

Title of the measure:	GER78 EU-related: Recast Ecodesign Directive for Energy-related Products (Directive 2009/125/EC) - Energiebetriebene-Produkte-Gesetz – EBPG (revised version)
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General description

Apart from the user's behaviour, there are two complementary ways of reducing the energy consumed by products: the labelling to raise the awareness of consumers and the energy efficiency requirements imposed to products on the design phase.

The production, distribution, use and end-of-life management of energy-related products (ErPs) is associated with important impacts on the environment, such as the consequences of energy and other materials/resources consumption, waste generation and release of hazardous substances. It is estimated that over 80% of all product-related environmental impacts are determined during the design phase of a product.

The Ecodesign Directive provides with consistent EU-wide rules for improving the environmental performance of energy related products (ERPs) through ecodesign - brochure. It prevents disparate national legislations on the environmental performance of these products from becoming obstacles to the intra-EU trade. This should benefit both businesses and consumers, by enhancing product quality and environmental protection and by facilitating free movement of goods across the EU.

Energy related products (the use of which has an impact on energy consumption) account for a large proportion of the energy consumption in the EU and include:

- **Energy-using products (EUPs)**, which use, generate, transfer or measure energy (electricity, gas, fossil fuel), such as boilers, computers, televisions, transformers, industrial fans, industrial furnaces etc.
- **Other energy related products (ERPs)** which do not use energy but have an impact on energy and can therefore contribute to saving energy, such as windows, insulation material, shower heads, taps etc. The Directive is under the responsibility of DG Enterprise and Industry and DG Energy.

The Ecodesign Directive is a framework Directive: it does not set binding requirements on products by itself, but through implementing measures adopted on a case by case basis for each product group. All guiding principles for developing implementing measures are set in the framework Directive 2009/125/EC. The list of product groups to be addressed through implementing measures is established in the periodic Working Plan. Standardisation supports the implementation of the Ecodesign Directive (notably through harmonised standards giving presumption of conformity with all or some Ecodesign legal requirements).

The federal government has implemented the EU's Eco-design Directive (2005/32/EC) in German law by means of the Energy-using Products Act (EBPG). The Eco-design Directive constitutes the framework for the establishment of harmonised standards in respect of environmentally compatible design of energy-using products within the EU. With the revised version of the Eco-design Directive (2009/125/EC) its area of application has been extended to include all products relevant to energy consumption. The Energy-using Products Act (EBPG) essentially deals with rulings on the implementation of the product-specific implementing measures issued by the European Commission, which specify to the manufacturers of energy-using products targets for improvement of their products and minimum requirements in respect of environmentally- friendly design of products. Besides this the Act contains regulations about market supervision in Germany.

Impact evaluation (methods and results)

The measure was evaluated in BMUB 2017 with the result as shown below.

	2015	2020	2025	2030	2035
<i>BMUB 2017 (savings since new label in 2010):</i>					
Yearly new savings (PJ)	20.5	53.6	71.6	74.5	82.1

Impact evaluation of energy savings by ecodesign directive has been assessed in 2nd NEEAP of Germany in terms of specific implementing measures and the results are as followed;

Table 1: Energy-using Products Act (EBPG): implementing measure for electric motors

Regulatory law	Start: 2009	End: not planned	
Description	<p>The federal government has implemented the EU's Eco-design Directive (2005/32/EC) in German law by means of the Energy-using Products Act (EBPG). The Eco-design Directive constitutes the framework for the establishment of harmonised standards in respect of environmentally compatible design of energy-using products within the EU. With the revised version of the Eco-design Directive (2009/125/EC) its area of application has been extended to include all products relevant to energy consumption. The Energy-using Products Act (EBPG) essentially deals with rulings on the implementation of the product-specific implementing measures issued by the European Commission, which specify to the manufacturers of energy-using products targets for improvement of their products and minimum requirements in respect of environmentally-friendly design of products. Besides this the Act contains regulations about market supervision in Germany. The bill seeking to adapt the Energy-using Products Act (EBPG) to comply with Directive 2009/125/EC is currently going through parliament (coming into effect expected in November 2011).</p> <p>With the implementing measure on electric motors, minimum standards in respect of the efficiency of electric motors were stipulated in several stages (2011, 2015, 2017). From 2015/2017 there is the option, instead of highly efficient (IE3) engines, to use variable-speed drive units in combination with IE2 engines. The measure affects all engines put into circulation in the EU.</p>		
Energy saving (total, power = 1)	Early action (1995–2007)	Current period (2008–2010)	Forecast (2008–2016)
10.5 PJ	–	0.1 PJ	10.5 PJ
Reference	EBPG 2008; Fraunhofer ISI 2011		

Table 2: Energy-using Products Act (EBPG): implementing measures for electrical appliances in private households

Regulatory law	Start: 2009	End: not planned		
Description	<p>Implementation in German law of the revised EU Eco-design Directive (2009/125/EC) (not yet carried out). Implementing measures for the setting of minimum requirements for the following energy-using appliances in private households:</p> <ul style="list-style-type: none"> → Simple set-top boxes (02/2009) → Lighting (03/2009) → Televisions (07/2009) → Heating loop recirculation pumps (07/2009) → Domestic refrigerators and freezers (07/2009) → Domestic washing machines (11/2010) → Domestic dishwashers (11/2010) <p>The implementing measure for standby (12/2008) is included in the calculation of the appliances' energy savings; the implementing measure for external power supply (04/2009) is not taken into account by contrast.</p>			
Energy saving (total)	Early action (1995-2007)	Current period (2008-2010)	Forecast (2008-2016)	
CF=1	16.4 PJ	-	3.5 PJ	16.4 PJ
Reference	Fraunhofer ISI 2011, based on Schmidt-Sercander 2010			

Table 3: Energy-using Products Act (EBPG): implementing measures for electrical appliances in the TRS sector

Regulatory law	Start: 2009	End: not planned		
Description	<p>Implementation in German law of the revised EU Eco-design Directive (2009/125/EC) (not yet carried out). Implementing measures with setting of minimum requirements for the following energy-using appliances in the TRS sector:</p> <ul style="list-style-type: none"> → Lighting (03/2009) → Heating loop recirculation pumps (07/2009) <p>The implementing measure for standby (12/2008) is included in the calculation of the appliances' energy savings; the implementing measure for external power supply (04/2009) is not taken into account by contrast. In addition to this energy savings from other household appliances used in the TRS sector for which an implementing measure already exists were not taken into account due to lack of data availability.</p>			
Energy saving (total)	Early action (1995-2007)	Current period (2008-2010)	Forecast (2008-2016)	
CF=1	10.5 PJ	-	0.0	10.5 PJ
Reference	Fraunhofer ISI 2011, based on Schmidt-Sercander 2010			

Following table summarizes the final energy savings by Ecodesign legislation;

Table 4: Assessment of final energy savings by Ecodesign

Energy using Product Act (EBPG)	2 nd NEEAP of Germany				
	1995-2007	2008-2010	2008-2013	2008-2016	1995-2016
Final Energy (PJ)					
Implementing measures electric motors	-	0.1	1.8	10.5	10.5
Implementing measures HH	-	3.5	10.8	16.4	16.4

electrical appliances					
Implementing measures Tertiary electrical appliances	-	0.0	8.4	10.5	10.5

References

BMWi 2011 (Federal Ministry of Economics and Technology) 2nd. National Energy Efficiency Action Plan (NEEAP) of the Federal Republic of Germany in accordance with the EU Directive on Energy End-use Efficiency and Energy Services (2006/32/EC) and the Act on Energy Services and other Energy Efficiency Measures (Energiedienstleistungsgesetz, EDL-G). July 2011 (<http://www.bmwi.de/Dateien/BMWi/PDF/zweiter-nationaler-energieeffizienz-aktionsplan-der-brd.pdf>)

BMUB (Federal Ministry for the Environment, Nature Conservation, Buildings and Nuclear Safety). Projection report 2017. Greenhouse gas reporting. April 2017. <http://www.bmub.bund.de/service/klima-klimaschutz-download/artikel/projektionsbericht-der-bundesregierung-2017/> (at the moment only available in German)

Enterprise and Industry – Industry

<http://ec.europa.eu/enterprise/policies/sustainable-business/ecodesign/>

Enterprise and Industry – Ecodesign Legislation

http://ec.europa.eu/enterprise/policies/sustainable-business/documents/ecodesign-legislation/index_en.htm

Energy Efficiency - Eco-design of Energy-Related Products

http://ec.europa.eu/energy/efficiency/ecodesign/ecodesign_en.htm