Guide to ecodesign requirement for networked products and household coffee machines

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Are you a manufacturer or importer of electric household appliances and office equipment?

Please be aware. There are requirements for power management, energy efficiency and various other requirements.

Networked equipment and coffee machines must meet ecodesign requirements. Networked equipment must be designed to provide power management and meet requirements for energy efficiency, maximum levels for power consumption in networked standby, and various other requirements.

Coffee machines must be designed to meet requirement for power management only.

Which products?

The requirements apply to networked electrical and electronic household and office equipment in the following groups:

- House appliances (except refrigerators and air-condition)
- Information technology (except computers)
- Consumer equipment
- Toys, leisure and sports equipment

Furthermore the requirements apply to household coffee machine of various types.

When?

The ecodesign requirements for networked equipment are introduced in three steps from respectively 1st January 2015, 1st January 2017 and 1st January 2019.

The requirements include for networked equipment:

- Power management (from 1st January 2015)
- Maximum allowed power consumption in networked standby (from 1st January 2015 and tightened in 2017 and 2019)
- Various other requirements for instance regarding possibility to deactivate network (from 1st January 2015)
- Product information requirements (from 1st January 2015)

The requirements include for household coffee machines:

- Maximum allowed delay time before powering down to standby or off mode (from 1st January 2015)

Who?

You have the responsibility of ensuring and documenting compliance with the requirements, if you are:

- a manufacturer in the EEA that produces electrical and electronic household and office equipment etc. to be placed on the market in the EEA
- an importer of electrical and electronic household and office equipment etc. from a country outside of EU to be placed on the market in the EEA
- an authorised representative in the EEA for a manufacturer that is situated in a country outside of EEA

The above mentioned responsible parties are hereafter referred to as suppliers.

The EEA (European Economic Area) includes the EU member states and the EFTA countries.

Why?

Networked products account for a large share of the energy consumption in the European countries. The saving potential is estimated to be 36 TWh in 2020 and 49 TWh in 2025. Consequently, EU has decided to establish ecodesign requirements for products with network connections.

Where can I find more information?
Find relevant regulations on the last page of this guide, or read more about ecodesign and energy labelling on www.ens.dk/energikrav

Disclaimer
This guide presents the contents of the Regulation and is addressed to manufacturers, importers and others interested. The guide is not a substitution for the Regulation, in any case of doubt, the Regulation is applicable. This guide is not legally binding as a binding interpretation can only be made by the EU court.

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Which products must comply with the requirements?

The requirement applies to electrical and electronic household appliances and office equipment in the following categories:

- House appliances (except refrigerators and air-condition)
- Information technology (except computers)
- Consumer equipment
- Toys, leisure and sports equipment

Computers are covered by Regulation 617/2013/EU, which among others include power management requirements.

Table 1 Examples of products covered by the requirements

Household equipment	IT equipment	Consumer electronics	Toys, hobby- and sport equipment
• Washing machines • Coffee machines • Microwave ovens	• Print/fax/copy/scan equipment • AV projectors • Set top boxes	• Radios • Stereo systems • Video cameras • Televisions	• Electric toy trains and racetracks • Hand-held game consoles • Sport equipment with electronic components

*Please note that this list does not cover **all** products that should comply with network standby requirement! Find out more from the list of covered products in Annex I of Regulation 275/2008/EC.*

The requirements are implemented in Regulation 801/2013/EU which includes an amendment to Regulation 1275/2008/EC regarding ecodesign requirements for standby and off mode consumption of electrical and electronic household appliances and office equipment, and an amendment to Regulation 642/2009/EC regarding ecodesign requirements for televisions.

The requirements for networked televisions are slightly different from the requirements for other networked equipment.

Household appliances and office equipment placed on the market with a low voltage external power supply to work as intended are exempted from the requirements. For the exact definition of low voltage external power supply, please refer to Regulation 278/2009/EC for external power supplies.

What are the requirements?

From 1st January 2015 networked equipment and televisions with network connections are covered by ecodesign requirement. Additional requirements enter into force from 1st January 2017 and 1st January 2019. The requirements include provision of power management, maximum power consumption allowance for networked standby mode, various other requirements as well as requirements for product information.

Furthermore, power management requirements are introduced for household coffee machines from 1st January 2015.

Please not that networked equipment and televisions still have to comply with the requirements in respectively Regulation 1275/2008/EC and Regulation 642/2009/EC.

Requirement for power management

Networked equipment and televisions

From 1st January 2015 networked equipment and televisions with network connections must provide a power management function. The power management function must automatically switch the equipment into networked standby mode, after a period of time where the equipment has not carried out a main function and/or other equipment is not dependent on it.

Please see an overview of power management requirements in table 2.

Table 2 Power management requirements for networked equipment and televisions with network connections

From 1st January 2015	Requirement for power management
Networked equipment	✓ Must offer power management, which after the shortest possible period of time, automatically switch the equipment into network standby condition – unless inappropriate for the intended use of the equipment. ✓ The default period of time before switching must not exceed 20 minutes.
Televisions with network connection	✓ Must offer power management, which after 4 hours in on-mode following the last interaction, automatically switch from on mode into networked standby. ✓ An alert message must be displayed before the switch.
Networked equipment and televisions with network connection	✓ Power management function must be available for all network ports, and activated if any network port is activated. ✓ The power management may offer the possibility to switch into standby mode or off mode automatically from networked standby mode.

Coffee machines

From 1st January 2015 coffee machines are required to provide power management which automatically switch into standby or off mode within a maximum allowed delay time.

The allowed delay time vary between 5 and 60 minutes depending on the type of coffee machine and the latest performed function/activity. The requirements appear from table 3.

Until 1st January 2015 coffee machines are exempted from the power management requirements in Regulation 1275/2008/EC Annex II point 2.d.

Table 3 Power management requirements for coffee machines

Type of coffee machines	Maximum delay time after:		
	last brewing cycles	descaling or self-cleaning process	other activation of heating element
Domestic drip filter coffee machines storing coffee in an *insulated* jug	≤ 5minutes	≤ 30 minutes	-
Domestic drip filter coffee machines storing the coffee in a *non-insulated* jug	≤ 40 minutes	≤ 30 minutes	-
Domestic coffee machines *other than* drip filter coffee machines	≤ 30 minutes	≤ 30 minutes	≤ 30 minutes, *or* ≤ 60 minutes after activation of cup preheat function

Maximum allowed power consumption

Requirements for maximum allowed power consumption in networked standby mode apply from 1st January 2015. The requirements are tightened in 2017 and 2019.

The power consumption allowances depend highly on the type of equipment; networked equipment with high network availability, such as routers, network switches, network access points have higher maximum power consumption allowances than those without these functionalities.

Some products are exempted from the requirements until 1st January 2019. Please see overview in table 4.

Product definitions:

- HiNA equipment: Networked equipment with high network availability means equipment with one or more of the following functionalities, but no other, as the main function(s): router, network switch, wireless network access point hub, modem, VoIP telephone, video phone.
- Equipment with HiNA functionality: Networked equipment with high network availability functionality means equipment with the functionality of a router, network switch, wireless network access point or combination of them, but not being HiNA equipment.
- Network equipment: Equipment that can connect to a network and has one or more network ports.

The above definitions also apply to networked televisions.

Table 4 Maximum allowed power consumption in networked standby mode for networked equipment and televisions with network connection

Type of equipment	From 1st January 2015	From 1st January 2017	From 1st January 2019
HiNA equipment or equipment with HiNA functionality	≤ 12.00 W	≤ 8.00 W	≤ 8.00 W
Other networked equipment (*other than* HiNA and equipment with HiNA functionality)	≤ 6.00 W	≤ 3.00 W	≤ 2.00 W
Exemptions	The above requirement does not apply to the following products: i. printing equipment with a power supply of a rated power larger than 750W ii. large format printing equipment iii. tele-presence systems iv. desktop thin clients v. workstations vi. mobile workstations vii. small-scale servers viii. computer servers	The above requirement does not apply to the following products: i. large format printing equipment ii. desktop thin clients iii. workstations iv. mobile workstations v. small-scale servers vi. computer servers	No exemptions

Various requirements

From 1st January 2015 networked equipment and televisions must comply with various other requirements for instance regarding possibilities for the user to deactivate wireless network connections and compliance with requirements in Regulation 1275/2008/EC (for televisions in Regulation 642/2009/EC) when all network ports are deactivated.

Additional requirements apply from 1st January 2017.

Please see overview in table 5.

Table 5 Various requirements for networked equipment and televisions with network connections

Type	From 1st January 2015	From 1st January 2017
Networked equipment	✓ Must offer the user the possibility to deactivate wireless network connections. ✓ Equipment with one or more standby modes must comply with requirements for these modes when all network ports are deactivated.	✓ Equipment with one or more standby modes must comply with requirements for these modes when wired network ports are disconnected and wireless network ports are deactivated.
Networked equipment *other than* HiNA	✓ Equipment must automatically switch into standby mode, or off mode, or similar mode, when all network ports are deactivated.	

Product information requirement for networked equipment and televisions with network connections

From 1st January 2015 product information must be shown on freely accessible website the manufacturer's, some of which are also required to be included in user manual. An overview of requirements for product information is shown in table 6.

Please notice that the product information requirements shown in table 6 are the additional requirements for networked equipment. Further product information requirements for electronic household appliances and office equipment and televisions appear from respectively Regulation 1275/2008/EC and Regulation 642/2009/EC.

Table 6 Information that must be visibly displayed on manufacturers' freely accessible websites and in user manuals

From 1st January 2015	Product information requirements (additional for networked equipment)
Information on manufacturers webpage	
Networked equipment and televisions	✓ Power consumption in networked standby mode in Watt rounded to the first decimal place.
Networked equipment	✓ The period of time after which the power management or similar function automatically switches equipment into this mode.
Information on manufacturers webpage and in user manual	
Networked equipment	✓ Power consumption of the product if all wired network ports are connected and all wireless network ports are activated. ✓ Guidance on how to activate and deactivate wireless network ports.

What are the requirements for documentation?

CE marking and EC declaration of conformity

Products covered by ecodesign requirements must be CE marked when they are placed on the EEA market.

Furthermore an EC declaration of conformity must be made available by the supplier. In the EC declaration of conformity, the manufacturer or its authorised representative in the EEA must document and guarantee that their products fulfil all relevant EU regulations, i.e. the following reference numbers of ecodesign regulations should be mentioned:

Networked equipment and coffee machines:

- 801/2013/EU
- 1275/2008/EC (for the standby, off mode power consumption of electrical and electronic household and office equipment)

Televisions with network connections:

- 801/2013/EU

Please be aware that several of the products are also covered by product specific regulations regarding ecodesign and energy labelling (for instance televisions). If this is the case the reference numbers for the product specific regulations must also be mentioned in the EC declaration of conformity.

If the products have an external power supply also the following reference number must be included in the EC declaration: 278/2009/EC.

Find requirement for the contents of EC declaration of conformity in the Ecodesign Directive 2009/125/EC Annex VI.

Technical documentation

The supplier is responsible for making sure the product has a technical documentation when placing it on EEA market. The technical documentation should show that the product is constructed in conformity with the requirements in all relevant ecodesign regulations. The technical documentation must be compiled by the manufacturer.

For networked equipment, you can see the required content of the technical documentation in Regulation 801/2013/EU Article 1 or in Annex II point 9 of the Commissions in official consolidated version of Regulation 1275/2008/EC (Please see link on the last page of this guide).

For televisions with network connections, you can see the required content of technical documentation in Regulation 801/2013/EU Article 2 or in Annex I point 3, 6 of the Commissions in official consolidated version of Regulation 642/2009/EC. (Please see link on the last page of this guide).

The market surveillance authorities of EEA countries may request the technical documentation, and the supplier must provide it within a maximum of ten days after receiving the request. The documentation must be stored for ten years after the last examples of the model are produced.

Measurement and calculation methods

The power consumption of networked equipment must be measured by a reliable, accurate and reproducible measurement procedure, which takes into account the generally recognised state of the art. A reproducible measurement procedure means that the measurement can be repeated and produce the same results.

Measurements and calculations must always be carried out in accordance with guidelines of the Regulation.

Where can I find information?

Danish Energy Agency's homepage www.ens.dk/energikrav contains more information about policies, new requirements in regulations, guidance, contact information and links to relevant legislation.

Legislation

Commission Regulation (EU) No 801/2013 amending Regulation (EC) No 1275/2008 with regard to ecodesign requirements for standby, off mode electric power consumption of electrical and electronic household and office equipment, and amending Regulation (EC) No 642/2009 with regard to ecodesign requirements for televisions:
http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2013:225:0001:0012:EN:PDF

Consolidated version of Commission Regulation No 1275/2008:
http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=CONSLEG:2008R1275:20130912:EN:PDF

Consolidated version of Commission Regulation No 642/2009:
http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=CONSLEG:2009R0642:20130912:en:PDF

Directive 2009/125/EC of the European Parliament and of the Council establishing a framework for the setting of ecodesign requirements for energy-related products
http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2009:285:0010:0035:en:PDF

Danish legislations with regard to ecodesign

The ecodesign directive is implemented by the following Danish legislations:

- Lovbekendtgørelse om miljøvenligt design af energirelaterede produkter, nr. 1068 af 15. september 2010
- Bekendtgørelse om miljøvenligt design af energirelaterede produkter, nr. 1274 af 19. november 2010 (only available in Danish)

Where can I find help and guidance?

You can have your questions answered and help to comply with the requirements by contacting the Secretariat for Ecodesign and Energy Labelling of Products

Telephone: +45 43 30 50 20
Monday to Thursday 9:00 - 16:00
Friday 9:00 - 15:30
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