



## **Manual of European Environmental Policy**

The following pages are a section from the Manual of European Environmental Policy written by the Institute for European Environmental Policy.

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# Energy using products

<b>Formal reference</b>	
<a href="#">2009/125/EC</a> (OJ L285 31.10.2009) Proposed 16.07.2008 – <a href="#">COM(2008)399</a>	Directive establishing a framework for the setting of Ecodesign requirements for energy-related products (recast)
<b>Legal base</b>	Article 114 TFEU (originally Article 100a EEC Treaty)
<b>Binding dates</b>	
Entry into force	20 November 2009
National provisions come into force	20 November 2010
Commission work plan	21 October 2011
Commission review of effectiveness	By 2012
<a href="#">2005/32/EC</a> (OJ L191 22.07.2005)	Directive establishing a framework for the setting of Ecodesign requirements for energy using products
Proposed 01.08.2003 – <a href="#">COM(2003)453</a>	
<b>Legal base</b>	Article 114 TFEU (originally Article 100a EEC Treaty)
<b>Binding dates</b>	
Entry into force	31 August 2005
National provisions come into force	11 August 2007
Commission work plan	6 July 2007
Commission review of effectiveness	6 July 2010
<a href="#">92/42/EEC</a> (OJ L167 22.6.1992)	Directive on efficiency requirements for new hot-water boilers fired with liquid or gaseous fuels
Proposed 29.10.90 – <a href="#">COM(90)368</a>	
<b>Legal base</b>	Article 114 TFEU (originally Article 100a EEC Treaty)
<b>Binding dates</b>	
Formal compliance	1 January 1993
National provisions to come into force	1 January 1994
<a href="#">96/57/EC</a> (OJ L236 18.9.1996)	Directive on efficiency requirements Proposed for household electric refrigerators, freezers and combinations thereof
Proposed 31.12.94 – <a href="#">COM(94)521</a>	
<b>Legal base</b>	Article 114 TFEU (originally Article 100a EEC Treaty)
<b>Binding dates</b>	
Formal compliance	3 September 1997
National provisions to come into force	3 September 1999
<a href="#">2000/55/EC</a> (OJ L279 1.11.2000)	Directive on energy efficiency requirements for ballasts for fluorescent lighting
<b>Legal base</b>	Article 114 TFEU (originally Article 100a EEC Treaty)
<b>Binding dates</b>	
Formal compliance	1 November 2001

National provisions to come into force and application of first phase standards	21 May 2002
Commission report on effectiveness	31 December 2005
Application of second phase standards	21 November 2006

## Purpose of the Directives

Three Directives under the [SAVE programme](#) set minimum efficiency requirements for new hot water boilers, for fridges and freezers, and for ballasts in fluorescent lighting, respectively. Late in 2001 the Commission approved new voluntary agreements with European manufacturers which would prevent the manufacture or import of high-consumption dishwashers and water heaters respectively. The Ecodesign Directive 2005/32/EC amends these Directives, intending to establish a more coherent framework for standards across Europe. Directive 2009/125/EC recast the original framework Directive, extending it to cover, in principle, all energy-related products.

## Summary of the Directives

### Directive 92/42/EEC

The Directive excludes instantaneous water heaters, combination stoves and other special categories. For all other boilers with outputs rated at between 4 and 400 kW, the Directive sets out detailed efficiency ratings at full and part load.

Member States in which back boilers and/or so-called ‘living space’ boilers are widely installed may continue to authorize these types at efficiency ratings up to 4 per cent lower than those required in the Directive for other types.

Requirements for conformity of production, and display of the CE conformity mark on all boilers to be authorized for sale, are set out. Member States must not inhibit the sale or installation of boilers that meet these criteria, and must take all necessary steps to prevent the sale or installation of those which do not. However, the Directive allowed any existing national standards to continue to be applied until the end of 1997.

Member States may optionally include an energy labelling element based on the efficiency standards set out in the Directive. This is a star rating system, for which the criteria and label design are specified in Annexes to the Directive.

### Directive 96/57/EC

The Directive establishes maximum standards of electricity consumption for house-hold fridges, freezers and fridge-freezers running on mains electricity, according to size and category. Testing and conformity assessment procedures are also set out.

Member States must take the necessary measures to ensure that only appliances meeting the specified standards can be placed on the Community market. Manufacturers and retailers must also ensure that new appliances meet the specified standards.

Member States must allow to be placed on the market any appliance bearing the 'CE' marking which is evidence of conformity with the requirements. They must presume that this marking indicates conformity unless they have evidence to the contrary. They must take all necessary measures to prevent the marketing of appliances which are not brought into conformity with the requirements of the Directive.

After four years (September 2000) the Commission must assess the effectiveness of the standards, with a view to a second stage if appropriate.

### **Directive 2000/55/EC**

The Directive establishes maximum standards for the consumption of electricity by ballasts for fluorescent lighting sources, either as a single component or as part of a luminaire, according to the category and the power of the lamp. Ballasts integrated in lamps, those designed specifically for luminaires to be mounted in furniture or those made for export are excluded from the scope of the Directive.

The other aspects of the Directive are similar to those of Directive 92/42/EEC and 96/57/EC. Member States and manufacturers must ensure that only appliances meeting the required standards are put on the market, and the 'CE' marking must be taken as evidence of conformity. Testing and conformity procedures are also set out. Annex III of the Directive contains the maximum standards to be applied in the first phase of the Directive, while Annex IV contains the standards for the second phase, which will apply from 21 November 2006. The Commission will produce a report on the effectiveness of the proposals by the end of 2005 and shall bring forward proposals to improve the energy efficiency of ballasts further, that is, a third phase, if appropriate.

### **Directive 2005/32/EC**

The Ecodesign Directive was meant to harmonize both the environmental and trade aspects of energy using products (EuPs). It was intended to avoid market fragmentation through dissimilar national environmental requirements. It aims to:

- Ensure the free movement of EuPs within the EU.
- Improve the overall environmental performance of these products and thereby protect the environment.
- Contribute to the security of energy supply and enhance the competitiveness of the EU economy.
- Preserve the interests of both industry and consumers.

The framework Directive is in principle applicable to any product using energy to perform the function for which it was designed, manufactured and put in the market. In principle all product types using any energy source are covered, except for vehicles, which are excluded. The Directive narrows this to uses that represent an important volume of sales in the EU market and an important environmental impact at European level. Another criterion is the potential for improvement, which should not entail 'excessive costs' and could take into account both existing legislation and pro-active initiatives from industry. Additional aspects (product performance, health and safety, impact on consumers, manufacturers' competitiveness) are integrated in the analysis.

The Directive amends the previous three Directives, above, by inserting Articles that make them implementing Directives of Directive 2005/32/EC, and subject to amendment by the comitology procedure. This means that their content did not change (except for an annex of the Directive on boilers); however, any further change to the Directives will be carried out in the framework of the decision-making mechanisms of the Ecodesign Directive.

The Directive does not introduce directly binding requirements, but does define a process, conditions and criteria for setting requirements regarding environmentally relevant product characteristics to be met for products to be placed on the market (such as energy consumption). The adoption comprises the following phases (per product): preparatory study, consultation forum, impact assessment, draft implementing measure (Commission Decision or Regulation), vote by the Regulatory Committee (with the reinforced scrutiny by the European Parliament) and finally adoption by the Commission. The same process applies to each product group and can last up to one year. One of the aims of the Directive is to establish a working plan setting out for the following three years an indicative list of product groups to be considered as priorities for the adoption of implementing measures. Preparatory studies have been carried out for the majority of the first set of priority products<sup>1</sup>.

### **Directive 2009/125/EC**

The Directive is a recast of Directive 2005/32/EC so that the legislation not only deals with EuPs such as washing machines, freezers or hair-driers, but that in the future, products such as windows, insulation materials or certain water using products like shower heads or taps are also included.

## **Development of the Directives**

### **Directive 92/42/EEC**

Solid fuel appliances and some other categories were excluded from the Directive owing to technical difficulties in measuring performance in a reliable and meaningful way. Gas and oil fired boilers were agreed to be the most important target group, as they are by far the most common.

### **Directive 96/57/EC**

The process of adoption of this Directive was lengthy and contentious. Even before the Commission proposal was first published, NGOs were criticizing it for being too lax, while the appliance manufacturers lobbied hard for relatively loose standards on grounds of cost and competition.

In October 1995, the Parliament voted for standards which would represent a 20 per cent improvement, as against the 10 per cent in the Commission's proposal, and a 40 per cent target for a second stage. The Commission then responded with a compromise figure of 15 per cent. This was adopted in the Council common position, but with a longer timescale for its introduction and other amendments.

## **Directive 2005/32/EC**

The Directive suffered from having two not entirely harmonious aims: reducing energy use from products, and harmonizing standards across Europe. The latter is primarily a single market issue that can as easily be reached by relaxing standards as by toughening them. Originally, the European Parliament demanded that the Directive at least partially rest on an environment legal base to avoid weakening standards, which was rejected by the Council. The Directive also allows voluntary agreements and self-Regulation to be given priority over Regulation if they are more efficient. By introducing the Comitology procedure for amending daughter Directives, including those existing measures amended to fall under Directive 2005/32/EC, there is the prospect of quicker tightening of standards based on technical criteria, rather than political deal making. The application of the regulatory procedure with scrutiny for the adoption of implementing measure under the Directive was agreed in July 2007.

## **Directive 2009/125/EC**

In July 2008 the Commission put forward a proposal for a Directive recasting 2005/32/EC to extend its scope to allow for the setting of Community Ecodesign requirements for all energy-related products. The intention was that the resulting comprehensive Ecodesign framework Directive should be an essential building block for an integrated sustainable environmental product policy, complemented by initiatives on labelling and incentives relating to public procurement and taxation. In addition to setting minimum requirements for energy-related products, the new framework Directive would, in line with the old Directive, enable the setting of environmental performance benchmarks, but now to a wider group of products. Such benchmarking was seen as important as it can form the basis for incentives relating to public procurement and taxation (COM(2008)399). In April 2009 the European Parliament adopted its first reading. This contained a number of amendments to the proposal and was the result of a compromise negotiated with the Council. The amendments mostly concerned the recitals. The emphasis is placed on the fact that there is a wide scope for improving environmental impact of EuPs through their design. Hence, the necessity to take into account the whole life cycle of the product to improve the energy use. It also mentions the role of energy efficiency as contributing to the security of the energy supply. The recast of 2005/32/EC was thus agreed by co-decision at first reading.

## **Implementation of the Directives**

Information on the measures taken by the Member States to transpose Directive 2005/32/EC can be found in their national [execution measures](#). There was some delay among some Member States in transposing Directive 2005/32/EC.

Article 16(1) requires the Commission to publish a work plan setting out an indicative list of priority product groups for the adoption of implementing measures for the next three years. In addition, the Directive contains a list of transitional priority product groups to be addressed between the entry into force of the Directive and the adaptation of the work plan. These had also been identified in the European Climate Change Programme (ECCP). In addition, a separate horizontal implementing measure was to be introduced to reduce stand-by losses for a group of products. Nineteen preparatory studies, along with the accompanying stakeholder meetings, were launched on transitional priority product groups. Each analysed whether and,

if so, which Ecodesign requirements should be set for the relevant product group. By October 2008, when the Commission published its work plan, 14 preparatory studies had been completed. On the basis of the results and in the absence of corresponding self-Regulation measures, the Commission began to draft implementing measures and, where suitable, labelling requirements under the Energy Labelling Directive 92/75/EEC for specific EuPs. An additional five preparatory studies were to be finalized during 2009 ([COM\(2008\)660](#)). Taking into account the work done under the transitional period, the 2008 work plan set out an indicative list of priority product groups and implementing measures for the period 2009–2011. A study was commissioned to support this selection, and from an initial total of 57 product groups, the following ten were identified: air-conditioning and ventilation systems; electric and fossil-fuelled heating equipment; food-preparing equipment; industrial and laboratory furnaces and ovens; machine tools; network, data processing and data storing equipment; refrigerating and freezing equipment; sound and imaging equipment; transformers; water using equipment (COM(2008)660).

For each product group, after the preparatory study, the so-called Consultation Forum is consulted; an assessment is made of the economic, environmental and social impact of the potential implementing measure, which is then adopted through the regulatory procedure with scrutiny. Table 1 gives the current state of play on each product group.

**Table 1. Planning of ecodesign and labelling implementing measures**

<b>Product group</b>	<b>Status</b>
Domestic lighting (general lighting equipment)	Regulation (EC) No 244/2009 (OJ L 76, 24.3.2009), amended by Regulation (EC) No <a href="#">859/2009</a> (OJ L 247 19.9.2009) Entry into force 13 April 2009. Amendment in force 1 September 2009
Simple set-top boxes	Regulation (EC) No <a href="#">107/2009</a> (OJ L 36 5.2.2009) Entry into force 25 February 2009
Domestic refrigerators and freezers	Regulation (EC) No <a href="#">643/2009</a> (OJ L 191 23.7.2009) Entry into force 12 August 2009 <a href="#">Corrigendum</a> (OJ L272 08.10.2010)
Circulators in buildings	Regulation (EC) No <a href="#">641/2009</a> (OJ L 191 23.7.2009) Entry into force 12 August 2009
Electric motors 1–150 kW	Regulation (EC) No <a href="#">640/2009</a> (OJ L 191 23.7.2009) Entry into force 12 August 2009
Tertiary lighting	Regulation (EC) No <a href="#">245/2009</a> (OJ L 76 24.3.2009) amended by Regulation (EU) No 347/2010 (OJ L 104, 24.4.2010) Entry into force 13 April 2009 Amendment in force 13 April 2010
Battery chargers and external power supplies	Regulation (EC) No <a href="#">278/2009</a> (OJ L 93 7.4.2009) Entry into force 27 April 2009
Standby and off-mode losses of EuPs	Regulation (EC) No <a href="#">1275/2008</a> (OJ L 339 18.12.2008) Entry into force 7 January 2009
Televisions	Regulation (EC) No <a href="#">642/2009</a> (OJ L 191 23.7.2009) Entry into force 12 August 2009



Domestic washing machines	Regulation (EU) No <a href="#">1015/2010</a> (OJ L 293 11.11.2010) Entry into force 30 November 2010 <a href="#">Corrigendum</a> (OJ L298 16.11.2010)
Medical imaging equipment	Consultation Forum 17 November 2009
Machine tools	Consultation Forum 17 November 2009
Complex set-top boxes	Consultation Forum 12 October 2009
Domestic dishwashers	Regulation (EU) No <a href="#">1016/2010</a> (OJ L 293 11.11.2010) Entry into force 30 November 2010
Fans driven by motors with an electric input power between 125 W and 500 kW	Regulation (EU) No <a href="#">327/2011</a> (OJ L90 6.4.2011) Entry into force 26 April 2011
Electric pumps	Regulatory Committee Autumn 2010
Room air conditioning appliances	Consultation Forum 23 April 2010
Imaging equipment	Consultation Forum 12 October 2009
Personal computers and computer monitors	Regulatory Committee Autumn 2010
Water heaters	Regulatory Committee Autumn 2010
Boilers and combi-boilers	Regulatory Committee Jan 2011
Laundry driers	Consultation Forum 25 June 2010
Commercial refrigerators and freezers	Consultation Forum 23 April 2010
Sound and imaging equipment	Study ongoing
Distribution and power transformers	Study ongoing
Refrigerating and freezing equipment	Study ongoing
Networked standby losses	Study ongoing
Non-tertiary coffee machines	Study ongoing
Professional wet appliances and dryers	Study ongoing
Domestic and commercial hobs and grills	Study ongoing
Domestic and commercial ovens	Study ongoing
Central heating products (other than CHP)	Study ongoing
Local room heating products	Study ongoing
Directional lighting	Consultation Forum expected in Autumn 2010
Vacuum cleaners	Consultation Forum Study ongoing
Solid fuel small combustion installations	Study ongoing
Tertiary air conditioning	Study ongoing
Industrial ovens	Study ongoing

## Enforcement and court cases



No cases relating to Directives 2005/32/EC or 2009/125/EC have been concluded by the European Court of Justice.

## Related legislation

The following legislation interacts with Directive 2005/32/EC and 2009/125/EC:

- Decision [1230/2003/EC](#) adopting a multiannual programme for action in the field of energy: ‘Intelligent Energy – Europe’ (2003–2006).
- Directive [92/75/EEC](#) on energy labelling.

## Reference

1 More information on developments of the Ecodesign Directive can be found here: CEC, Ecodesign, Commission ebpage, [http://ec.europa.eu/energy/demand/legislation/eco\\_design\\_en.htm](http://ec.europa.eu/energy/demand/legislation/eco_design_en.htm)