

# Eco design of energy related products – time for industry to wake up

The scope of Energy using product directive was expanded to all energy related products in 2009. The Eco-design directive allows the Commission to develop regulation – with minimum requirements and mandatory CE marking - for practically any product used in buildings.



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The Eco-design directive does not set binding requirements on products by itself: it provides a framework for setting such requirements through implementing measures. The Commission prepares implementing measures only for products which have significant sales and trade in the EU – generally over 200 000 pieces per year - and a significant environmental impact and potential for improvement. The preparation of implementing measures includes several stages ending up in publishing the final regulation – meaning also that the requirements for products defined in the regulation are exactly the same in all EU Member States.

Industry and other stakeholders may follow the progress in all stages, and during the preparatory studies stakeholder meetings are arranged, in principle open to all. However, generally speaking, industry is not really well prepared - only a few companies put enough effort today to follow up, and very few forerunners (typically large international companies) influence actively. All others (SMEs, branch organizations, other stakeholders...) are either totally asleep, or struggle with lack of resources (expertise, money, language skill, patience...)

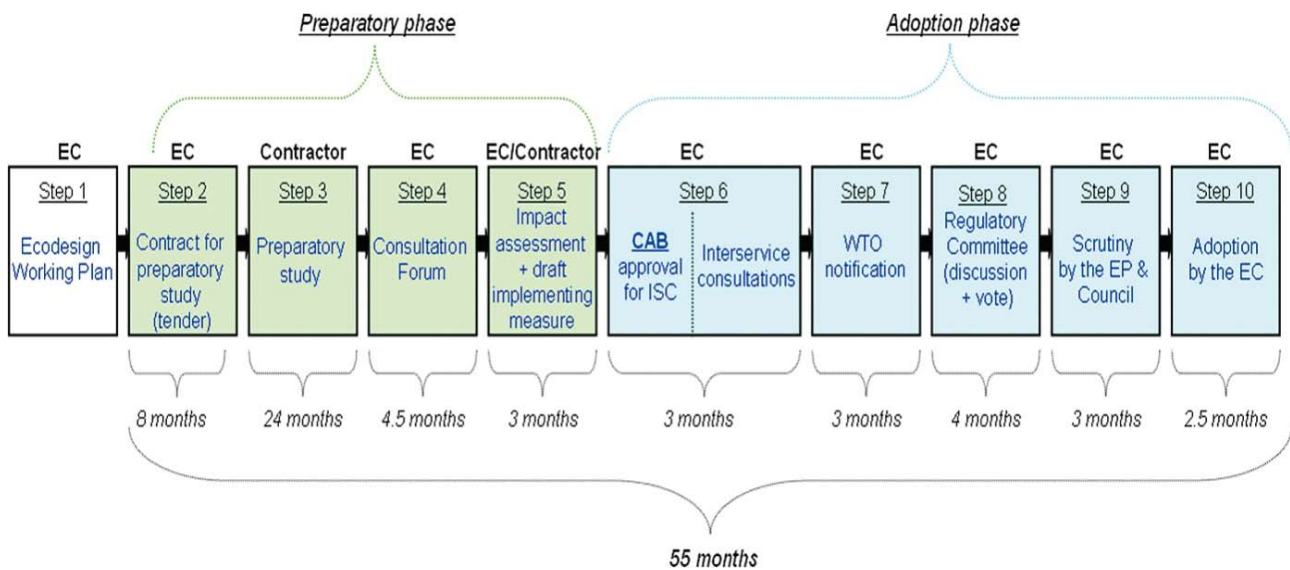
## Process of preparation of regulations

Figure 1 shows the main phases of the preparations.

Figure 2 shows the phases in more detail, including also some features of the minimum duration of phases. The whole process takes 55 months as a minimum, but in practice the whole process can take up to 10 years.



**Figure 1.** Preparation of Eco-design regulations – the main phases. **1.** Working plan, **2.** Preparatory study – Stakeholder meetings, **3.** Draft regulation – Consultation forum, **4.** Regulatory Committee, **5.** Final regulation.



**Figure 2.** Minimum duration of different phases and steps of Eco-design process.

## HVAC-related Eco-design regulations

### *Adopted HVAC related regulations*

Implementing measures have been published and regulations have entered into force for several product groups, including (Regulations can be obtained from Ecodesign website -> Product groups page / Table at the bottom gives links to the regulations in all EU languages)

- Electrical motors - Commission Regulation (EC) No 640/2009
- Circulators - Commission Regulation (EC) No 641/2009
- Fans (125 W to 500 kW power input) - Commission Regulation (EU) No 327/2011
- Air conditioners and comfort fans - Commission Regulation (EU) No 206/2012

### *Regulations in preparation relevant to HVAC (studies completed)*

ENER Lot 1 **Boilers** - The scope of this lot includes self-standing boilers. Technologies covered are fossil-fuel boilers, heat pumps and micro cogeneration up to electrical capacity of 50 W. This includes combination boilers providing heat for heating sanitary water.

The draft ecodesign requirements would be introduced gradually two and four years after entry into force of the regulation. Annex II of the proposal includes information requirements and minimum performance standards for seasonal space heating energy efficiency, water heating energy efficiency, sound power level and nitrogen oxide emissions.

In the December issue of the journal, page 22, in Mr Saikkala- Grönroos interview it was estimated that the boiler regulations will be published in early 2014 – it should have been **early 2013**.

ENER Lot 2 **Water Heaters**. - The proposed requirements for water heaters, storage tanks, space and combination heaters include provisions for energy efficiency, storage volume, sound power level, nitrogen oxide emissions and product information.

ENER Lot 15 **Solid fuel boilers and fireplace**. - The scope of the proposed ecodesign requirements include solid fuel boiler space heaters and solid fuel boiler combination heaters ('boilers') ≤ 500 kW. Boiler combination heaters can be defined as boilers for space heating in combination with supply of heat to deliver hot drinking and sanitary water. They were not included in the preparatory study of lot 15, but have been included in the working document since no specific other lot covers this product type.

**“ENTR Lot 6 – Air Conditioning and Ventilation Systems”** –project was closed in July 2012. The “Document” page of the project\*, now contains links to the complete final outcome of both “Ventilation” and “Air conditioning” parts of the study. **Ecodesign – Lot 20 and 21 for heating products** final reports are now available online for local heating (Lot 20)\*\*, and for central heating products (Lot 21)\*\*\*.

So, several product groups for heating, ventilation and air conditioning are subject to preparation of regulations. The difficulty is that a product with several functions can be subject to several regulations, e.g. one for heating, another or cooling, and a third one for ventilation.

For Ventilation units, a Working Document containing a draft regulation of ecodesign and labeling, was sent to the Member States in October 2012. The document is based on the “Ventilation” parts of **ENER Lot 10 and ENTR Lot 6**. One key issue there is that the borderline between “residential ventilation units” and “non-residential ventilation units” has now been defined. Units with fans of less than 125 W power input are regarded as “residential”, and larger ones as “non-residential”. The proposed regulation, however, gives the manufacturer the possibility to decide the category of the unit independently of the size. Labelling requirements are prepared for “residential ventilation” only, because energy labelling is primarily for consumer products.

## **2012 - 2014 working programme – other activities for the future**

The Working Plan sets out an indicative list of product groups which are considered priorities for the adoption of implementing measures under the Ecodesign Directive.

### *List of “next” products subject to preparatory studies*

European Commission, Directorate-General for Energy, launched in August 2012 a call for tenders with subject **framework contracts for the provision of preparatory studies, review studies and technical assistance**. This framework contract is divided into three lots. The first one deals with preparatory studies and related technical assistance on specific product groups listed in the ecodesign working plans adopted under the Ecodesign Directive. The products mentioned in the call, as priority product groups listed in the second and subsequent ecodesign working plans, include **steam boilers (<50 MW), smart appliances/meters, positive displacement pumps, heating controls and lighting controls/systems**. 3€

\* <http://www.ecohvac.eu/documents.htm>

\*\* <http://www.ecoheater.org/lot20/documents.php>

\*\*\* <http://www.ecoheater.org/lot21/documents.php>