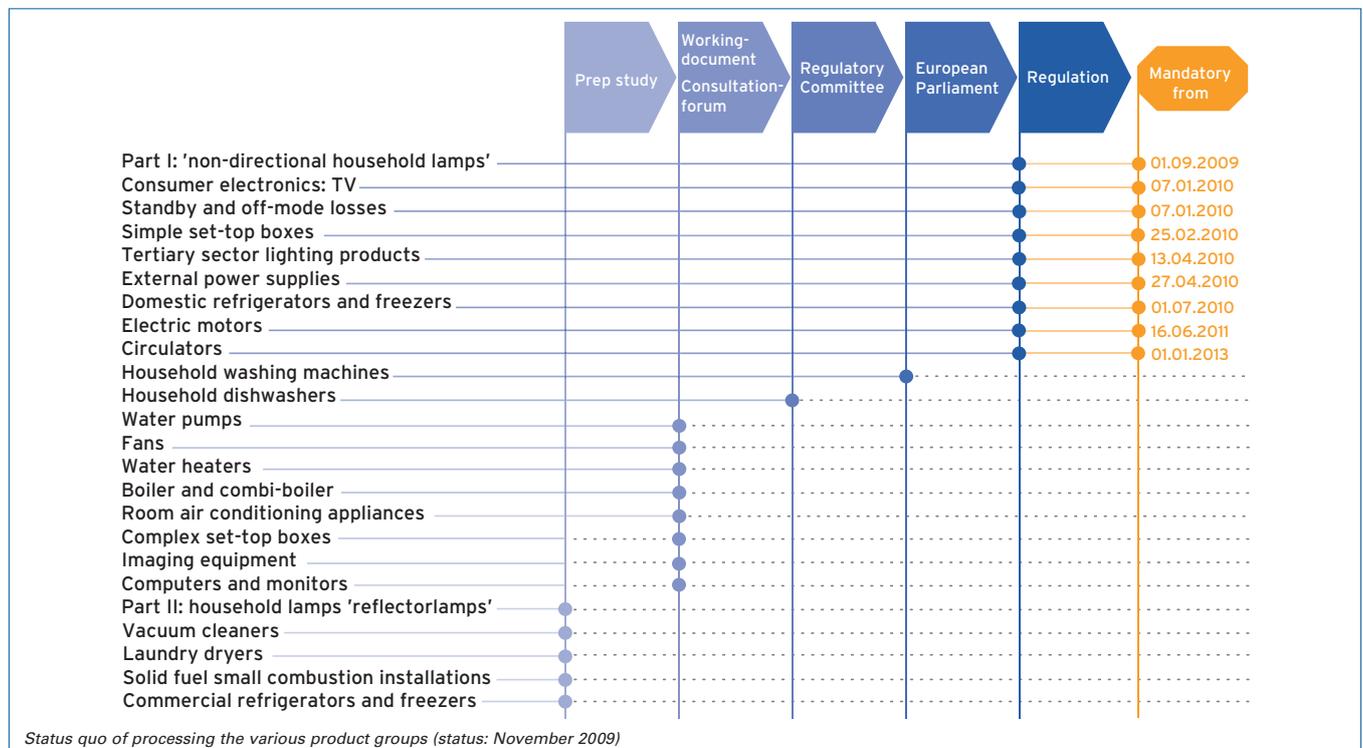
## End of the Line for Inefficient Refrigerators

by Laura Spengler, Ökopol GmbH/EuP Consultant EBV Elektronik, November 2009

From July next year, domestic refrigerators that do not meet the minimum requirements of the first stage of Regulation (EC) No 643/2009 may no longer be marketed in Europe. The Regulation was passed as an implementing measure of the Ecodesign Directive (2005/32/EC) and contains additional stages that increase the requirements regarding the energy efficiency of refrigerators incrementally up to 2015.

In a study commissioned by the EU Commission in preparation for the Regulation, refrigerators were identified as key consumers of electricity in the EU. In 2006, 99% of households in Europe were equipped with refrigerators and 54% with freezers. Specific figures regarding consumption are cited in the Regulation itself: according to this, the annual, EU-wide electricity consumption in 2005 of the products under analysis was some 122 TWh, which equates to emissions of 56 million tons of CO<sup>2</sup> equivalents.

The new Regulation aims to put a limit on the electricity consumption of refrigerators and is binding for a wide range of different appliances with volumetric capacities of up to 1,500 litres. Its scope of validity encompasses refrigerators and freezers as well as combinations of these. By covering compression and absorption refrigerators, the Regulation also encompasses different technologies. It defines requirements regarding not only energy efficiency but also the product information that must be provided by distributors. A range of additional requirements designed to minimise energy consumption have been formulated for certain functions and appliances (e.g. refrigerators with a very small volumetric capacity). On the basis of the energy consumption label, the energy efficiency of each refrigerator model will be calculated by means of a special procedure that takes into account not only the annual electricity consumption but also the volume of the compartments



and available options. Viewed in terms of the currently applicable classes indicated on the energy labelling, this means that only refrigerators that fulfil, at a minimum, the requirements of energy efficiency class A as of July 2010 and class A+ as of July 2014 will be permitted.

The generic ecodesign requirements will have an impact on the electronics contained in these appliances. For instance, the rapid freeze function must return to normal mode automatically after 72 hours. The Regulation also defines requirements regarding the 'winter settings' in certain appliances. Another requirement involving the electronics is that domestic refrigerators with a usable content of less than 10 litres must automatically switch to an operating mode with zero power consumption when they are empty.

For reference purposes, the Regulation also provides non-binding data on the best models currently available on the market in terms of energy efficiency and noise.

In addition to the Regulation outlined here, the EU Commission has published Regulations for televisions, electric motors and circulating pumps. This means that binding minimum standards for a total of nine product groups have been defined in the form of legally binding EC regulations as part of the implementation of the Ecodesign or EuP Directive. Further regulations are in preparation.

A comprehensive description of the Ecodesign Directive along with a description of the Regulations relating to the stand-by and off mode consumption of electrical and electronic household and office equipment (1275/2008), simple set-top boxes (107/2009), products for commercial lighting (245/2009) and household lighting (244/2009) as well as electric motors (640/2009) and circulating pumps (641/2009) were provided in a series of articles supported by EBV Elektronik.

Regulation	(EC) No 643/2009
Date of publication	23 <sup>rd</sup> July 2009
Date of entry into force	12 <sup>th</sup> August 2009
Effective	1 <sup>st</sup> July 2010
Scope	Domestic refrigerators and freezers
Area of applicability	Energy consumption, product information

*Schedule, scope and area of applicability of Regulation (EC) No. 643/2009*

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