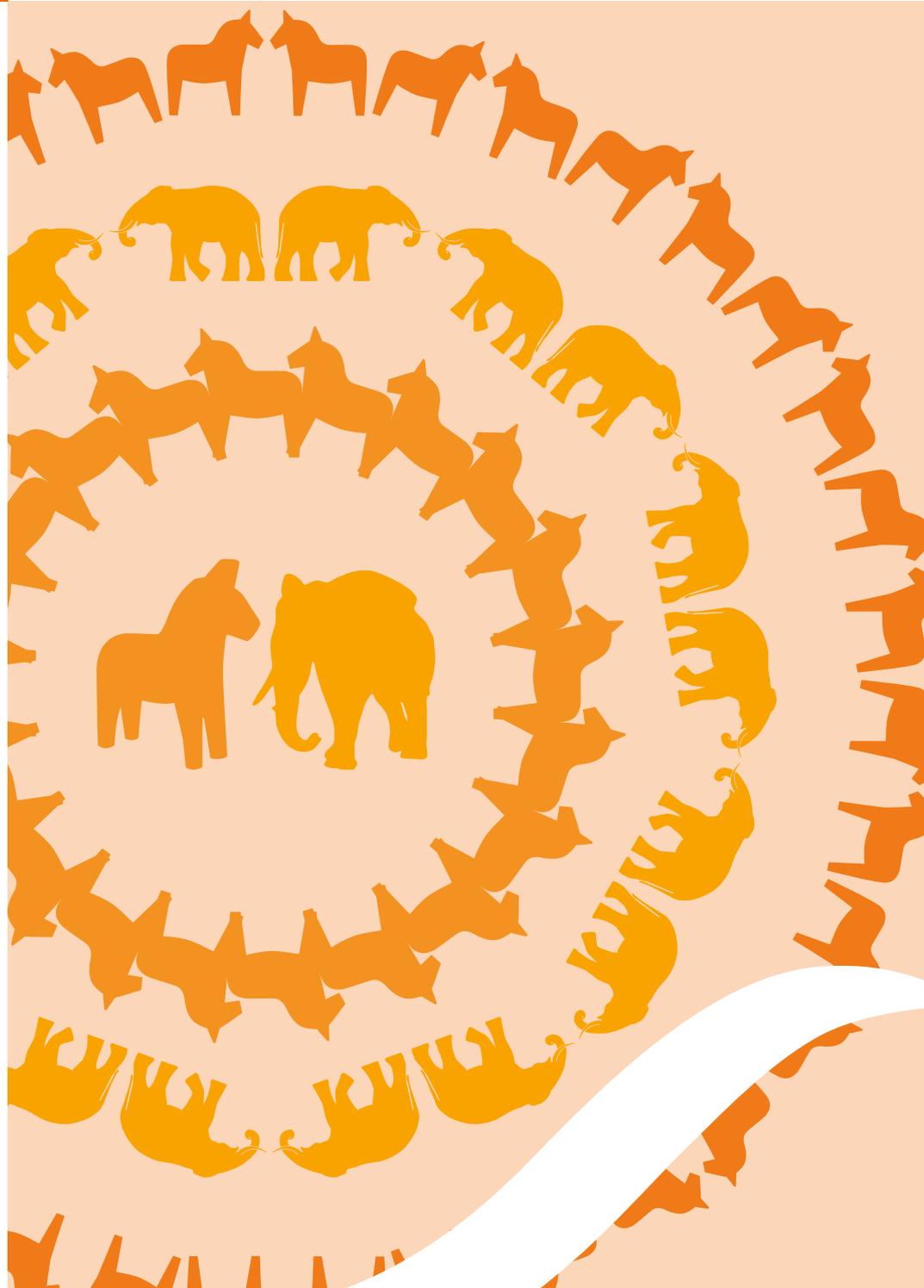


The EU Ecodesign and Labelling system

A guide for BEE and other interested parties



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1 About this guide

This guide has been produced by Borg & Co for BEE on behalf of the Swedish Energy Agency in a SIDA-supported project. The guide is produced with the needs of BEE in mind but it should be useful for anyone who wants to follow the EU ecodesign and energy-labelling process.

It is our belief that the guide will be useful even for regions with rather advanced energy labelling and minimum energy performance standard regimes. The EU framework is advanced and covers many product groups. But it is also opaque and hard to follow for an outsider. The guide shows where it is most easy to “tap in” to the EU process and how to make the best of what comes out it.

By getting a deeper understanding of the process, BEE and other users are expected to be able to track developments at an early stage and thus adapt their own actions before a product regulation becomes a fact. Adaptation can take many forms. Globally, product requirements are become more harmonised, even if considerations to local conditions are made. However, harmonisation does not necessarily mean that performance requirements become the same across the world; harmonisation may mean that test standards and definitions are harmonised, or that certain aspects of requirements are harmonised.

This guide builds on the eceee ecodesign web portal as the main resource for keeping track of information. It is currently Europe’s most comprehensive and easy-to-access resource for ecodesign and energy labelling related issues. But it also provides instructions on how to register for the European Commission’s information services and product study web sites.

Finally, the table in the annex shows the status of the products most interesting for BEE.

Stockholm, 18 December 2013

Follow the ecodesign process

Sign up at the European Commission Authentication Service (ECAS)

Sign up for notifications at the product study web page

2 Aim of the EU Ecodesign and Energy Labelling Directives

According to the EU Ecodesign and Labelling framework, manufacturers of energy-related products are obliged to reduce the energy consumption and other negative environmental impacts occurring throughout the product life cycle. This applies to products that are put on or imported to the EU market.

Ecodesign aims at improving the energy and environmental performance of products and set Minimum Energy Performance Standards for energy efficiency and environmental performance.

The Energy labelling Directive sets a framework for requirements for energy labels for the same kind of products. The labels provide information about energy and environmental performance and to act, as a market driver for encouraging more energy efficient products on the market.

Manufacturers are obliged to determine their product's energy labelling class according to the labelling regulations and make the label visible when selling the product.

The Directives do not include transportation equipment, which is covered by other legislation.

2.1 The 2009 Ecodesign Directive of Energy-Related Products

What is the Ecodesign Directive?

The Ecodesign Directive is a framework for systematic implementation requirements for energy-related products. The “ecodesign requirements” are equivalent to minimum energy performance standards, MEPS.

What does the Ecodesign Directive cover?

The Directive covers energy-related products sold in the domestic, commercial and industrial sectors.

The requirements regulate the energy use and resource efficiency during the *use* phase of the product and almost always energy is determined to be most important factor.

Note: the former 2005 Ecodesign Directive covered “Energy-Using products” (EuP). The scope is now widened to “Energy-related products” (ErP).

How are the requirements enforced?

The requirements are enforced through implementing measures (e. g. regulations) per product/function/component.

How are the product categories determined?

The product groups to be covered are decided in the Working Plan, which is proposed by the European Commission and developed in consultation with EU Member States, the European Parliament and other commercial and NGO stakeholders. The most recent Working Plan covers the period 2012 to 2014.

2.2 The 2010 Energy Labelling Directive

What is the Energy Labelling Directive?

The Energy Labelling Directive is a framework for the harmonisation of energy labelling and standardized product information.

How are the requirements enforced?

The requirements are enforced through implementing measures (delegated regulations) per product/function/component.

What does the Energy Labelling Directive cover?

The requirements regulate the energy use and resource efficiency during the use phase of the product. Energy labelling regulations are developed mainly for consumer-oriented, domestic energy-related appliances.

Are the Ecodesign and Energy Labelling Directives interlinked?

Energy labelling regulations are typically adopted in conjunction with ecodesign regulations. Energy classes are typically harmonised with ecodesign regulations.

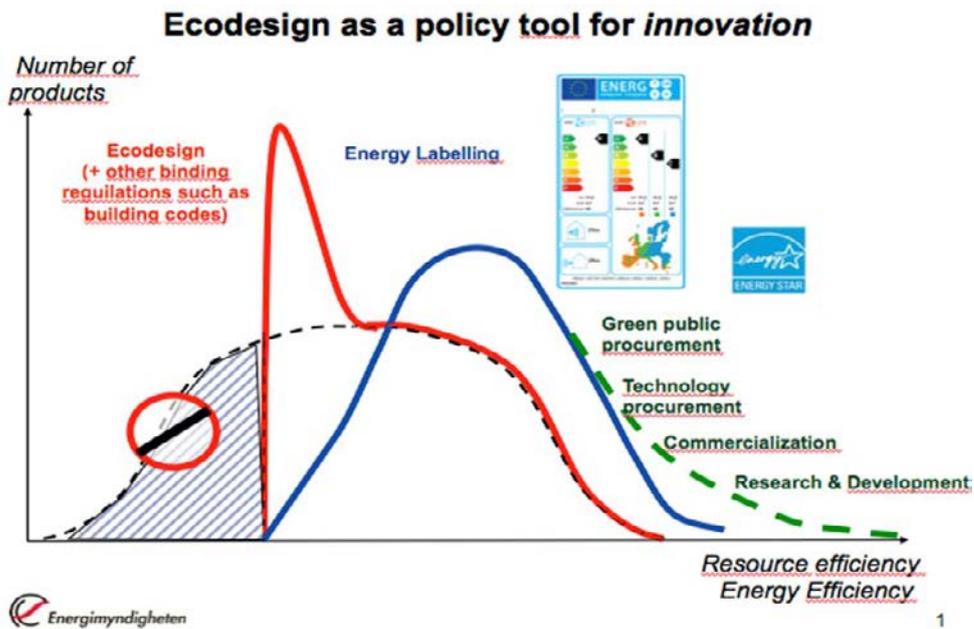
For instance, in the case of washing machines, they were ranked A+++ to G in the labelling regulation. However, the ecodesign requirements (effectively MEPS) for washing machines have now banned all classes below A so only A A+++ remains on the market.

3 How can ecodesign and energy labelling drive the market to more efficient products?

Ecodesign cuts the “tail” of less efficient products by banning them from being put on the EU market. Energy labelling aims at providing the information about the same performance and to act, as a market driver for encouraging more energy efficient products on the market.

The illustration below describes the different policy tools as market drivers for more efficient products. The dashed area to the left is the “tail” of less efficient products that are banned from the EU market through the Ecodesign Directive.

The red curve shows how a great number of products just pass the ecodesign minimum energy performance requirements. The blue curve shows how there is peak of products performing according to certain levels of energy label classes.



4 How are ecodesign and labelling regulations combined?

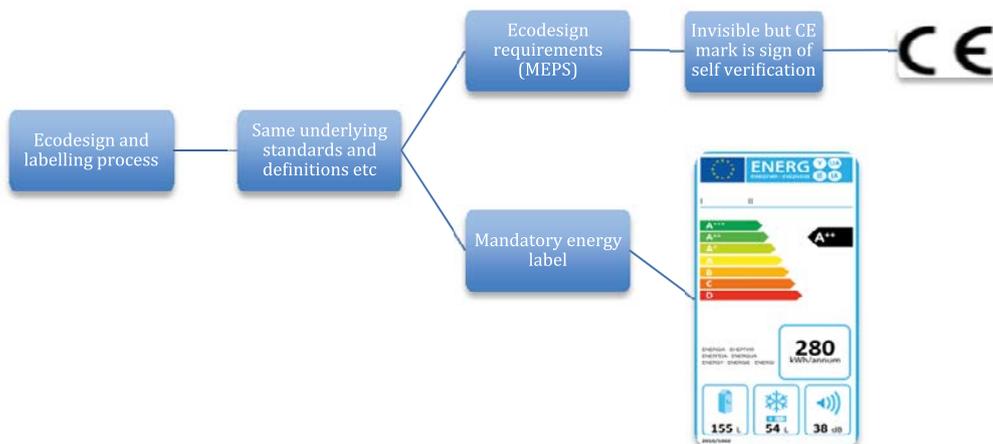
There are three scenarios for products within the ecodesign and labelling system.

1. Only ecodesign regulation
2. Only labelling regulation
3. Both ecodesign and labelling regulations

A very typical case for non-consumer oriented products (HVAC etc): Only MEPS are introduced:



Many products aimed for the consumer market are covered by the mandatory energy label and some products are covered by both labelling and ecodesign requirements, using the same basic definitions and test standards, and with performance levels harmonised.



5 Conformity, market surveillance and enforcement

5.1 How do manufacturers declare conformity with ecodesign regulations?

The products do not have to be approved by Member States, but are instead subject to market surveillance. (See the following section).

Manufacturers declare conformity of their products by affixing the CE mark to the product. The mark is a self-declaration to declare that products fulfil all relevant EU legislation. This applies to products falling under the Ecodesign Directive, but also to other products that are regulated (for example safety regulations).

5.2 Market surveillance and enforcement

Member States have the responsibility to ensure that products sold in national markets are consistent with the provisions of the Ecodesign Directive.

Member States designate the national authorities responsible for market surveillance and are also responsible for taking action when products derogate from measures in the Ecodesign and Labelling Directives.

More information about Market Surveillance is available here: <http://www.eceee.org/ecodesign/%20Horizontal%20matters/eceee-pages-on-ecodesign-and-labeling-market-surveillance>

6 Example of energy labelling classes and ecodesign minimum requirements

The picture below shows the interaction between ecodesign and energy labelling requirements for air conditioners. SEER is seasonal energy efficiency in heating mode and SCOP means seasonal energy efficiency in cooling mode.

Energy classes in the left column are G to A+++, where A+++ is the best performance and also BAT (Best Available Technology). According to ecodesign requirements for air conditioners, minimum energy performance from 2014 will be SCOP 3,8.

6.1 Energy classes and ecodesign requirements

Table 1: Energy efficiency classes for air conditioners, except double duets and single duets

Energy Efficiency Class	SEER	SCOP	
A+++	SEER > 8.50	SCOP > 5.10	BAT
A++	6.10 · SEER < 8.50	4.60 · SCOP < 5.10	
A+	5.60 · SEER < 6.10	4.00 · SCOP < 4.60	3.8 2014
A	5.10 · SEER < 5.60	3.40 · SCOP < 4.00	2013
B	4.60 · SEER < 5.10	3.10 · SCOP < 3.40	3.4
C	4.10 · SEER < 4.60	2.80 · SCOP < 3.10	
D	3.60 · SEER < 4.10	2.50 · SCOP < 2.80	
E	3.10 · SEER < 3.60	2.20 · SCOP < 2.50	
F	2.60 · SEER < 3.10	1.90 · SCOP < 2.20	
G	SEER < 2.60	SCOP < 1.90	

7 How are the regulations developed?

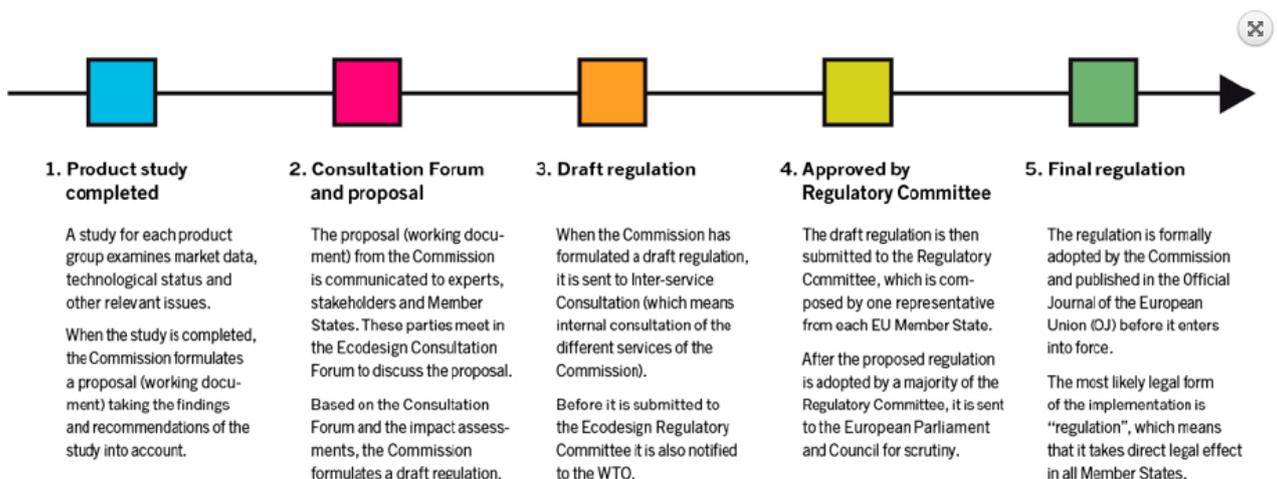
7.1 Which products are in focus? How are they selected?

The Ecodesign working plan sets out an indicative list of product groups that are considered as priorities for the adoption of implementing measures. The working plan for 2012–2014 was adopted in December 2012.

The product groups of the latest work plan can be found at: <http://www.eceee.org/ecodesign/%20Horizontal%20matters/working-plan>

7.2 Ecodesign regulating process

The ecodesign process is explained in a flow chart that can be found at the eceee ecodesign product pages: <http://www.eceee.org/ecodesign/products>



(From eceee's web site <http://www.eceee.org/ecodesign>)

Product study

Each product group is called a "Lot". For each lot, there is an extensive product study, which examines market data, technological status and provides recommendations to the Commission. During the study phase, interested stakeholders will meet to discuss the study and anyone can sign up for information on the on-going work (each study *must* have a dedicated web site).

Proposal and Consultation Forum

Each product study is followed by a proposal from the Commission. This is discussed in the so-called Consultation Forum. This group consists of Member States, experts and other stakeholders. It aims to inform stakeholders and provide their contribution to the implementation of the Directive.

The Consultation Forum contributes to the definition and review of the implementing measures, examines the efficiency of the market surveillance mechanisms and the assessment of voluntary agreements in the context of the Directive.

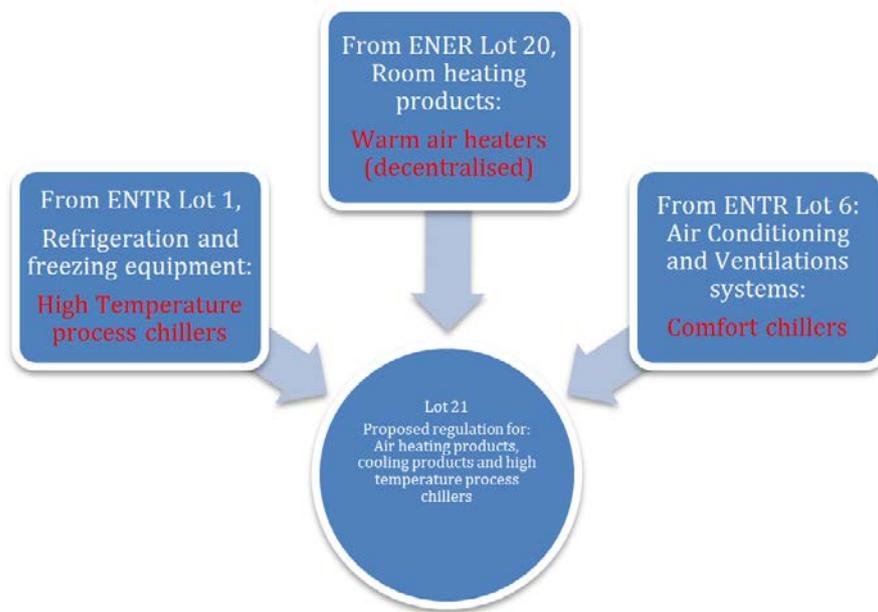
The process continues with drafting and outlining impact assessments, after which the Commission develops a final proposal.

Regulatory Committee

The proposal is sent to voting in the Regulatory Committee before the Commission adapts the implementing measure (IM). The most likely legal form of the IM is “regulation”, which means that it takes direct legal effect in all Member States.

8 What is a lot number?

When a product study is launched, it has a lot number for the product group that is studied. When a draft proposal is formulated, product groups that originally were studied in different lots can be merged into the same proposal. One example is lot 21, where product groups from 3 other lots were added. See picture below:



Product categories from three different lots (marked red in the picture above) were moved to the proposed regulation discussed in Lot 21, since it was considered as more appropriate to combine these products in the same legislation.

9 How do I keep track of the ecodesign process?

Below follows a description how the development of ecodesign and labelling regulations can be followed. Later, the EU Commission will open a helpdesk to provide information about the ecodesign process.

9.1 EU Commission

By signing up at the European Commission Authentication Service (ECAS), you can submit for notification in the CIRCA database for information about the ecodesign process.

- ECAS web site: <https://circabc.europa.eu/faces/jsp/extension/wai/navigation/container.jsp>
- Go to “Login” and then “Sign in”
- Once logged in, you choose the header “European Commission” and click on the link “Enterprise and Industry”
- From there you may sign up for the” EcoDesign of Energy related Products (ErP) – Consultation Forum”

9.2 Product Study

- As soon as the product study site is launched, it is possible to sign up at the product study web site for notifications as the study proceeds.
- You may submit comments to the product study team

Example of study web site: http://susproc.jrc.ec.europa.eu/taps_and_showers/index.ht

9.3 Consultation Forum and Regulatory Committee

- Through CIRCA notification services you will receive documents (minutes, comments, working documents) and hence follow the discussion in Consultation Forum
- You will also be notified when a proposal has been voted on in Regulatory Committee
- Comments are only allowed for stakeholders (EU Member States, industry representative, NGO:s)

9.4 Final regulation

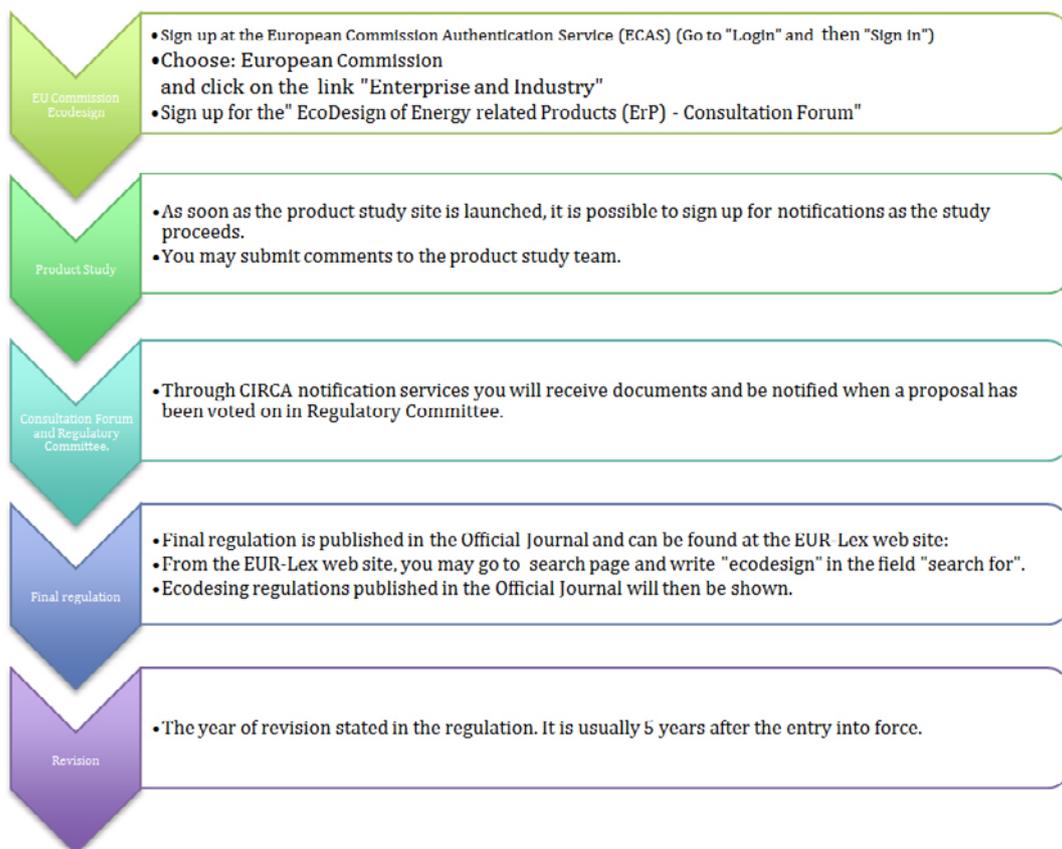
- Final regulation is published in the Official Journal and can be found at the EUR-Lex web site: <http://eur-lex.europa.eu/en/index.htm>
- From the EUR-Lex web site, you may go to search page: http://eur-lex.europa.eu/RECH_mot.do?idRoot=1 and type “ecodesign” in the field “search for”.
- Ecodesign regulations published in the Official Journal will then be shown.

9.5 Revision

The year of revision stated in the regulation. It is usually 5 years after the entry into force.

On the following page, there is a picture that illustrates the process of information described above.

9.6 Overview of the ecodesign process



10 How to use the eceee ecodesign web site

10.1 Products and status overview

At the ecodesign product pages of eceee (European Council for an Energy Efficient Economy) <http://www.eceee.org/ecodesign/products>, product groups are presented within the different lots and, when final regulation is in force, according to the number of the regulation. They can be sorted in categories (see below).

The original division in lot numbers is based on the original product study. As mentioned above, product groups may be added to or excluded from a regulation proposal as the process moves on.

If you want to know the last updated new, you can sort on “Last updated” in the list (see picture below).

official number (or “lot”).

Sort on: [Lot](#) / [Process Status](#) / [Last updated](#)

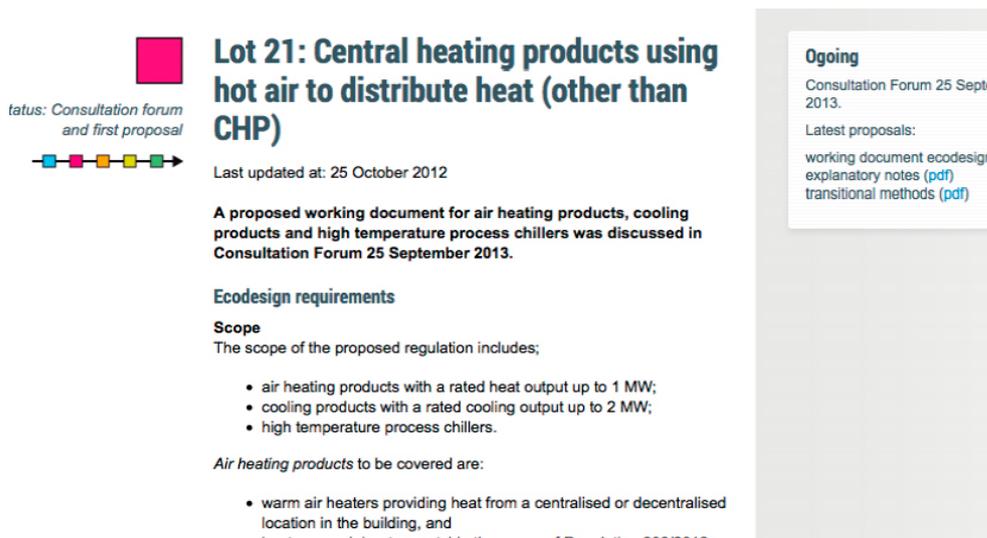
The screenshot shows a dropdown menu with the following options: Show all, Lighting, Consumer electronics, Wet appliances, Domestic appliances, Commercial appliances, Cold appliances, Air conditioning units, PC equipment, Heaters and boilers (highlighted), Standby, Horizontal measures, Dehumidifiers, Motors, pumps and fans, Vacuum cleaners, Distribution and power transformers, and Cooking and beverage appliances. To the right, a table lists product groups and their regulatory status:

Product Group	Status
Lighting	design regulation in force in September 2013.
Commercial appliances	design regulation in force in September 2013.
Horizontal measures	design requirements in force in June 2013.
Dehumidifiers	voluntary agreement recognised.
Distribution and power transformers	revision of ecodesign regulation will be finalised in October 2013.
Standby and off-mode losses of EuPs, Lot 6	Entry into force 7 January 2009.
Battery chargers and	

10.2 Product pages

Each product category has its own product page, where short information about the product's status in the ecodesign process is available.

The latest proposals or regulations are shown in the box to the right. Explanatory notes are included when available. They usually give a useful brief of a proposal (See the box "Ongoing" to the right in the picture below).



Lot 21: Central heating products using hot air to distribute heat (other than CHP)

Status: Consultation forum and first proposal

Last updated at: 25 October 2012

A proposed working document for air heating products, cooling products and high temperature process chillers was discussed in Consultation Forum 25 September 2013.

Ecodesign requirements

Scope
The scope of the proposed regulation includes;

- air heating products with a rated heat output up to 1 MW;
- cooling products with a rated cooling output up to 2 MW;
- high temperature process chillers.

Air heating products to be covered are:

- warm air heaters providing heat from a centralised or decentralised location in the building, and

Ongoing
Consultation Forum 25 September 2013.
Latest proposals:
working document ecodesign explanatory notes ([pdf](#))
transitional methods ([pdf](#))

ecode's ecodesign web site is currently building a separate page to serve as a "key" to show how a final regulation has used information from different product lots. Since this will be changing during the long and arduous process to develop this page will be continuously updated.

11 Overview ecodesign: AC, cold appliances, pumps

Product category	Products	Scope (non- exhaustive)	Web sites	Lot	Ecodesign	Labelling
AC and ventilation	Central heating products using hot air to distribute heat (other than CHP)	<ul style="list-style-type: none"> • Comfort chillers, • Air conditioners • High-temperature chillers intended for industrial process cooling. 	http://www.eceee.org/ecodesign/products/Lot21_Central_Heating_Products	21	Proposed	No
	Ventilation fans	<ul style="list-style-type: none"> • Fans of power range 125 W to 500 kW. 	http://www.eceee.org/ecodesign/products/ventilation_fans/Final_regulation_2011	11	http://www.eceee.org/ecodesign/products/ventilation_fans/Final_regulation_2011	No
	Ventilation units	<ul style="list-style-type: none"> • Ecodesign; Ventilation units (both residential and commercial) • Energy labelling; only residential ventilations 	http://www.eceee.org/ecodesign/products/tertiary_air_conditioning http://www.eceee.org/ecodesign/products/domestic_ventilation	6 10	Proposed	Proposed for residential ventilation units
	Room air conditioning appliances	<ul style="list-style-type: none"> • Air-to-air-conditioning appliances up to 12 kW cooling and/or heating design load. 	http://www.eceee.org/ecodesign/products/airco_ventilation	10	Regulation in force: http://www.eceee.org/ecodesign/products/airco_ventilation/Regulation_206-2012_air_conditioners_and_comfort_fans_.pdf	Regulation in force: http://www.eceee.org/ecodesign/products/airco_ventilation/Delegated_regulation_labelling_6July2011

Product category	Products	Scope (non- exhaustive)	Web sites	Lot	Ecodesign	Labelling
Freezers	Refrigerating and freezing equipment	<ul style="list-style-type: none"> • Electric mains-operated blast cabinets • Electric mains-operated professional storage cabinets (including those sold for the refrigeration of items other than foodstuffs) 	http://www.eceee.org/ecodesign/products/cold_appliances	1	Proposal	Proposal
	Commercial refrigerators and freezers	<ul style="list-style-type: none"> • Remote refrigerated display cabinets • Plug-in refrigerated cabinets for supermarkets • Beverage coolers • Plug-in freezers for sales of frozen products 	http://www.eceee.org/ecodesign/products/commercial_refrigerators_freezers	12	Proposed	Proposed
(Freezers continued)	Household refrigerating appliances	Household refrigerating appliances	http://www.eceee.org/ecodesign/products/commercial_refrigerators_freezers/domestic_fridges_and_freezers	13	Final regulation: http://www.eceee.org/ecodesign/products/domestic_fridges_and_freezers/refrigerating_appliances_regulation_090723	Final regulation: http://www.eceee.org/ecodesign/products/domestic_fridges_and_freezers/Final_Regulation_Labeling
Pumps	Large pumps and pumps for pools, fountains, aquariums	To be determined	http://lot29.ecopumps.eu/	29	Preparatory study ongoing	Nej
	Pumps for waste waters	To be determined	http://www.eceee.org/ecodesign/products/Pumps_for_waste_waters	28	Preparatory study ongoing	Nej
	Pumps (water)	<ul style="list-style-type: none"> • Single stage end suction, • vertical multi stage, and • submersible multistage pumps 	http://www.eceee.org/ecodesign/products/electric_pumps	11	Proposed	No

Indo-Swedish collaboration on energy efficiency, 2011-2014

The Swedish Energy Agency and the Bureau of Energy Efficiency (BEE) cooperates within the field of energy efficiency. The overall objectives are to establish agency cooperation, to facilitate business cooperation and to enhance capacity building. The project focuses on energy efficiency measures and management in industry and in buildings, and on minimum energy performance standards and labelling. The agencies also share experiences on communication strategies and outreach activities for more energy efficient behaviour.

The Indian and Swedish governments signed a Memorandum of Understanding on Indo-Swedish cooperation within the field of renewable energy in 2009.



Bureau of Energy Efficiency
Government of India, Ministry of Power
www.beeindia.in



SWEDISH INTERNATIONAL
DEVELOPMENT COOPERATION AGENCY

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