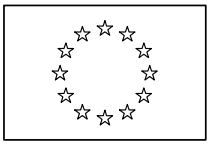

COMMISSION OF THE EUROPEAN COMMUNITIES

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COMMUNICATION FROM THE COMMISSION TO THE COUNCIL AND THE EUROPEAN PARLIAMENT

Establishment of the working plan for 2009-2011 under the Ecodesign Directive

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1. INTRODUCTION

"Ecodesign" aims at improving the environmental performance of products throughout their life cycle (raw material selection and use; manufacturing; packaging, transport and distribution; installation and maintenance; use; and end-of-life) by systematically integrating environmental aspects at the earliest stage of product design.

Energy-using products (EuPs) are dependent on energy input (electricity, fossil fuels and renewable energy sources) or generate, transfer and measure such energy. They account for a large proportion of consumption of energy and other natural resources in the Community and have high potential for reducing greenhouse gas emissions.

The Ecodesign Directive 2005/32/EC[1] establishes a framework for the setting of ecodesign requirements for energy-using products. The Directive is therefore a key component of the EU's policy for improving the energy and environmental performance of products on the internal market. Its potential to cover other environmentally significant products, namely all energy-related products, was highlighted in the recently adopted Action Plan on Sustainable Consumption and Production and Sustainable Industrial Policy[2], which does however not affect the present working plan. The Directive ensures free movement of products across Europe and encourages integration of ecodesign in small and medium-sized enterprises (SMEs). Overall, the ecodesign framework brings benefits, in the form of products offering better environmental performance, including energy savings.

Objective of the working plan

Article 16(1) of the Ecodesign Directive specifies that the Commission shall publish a working plan setting out, for the three following years, an indicative list of energy-using product groups which will be considered priorities for the adoption of implementing measures.

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[1] 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 (OJ L 191, 22.7.2005, p. 29), **amended by** Directive 2008/28/EC of the European Parliament and of the Council of 11 March 2008 amending Directive 2005/32/EC establishing a framework for the setting of ecodesign requirements for energy-using products, as well as Council Directive 92/42/EEC and Directives 96/57/EC and 2000/55/EC, as regards the implementing powers conferred on the Commission (OJ L 81, 20.3.2008, p. 48).

[2] Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions on the Sustainable Consumption and Production and Sustainable Industrial Policy Action Plan, COM(2008) 397 final.

The working plan should build on the work done since mid-2005 for the transitional priority product groups listed in Article 16(2) of the Directive. The environmental priorities for the adoption of implementing measures remain the same, in particular to harness the potential of energy-using products to combat climate change in a cost-effective manner.

2. MECHANISMS OF THE ECODESIGN DIRECTIVE

The Ecodesign Directive is a framework directive. This means that, in practice, binding ecodesign requirements are set by implementing measures specific to each product group. The Directive itself only lays down the conditions and criteria for introducing implementing measures: they may be adopted for a particular product, provided it has a significant impact on the environment coupled with a high volume of sales and trade on the internal market and with clear potential for improvement without entailing excessive costs.

Implementing measures are considered when no valid self-regulatory initiative has been taken by industry. Self-regulation by industry, including voluntary and unilateral commitments, may indeed produce quick progress, due to rapid and cost-effective implementation, and allows flexible and appropriate adaptation to technological solutions and market sensitivities.

Each implementing measure is preceded by preparatory studies and an impact assessment conducted by external experts and the Commission with the aim of identifying cost-effective solutions to improve the overall environmental performance of products and incorporates participatory and delegated decision-making processes. Implementing measures are eventually adopted by the Commission under the regulatory procedure with scrutiny.

3. PRODUCT GROUPS COVERED IN THE TRANSITIONAL PERIOD (2005-2008)

During the "transitional period" between the entry into force of the Ecodesign Directive and adoption of this working plan, implementing measures were to be introduced for the product groups mentioned in Article 16(2) of the Directive. This article classifies a number of energy-using products identified by the European Climate Change Programme as priorities, such as heating and water-heating equipment, electric motor systems, lighting in both the domestic and tertiary sectors, domestic appliances, office equipment in both the domestic and tertiary sectors, consumer electronics and HVAC (heating/ventilating/air conditioning) systems. Furthermore, a separate horizontal implementing measure was to be introduced to reduce stand-by losses for a group of products.

Nineteen preparatory studies, along with the accompanying stakeholder meetings, were launched on these transitional priority product groups, some of them on specific categories of products. Each of them analysed whether and, if so, which ecodesign requirements should be set for the relevant product group. Fourteen preparatory studies have been completed and, on the basis of the results and in the absence of corresponding self-regulation measures, the Commission has started to draft implementing measures and, where suitable, labelling requirements under the Energy Labelling Directive 92/75/EEC for specific energy-using products. The other five preparatory studies are expected to be finalised by 2009.

The next steps following the preparatory study for each product group comprise consultation of the Consultation Forum, an assessment of the economic, environmental and social impact of the possible implementing measure and adoption by the regulatory procedure with scrutiny.

Over the next few months the Commission is in the process of adopting implementing measures for the following product groups: tertiary-sector lighting equipment (covering both public street lighting and office lighting), stand-by and off-mode electricity losses, external power supplies and simple set-top boxes for digital reception of television signals. In 2009, it also intends to submit implementing measures on televisions, domestic lighting, domestic refrigerators and freezers, washing machines, dishwashers, boilers and water heaters, computers, imaging equipment, commercial refrigerators, electric motors, pumps, fans, circulators and room air-conditioners.

Annex II lists the product groups covered in the transitional period.

4. INDICATIVE LIST OF PRODUCT GROUPS

This working plan sets out an indicative list of product groups, taking into account the work done in the transitional period. The product groups listed are considered indicative priorities for preparatory studies and implementing measures in the next three years.

A Commission study[3] for preparing the working plan identified 57 product groups which fall within the scope of the Ecodesign Directive but were not covered in the transitional period[4]. Systematic identification of these product groups, based on the PRODCOM[5] product list, was a prerequisite for the working plan.

The study screened the 57 product groups against the principal environmental impact – primary energy consumption in the use phase – to identify the product groups with the highest potential for reduction of greenhouse gas emissions. This resulted in 25 product groups ranked A and 9 ranked B[6]. The Commission further assessed the 25 A-ranked product groups with a view to prioritisation based on the set of criteria laid down in Article 15 of the Ecodesign Directive, namely that:

(1) the product group represents a significant volume of sales and trade within the Community;

(2) the product group has a significant environmental impact within the Community resulting from the energy-using products during their life cycle;

(3) the product group presents significant potential for improvement in terms of its environmental impact without entailing excessive costs.

The following assessment principles were applied, where relevant to the product group, to determine the significance of the Article 15 criteria:

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3 EPTA Ltd, Greece; PE International, Germany; NTUA, Greece: Study for preparing the first Working Plan of the Ecodesign Directive, Report for tender No: ENTR/06/026, Revised Final Report: 06/12/2007: http://ec.europa.eu/enterprise/eco_design/workingplan.htm.

4 p. 29 of [3].

5 PRODCOM is a system for the collection and dissemination of statistics on the production of manufactured goods. The title comes from the French "PRODuction COMmunautaire" (Community Production) for mining, quarrying and manufacturing: sections B and C of the Statistical Classification of Economy Activity in the European Union (NACE 2).

6 p. 33 of [3].

According to the latest (2005/2006) PRODCOM product list available, the ten product groups selected as priorities by the Commission meet the indicative sales and trade criterion of more than 200 000 units a year within the Community. Energy-using products from the domestic, tertiary and industrial sectors are covered. This first criterion is a yes/no question, as the number of units per product group directly influences the assessment of the second criterion.

For the assessment of the second criterion (significant environmental impact), the following aspects were taken into account: high primary energy consumption within the identified product groups (indicatively > 1 000 PJ/year) and the related emissions such as greenhouse gases, acidifying substances or heavy metals and waste generation. This gives a first indication of prioritisation, in line with the screening indicator in the study. A long operating time (very high: up to 24 hours a day or three production shifts; or high: about 8 hours a day or heating/cooling period), parts contributing to energy consumption or a predicted increase in energy consumption in the next decade due to a high-growth market are further evidence of the magnitude of the environmental impact related to energy consumption. Further resources requiring attention is the use of water, in light of the increasing impacts of water scarcity and droughts in Europe. Other forms of environmental impact considered are materials or components responsible for other resource consumption, waste generation or specific emissions, such as electronics, displays, refrigerants, oils, wastage in use or emissions of exhaust gases and micro-dust.

The third criterion – significant potential for improvement in terms of the environmental impact of the product groups – was also considered to set priorities. Significant potential for ecodesign measures is indicated by high potential for energy savings during use (indicatively > 20%). Regarding other resources the design improvement of some water-using equipment can deliver significant water savings and related energy savings. Other important ecodesign measures may include reducing the weight or volume of a product, using recycled materials, reducing emissions, extending the product's minimum guaranteed lifetime or ensuring upgradeability, reparability or easy recycling by reducing the number of materials used, using standard components or providing easy access to valuable components. Existing third-country specifications, such as the Minimum Energy Performance Standards (MEPS) in Japan or the Energy Star scheme in the USA, and technological developments may also feed information into the process of identifying products with equivalent functionality but superior environmental performance.

There is no other Community legislation on ecodesign measures for the product groups assessed, but each preparatory study should identify if any other legislation should be taken into account for any specific environmental impact of the products investigated, e.g. the WEEE Directive for recycling[7]. At this stage, it is assumed that the significant potential for improvement in terms of the environmental impact of these product groups will not entail excessive costs and that market forces will fail to make progress in the absence of any mandatory or voluntary requirement. These preliminary assumptions should be investigated by preparatory studies. Suggested improvements in environmental performance should be based on lowest life cycle costs to guarantee cost-effectiveness.

[7] Directive 2002/96/EC of the European Parliament and of the Council of 27 January 2003 on waste electrical and electronic equipment (WEEE) (OJ L 37, 13.2.2003, p. 24).

The findings of the assessment led to the following indicative list of product groups. Further details on the assessment are given in Annex I.

Indicative list of product groups covered by this working plan[8]

- Air-conditioning and ventilation systems;
- Electric and fossil-fuelled heating equipment;
- Food-preparing equipment;
- Industrial and laboratory furnaces and ovens;
- Machine tools;
- Network, data processing and data storing equipment;
- Refrigerating and freezing equipment;
- Sound and imaging equipment;
- Transformers;
- Water-using equipment.

The Commission consulted the Consultation Forum, as required by Article 18 of the Ecodesign Directive, to take into account the comments from the Member States' representatives and stakeholders when establishing this working plan and the indicative list of product groups[9].

The listed product groups may be divided into several lots for preparatory studies, taking into account the conclusions from the transitional period: Products with similar technical, economic and environmental features should, in principle, be studied together, with a subdivided analysis, whenever relevant, of market structure, use patterns, environmental and economic impact or potential for improvement. Preparatory studies on specific products that could be classified in different product groups (e.g. chillers or heat pumps) must be coordinated. Data from the analysis of processes and complex systems in the Best Available Techniques Reference Documents ("BREFs") under the IPPC Directive[10] should be used when appropriate, following the example of the work done for the product groups "electric motor systems" and "HVAC systems" during the transitional period.

The prioritisation assessment by the Commission may be subject to change after a full quantitative assessment is carried out in a preparatory study.

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8 Product groups in alphabetical order and excluding energy-using products covered in the transitional period.

9 Minutes of the Consultation Forum of 28 May 2008: http://ec.europa.eu/enterprise/eco_design/workingplan.htm.

10 Directive 2008/1/EC of the European Parliament and the Council of 15 January 2008 concerning integrated pollution prevention and control, codified version (OJ L 24, 29.1.2008, p. 8). Best Available Techniques Reference Documents: http://eippcb.jrc.es/pages/FActivities.htm.

5. OUTLOOK

Inclusion on the indicative list for this working plan indicates that the Commission will initiate a preparatory study on the product group concerned during the period 2009-2011 and, possibly, adopt an implementing measure, subject to the outcome of the preparatory study, a favourable impact assessment and the condition that no valid self-regulatory measures are in place.

Information regarding the timeline for preparatory studies and implementing measures will be disseminated to all stakeholders for each product group, notably via the websites of the Commission departments in charge of the Ecodesign Directive[11] and via stakeholder meetings and websites organised by the contractors conducting the preparatory studies.

Each preparatory study will investigate possible ecodesign requirements on the basis of technical, economic and environmental analyses. The possibility of issuing a mandate to standardise certain ecodesign parameters should be explored. Interested parties should cooperate actively in this analysis.

In addition, the Commission calls on the branches of industry manufacturing energy-using products with a significant environmental impact to develop self-regulation measures which could deliver the policy objectives faster or in a less costly manner than mandatory requirements. This is in line with the Ecodesign Directive and with the Commission's "Better Regulation" strategy and its rolling simplification programme. The Commission will follow such initiatives during the next three years and subsequently evaluate the need for further implementing measures, for example where market forces fail to move in the right direction or at an acceptable speed.

In accordance with Article 16 of the Directive, the working plan shall be amended periodically by the Commission, after consultation with the Consultation Forum.

If the proposal by the Commission to extend the product scope of the Ecodesign Directive[12] to cover all energy-related products is swiftly adopted by the European Parliament and the Council, the Commission will amend the working plan, as appropriate, to include product groups added by the extension.

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[11] Directorate-General for Enterprise and Industry: http://ec.europa.eu/enterprise/eco_design/index_en.htm.
Directorate-General for Energy and Transport: http://ec.europa.eu/energy/demand/legislation/eco_design_en.htm.

[12] Proposal for a Directive of the European Parliament and of the Council establishing a framework for the setting of ecodesign requirements for energy-related products of 16 July 2008. COM(2008) 399 final, 2008/0151 (COD).

ANNEX I

TABLE: NON-EXHAUSTIVE ASSESSMENT OF THE PRODUCT GROUPS ON THE INDICATIVE LIST FOR THIS WORKING PLAN

The product groups are listed in alphabetical order and excluding products already covered during the transitional period.

Product group	**Product examples**	**Significant environmental impact**[1]	**Significant potential for improvement**
Air-conditioning and ventilation systems	Large air conditioners > 12 kW; Water-cooled air conditioners; Ventilation systems.	High energy consumption (> 1 000 PJ/year), with long operating time (cooling/heating period, increasing ventilation time) and high-growth market; Other environmental impact of power electronics, displays and refrigerants.	High potential for energy savings (estimated average > 20%); Potential for other environmental improvements (e.g. substitution of refrigerants, extension of lifetime or easy recycling); Third-country specifications (Energy labelling, Eco-labels, Energy Star and MEPS) indicate potential for improvement.
Electric and fossil-fuelled heating equipment	Electric storage heating radiators; Electric heaters for space and soil heating; Gas- and oil-fired dry space heating systems; Heat pumps.	High energy consumption (> 1 000 PJ/year), with long operating time (heating period); Other environmental impact of power electronics, materials used and emissions of exhaust gases.	High potential for energy savings (estimated average > 20%); Potential for other environmental improvements (e.g. lower emissions or easy recycling).
Food-preparing equipment	Electric, gas-fired and microwave ovens; Hobs and grills; Coffee machines.	High energy consumption (> 1 000 PJ/year), with long operating time in the tertiary sector (about 8 hours a day) and energy consumption of integrated motor/fan.	High potential for energy savings (estimated 10-30%); Potential for other environmental improvements (e.g. easy recycling); Third-country specifications (Energy labelling, Eco-labels and MEPS) and Member States' eco-labels indicate potential for improvement.
Industrial and laboratory furnaces and ovens	Infra-red radiation ovens; Resistance-heated and electrical induction industrial and laboratory furnaces and ovens; Furnace burners.	High energy consumption (> 1 000 PJ/year), with long operating time (about 8 hours a working day) and energy consumption of integrated fan; Other environmental impact of materials used.	High potential for energy savings (estimated average > 20%); Potential for other environmental improvements (e.g. improved heat transfer systems or reduction of mass); Third-country specifications (Energy labelling and MEPS) indicate potential for improvement.

Product group	Product examples	Significant environmental impact[1]	Significant potential for improvement
Machine tools	Forming machine tools; Separating machine tools; Physico-chemical process machine tools.	High energy consumption (> 1 000 PJ/year), with long to very long operating time (up to three production shifts) and energy consumption of integrated motor; Other environmental impact of power electronics and wastage in use.	High potential for energy savings (low power factor of 0.7-0.8, improvement potential in idle modus and by variable speed drives); Potential for other environmental improvements (e.g. extension of tool lifetime, easy recycling of electronics or closed-loop recycling in use).
Network, data processing and data storing equipment	IT servers; Network communication equipment; Uninterruptible power supplies; Network stand-by losses for a group of products.	High energy consumption (> 1 000 PJ/year), with very long operating time (24 hours a day) and high-growth market; Other environmental impact of electronics.	Very high potential for energy savings (estimated 5-30% for products, 80% for systems, networked stand-by and power management); Potential for other environmental improvements (e.g. waste heat recovery or easy recycling); Third-country specification under development (Energy Star) indicates potential for improvement.
Refrigerating and freezing equipment	Service cabinets; Walk-in cold rooms; Chillers; Ice-makers; Ice-cream and milk-shake machines.	High energy consumption (> 1 000 PJ/year), with very long operating time (up to 24 hours a day); Other environmental impact of refrigerants.	High potential for energy savings (estimated 10-60%); Potential for other environmental improvements (e.g. substitution of refrigerants).
Sound and imaging equipment	DVD/video players and recorders; Video projectors; Video game consoles; Digital amplifiers and subwoofers for home theatre.	High energy consumption (> 1 000 PJ/year), with growth market; Other environmental impact of electronics and displays.	High potential for energy savings (estimated average > 20%); Potential for other environmental improvements (e.g. extension of lifetime or easy recycling); Third-country specifications (Energy labelling, Eco-labels and Energy Star) indicate potential for improvement.
Transformers	Distribution transformers; Power transformers; Small transformers.	High energy consumption (> 1 000 PJ/year), with very long operating time (24 hours a day); Other environmental impact of used oils, paints, etc.	High potential for energy savings (about 30% possible which is equivalent to about 15% of the electricity network losses, stock is nearing the end of its 40-year lifetime); Potential for other environmental improvements (e.g. materials used); Third-country specifications (Energy labelling, Eco-labels, Energy Star and MEPS) indicate potential for improvement.

Product group	Product examples	Significant environmental impact[1]	Significant potential for improvement
Water-using equipment	Water-cleaning appliances; Irrigation equipment.	High water losses due to inappropriate devices or equipment (about 14 billion m^3 a year in industry, about 53 billion m^3 a year in agriculture and about 24 billion m^3 a year in households and public facilities).	High potential for water savings (estimated average > 40% in industry and agriculture and > 30% in public water supply; e.g. individual adjustments of flow and pressure values or sprinklers and drips designed to operate on low to medium water pressure).

[1] Energy consumption is indicated as PJ of primary energy consumption in 2006. "Primary energy" means energy contained in fossil fuels and renewable energy sources that has not been subject to any conversion or transformation process. To convert electricity from the public grid (secondary energy) into primary energy, a factor of 10.5 MJ/kWh_e was applied.

ANNEX II

Table: Product groups covered in the transitional period[13]

Measures scheduled for adoption by the Commission in the 4th quarter of 2008 or 1st quarter of 2009
Tertiary sector lighting products
Stand-by and off-mode losses
External power supplies
Simple set-top boxes
Domestic lighting products I (including incandescent bulbs)
Televisions
Measures to be submitted for a vote in the Committee in 2008 and 2009
Boilers
Water heaters
Washing machines and dishwashers
Domestic refrigerators and freezers
Commercial refrigerators
Electric motors
Circulators (originally under electric motors)
Computers
Imaging equipment
Electric pumps (originally under electric motors)
Fans for ventilation in non-residential buildings (originally under electric motors)
Room air-conditioners
Domestic fans (originally under room air-conditioners)
Other measures (preparatory studies finishing in 2009)
Complex set-top boxes
Laundry driers
Vacuum cleaners
Domestic lighting products II (reflector lamps and luminaires)
Solid-fuel boilers

[13] The adoption schedule is approximate and subject to change, as it is adjusted to the real progress with the preparatory work.