

Title of the measure:	EU 62 Ecodesign Directive for Energy-using Products (Directive 2005/32/EC)
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Scope and Objective

The Ecodesign Directive (2005/32/EC) sets a framework for establishing the ecodesign requirements of energy-using products (EuPs) with the intention of free movement of those products within the internal market. The directive put forward the requirements which the energy-using products covered by the implementing measures have to fulfill in order to be placed on the market and/or put into service which in turn contributes to sustainable development by enhancing energy efficiency and the level of protection of environment while simultaneously increasing the security of energy supply. The directive was amended by the directive 2008/28/EC of the European Parliament and of the Council of 11 March 2008.

Placing EuPs on the market and/or putting into service

Member states are obliged to make sure that EuPs covered by the implementation measures may be placed on the market and/or put into service only if they conform with those measures and bear the CE marking. Member states are to appoint authorities responsible for market surveillance.

Marking and Declaration of Conformity

Prior to the placement of an EuP covered by the implementing measures and/or putting into service, a CE conformity marking shall be affixed and a declaration of conformity issued whereby the manufacturer or respective representative authority makes sure and declares that EuP complies with all the relevant provisions of implementing measures.

Free Movement

Member states should not forbid or limit the placing on the market and/or putting into service within their territories, of an EuP that complies with all the relevant provisions of the applicable implementing measures and bears the CE marking.

Product Safeguard

If a product bearing CE and is used in accordance with its intended use does not comply with all the relevant provisions of the applicable implementing measure, the manufacturer of the product should be obliged to make the product conform with the provisions of the applicable implementing measure and to end the infringements under conditions defined by the member state.

Conformity Assessment and Harmonized Standards

Manufacturer or its authorized representative should ensure that an assessment of the product's conformity is carried out with all the relevant provisions of the applicable implementing measure before placing a product which is covered by implementing measures in to market and/or putting in to the service. The procedures for the conformity assessment shall be stated by the implementing measures and may be left to manufacturers the option between the internal design control specified in Annex IV and the management system set out in Annex V. In case of strong indications of product non-compliance, member state shall at earliest publish an assessment of product's compliance for timely rectification.

Impact Assessment

Impact assessment on the implementation of the directive 2005/32/EC has been carried out by the EC with respect to the specific product categories;

- SEC(2009) 114 and SEC(2009) 113 deals with the impact assessment of the regulation for ecodesign requirements for simple set-top boxes. According to SEC(2009) 113, the accumulated electricity consumption of SSTBs can be reduced by approx. 47 TWh until 2020 compared to a business-as-usual/no-action scenario. This energy saving translates into 7.2 billion EURO saved and 17 Mt of CO₂ abated.
- Sec(2009) 324 and SEC(2009) 325 deals with the impact assessment of regulation for the ecodesign requirements for fluorescent lamps without integrated ballast, for high intensity discharge lamps, and for ballasts and luminaires able to operate such lamps. According to SEC(2009) 325 estimates the annual electricity consumption by 2020 will be reduced by at least 38 TWh compared to baseline scenario (and up to 46.5 TWh less if new installations were set at the level of the identified benchmarks). Accumulated electricity savings can be 193 TWh which corresponds to 77 Mt of CO₂ savings.
- SEC(2009) 327 and SEC(2009) 328 deals with the impact assessment of regulation for the ecodesign requirements for non-directional household lamps. The report SEC(2009) 328 puts following options compared to business as usual;

Sub-option	Lamps allowed		Remaining Problems not solved by the option	EU-27 yearly energy savings in 2020	Net cost saving / household yearly in 2020
	Transparent	Frosted			
1	–	CFLs	No bright point light source available Partial compatibility with existing luminaires Probably no replacement to EU GLS production Often not dimmable Alleged health issues Sub-optimal quality and performance Mercury content	86 TWh	59 €
2a	Halogen B *	CFLs **	Partial compatibility with existing luminaires Probably no replacement to EU GLS production * No equivalent to transparent GLS > 60W * Only one producer currently for GLS retrofit ** Often not dimmable ** Alleged health issues ** Sub-optimal quality and performance ** Mercury content	51 TWh	31 €
2b	Halogen B * Halo socket C	CFLs **	Probably no replacement to EU GLS production * No equivalent to transparent GLS > 60W * Only one producer currently for GLS retrofit ** Often not dimmable ** Partial compatibility with existing luminaires ** Alleged health issues ** Sub-optimal quality and performance ** Mercury content	39 TWh	22 €
2c	Halogen B Halo socket C Halo retro C	CFLs **	** Often not dimmable ** Partial compatibility with existing luminaires ** Alleged health issues ** Sub-optimal quality and performance ** Mercury content	33 TWh	19 €
3	Halogen B Halo socket C Halo retro C	CFLs Halogen B Halo socket C Halo retro C	<i>This option satisfies all possible comfort criteria, as frosted halogen lamps remain available, offering the same service as frosted incandescents.</i>	22 TWh	10 €

Report concludes that Option 2b strikes the adequate balance between optimizing energy savings, offering ample alternatives in terms of functionality and minimizing negative economical, social and environmental impacts.

- SEC(2009) 434 and SEC(2009) 435 deals with the impact assessment of regulation for the ecodesign requirements for no-load condition electric power consumption and average active efficiency of external power supplies. According to SEC(2009) 435, compared to a "no action" scenario, by 2020 the regulation will lead to annual savings of 9 TWh of electricity consumption in the Community, corresponding to 3.6 Mt of CO₂ emissions, and additional 118 PJ gross energy savings related to production/distribution of EPS due to reduced material content/weight.
- SEC(2009) 1013 and SEC(2009) 1014 deals with the impact assessment of regulation for the ecodesign requirements for electric motors. According to SEC(2009) 1014, by 2020, the annual electricity consumption of motors will be reduced by 139 TWh compared to a business as usual scenario. Due to motor life of 20 years for big motors, these savings will reach 1573 TWh by 2025, which is close to half of the EU electricity consumption in 2007.
- SEC(2009) 1016 and SEC(2009) 1017 deals with the impact assessment of ecodesign requirements for glandless standalone circulators and glandless circulators integrated in products. The report SEC(2009) 1017 assesses following options;

Table 2: Savings			
Electricity and savings 2020 in TWh sub options vs. BaU			
	Use	Savings	
	TWh/a	TWh	%
BaU	55.3	-	-
Sub. opt. 1: EEI,new \leq 0.30 from 2015	40.6	14.7	26
Sub. opt. 2: EEI,new \leq 0.23 from 2012	26.8	28.5	52
Sub. opt. 3: EEI,new \leq 0.27 from 2012 + EEI,new \leq 0.23 from 2015	28.7	26.6	48
Sub. opt. 4: EEI,new \leq 0.23 from 2012 + EEI,new \leq 0.19 from 2015	26.5	28.8	52
Expenditure and savings 2020 in EUR sub options vs. BaU			
	Expenditure	Savings	
	(€ billion)	€ billions	%
BaU	17.3	-	-
Sub. opt. 1: EEI,new \leq 0.30 from 2015	15.1	2.2	13
Sub. opt. 2: EEI,new \leq 0.23 from 2012	13.0	4.3	25
Sub. opt. 3: EEI,new \leq 0.27 from 2012 + EEI,new \leq 0.23 from 2015	13.4	3.9	23
Sub. opt. 4: EEI,new \leq 0.23 from 2012 + EEI,new \leq 0.19 from 2015	13.6	3.7	22
CO2 eq emissions and savings 2020 sub options vs. BaU			
	Use	Savings	
	CO2 eq/a	CO2 eq/a	%
BaU	25.3	-	-
Sub. opt. 1: EEI,new \leq 0.30 from 2015	18.6	6.6	26
Sub. opt. 2: EEI,new \leq 0.23 from 2012	12.3	13.0	52
Sub. opt. 3: EEI,new \leq 0.27 from 2012 + EEI,new \leq 0.23 from 2015	13.1	12.2	48
Sub. opt. 4: EEI,new \leq 0.23 from 2012 + EEI,new \leq 0.19 from 2015	12.1	13.2	52

The report concludes that the preferred choice in terms of life cycle cost is the second sub-option.

- SEC(2009) 1011 and SEC(2009) 1012 deals with the impact assessment of regulation for the ecodesign requirements for televisions. According to SEC(2009) 1012, the combined effects lead to market transformation may lead significant annual energy savings of 43 TWh by 2020 related to on-mode power consumption, assuming an annual improvement triggered by energy labelling of 4%, corresponding to 15 Mt CO2 emissions, compared to a business as usual scenario with an expected on-mode electricity consumption of 130 TWh by 2020.
- SEC(2009) 1020 and SEC(2009) 1021 deals with the impact assessment of ecodesign requirements for household refrigerating appliances. According to SEC(2009) 1021 following options were assessed;

- **BAU:** Business-as-usual scenario, i.e. continuation of current Community policy measures (current labelling scheme only) and no further action at EU level;
- **Sub-option EE44-15:** EEI⁹<55 in 2010, EEI<44 in 2015;
- **Sub-option EE44-13:** EEI<55 in 2010, EEI<44 in 2013;
- **Sub-option EE42-15:** EEI<55 in 2010, EEI<42 in 2015;
- **Sub-option EE42-13:** EEI<55 in 2010, EEI<42 in 2013.
- **Sub-option EE44/42-12/14:** EEI<55 in 2010, EEI<44 in 2012 and EEI<42 in 2014.

Report concludes that the cost-effective level of energy consumption is reached, with a savings potential of 4 TWh in 2020 compared to the BaU scenario, increasing to 12 TWh in 2025 if sub-option EE44/42-12/14 is implemented.

Accumulated optimal savings of all the above products:

- 347.5 TWh
- 136.6 MtCO₂

References

- Directive 2005/32/EC of the European Parliament and of the Council of 6 July 2005 establishing a framework for the setting of ecodesign requirements for energy-using products and amending Council Directive 92/42/EEC and Directives 96/57/EC and 2000/55/EC of the European Parliament and of the Council
<http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2005:191:0029:0058:EN:PDF>
- SEC(2009) 114 - Commission Regulation implementing Directive 2005/32/EC with regard to ecodesign requirements for simple set-top boxes IMPACT ASSESSMENT
http://ec.europa.eu/governance/impact/ia_carried_out/docs/ia_2009/sec_2009_0114_en.pdf
- SEC (2009) 113 - Commission Regulation implementing Directive 2005/32/EC with regard to ecodesign requirements for simple set-top boxes IMPACT ASSESSMENT SUMMARY
http://ec.europa.eu/governance/impact/ia_carried_out/docs/ia_2009/sec_2009_0113_en.pdf
- SEC(2009) 324 - Commission Regulation implementing Directive 2005/32/EC of the European Parliament and of the Council with regard to ecodesign requirements for fluorescent lamps without integrated ballast, for high intensity discharge lamps, and for ballasts and luminaires able to operate such lamps, and repealing Directive 2000/55/EC of the European Parliament and of the Council FULL IMPACT ASSESSMENT
http://ec.europa.eu/governance/impact/ia_carried_out/docs/ia_2009/sec_2009_0324_en.pdf
- SEC(2009) 325 - Commission Regulation implementing Directive 2005/32/EC of the European Parliament and of the Council with regard to ecodesign requirements for fluorescent lamps without integrated ballast, for high intensity discharge lamps, and for ballasts and luminaires able to operate such lamps, and repealing Directive 2000/55/EC of the European Parliament and of the Council IMPACT ASSESSMENT SUMMARY
http://ec.europa.eu/governance/impact/ia_carried_out/docs/ia_2009/sec_2009_0325_en.pdf

- SEC(2009) 327 - Commission Regulation implementing Directive 2005/32/EC of the European Parliament and of the Council with regard to ecodesign requirements for nondirectional household lamps

FULL IMPACT ASSESSMENT

http://ec.europa.eu/governance/impact/ia_carried_out/docs/ia_2009/sec_2009_0327_en.pdf

- SEC(2009) 328 - Commission Regulation implementing Directive 2005/32/EC of the European Parliament and of the Council with regard to ecodesign requirements for nondirectional household lamps

IMPACT ASSESSMENT SUMMARY

http://ec.europa.eu/governance/impact/ia_carried_out/docs/ia_2009/sec_2009_0328_en.pdf

- SEC(2009) 434 - Commission Regulation implementing Directive 2005/32/EC with regard to ecodesign requirements for no-load condition electric power consumption and average active efficiency of external power supplies

IMPACT ASSESSMENT

http://ec.europa.eu/governance/impact/ia_carried_out/docs/ia_2009/sec_2009_0434_en.pdf

- SEC(2009) 435 - Commission Regulation implementing Directive 2005/32/EC with regard to ecodesign requirements for no-load condition electric power consumption and average active efficiency of external power supplies

IMPACT ASSESSMENT SUMMARY

http://ec.europa.eu/governance/impact/ia_carried_out/docs/ia_2009/sec_2009_0435_en.pdf

- SEC(2009) 1013 - Commission Regulation implementing Directive 2005/32/EC of the European Parliament and of the Council with regard to ecodesign requirements for electric motors

FULL IMPACT ASSESSMENT

http://ec.europa.eu/governance/impact/ia_carried_out/docs/ia_2009/sec_2009_1013_en.pdf

- SEC(2009) 1014 - PROPOSAL FOR A COMMISSION REGULATION implementing Directive 2005/32/EC with regard to motors SUMMARY IMPACT ASSESSMENT

http://ec.europa.eu/governance/impact/ia_carried_out/docs/ia_2009/sec_2009_1014_en.pdf

- SEC(2009) 1016 - PROPOSAL FOR A COMMISSION REGULATION implementing Directive 2005/32/EC with regard to Ecodesign requirements for circulators FULL IMPACT ASSESSMENT – PART 1

http://ec.europa.eu/governance/impact/ia_carried_out/docs/ia_2009/sec_2009_1016_en.pdf

- SEC(2009) 1017 - Commission Regulation implementing Directive 2005/32/EC of the European Parliament and of the Council with regard to ecodesign requirements for circulators SUMMARY OF IMPACT ASSESSMENT

http://ec.europa.eu/governance/impact/ia_carried_out/docs/ia_2009/sec_2009_1017_en.pdf

- SEC(2009) 1011 - Commission Regulation implementing Directive 2005/32/EC with regard to ecodesign requirements for televisions FULL IMPACT ASSESSMENT

http://ec.europa.eu/governance/impact/ia_carried_out/docs/ia_2009/sec_2009_1011_en.pdf

- SEC(2009) 1012 - Commission Regulation implementing Directive 2005/32/EC with regard to ecodesign requirements for televisions IMPACT ASSESSMENT SUMMARY

http://ec.europa.eu/governance/impact/ia_carried_out/docs/ia_2009/sec_2009_1012_en.pdf

- SEC(2009) 1020 - PROPOSAL FOR A COMMISSION REGULATION implementing Directive 2005/32/EC with regard to household refrigerating appliances FULL IMPACT ASSESSMENT

http://ec.europa.eu/governance/impact/ia_carried_out/docs/ia_2009/sec_2009_1020_en.pdf

- SEC(2009) 1021 - PROPOSAL FOR A COMMISSION REGULATION implementing Directive 2005/32/EC with regard to household refrigerating appliances SUMMARY IMPACT ASSESSMENT

http://ec.europa.eu/governance/impact/ia_carried_out/docs/ia_2009/sec_2009_1021_en.pdf