Explanatory Memorandum accompanying

COMMISSION REGULATION (EC) No …/…

with regard to ecodesign requirements for vacuum cleaners
EXPLANATORY MEMORANDUM

CONTEXT OF THE PROPOSAL

Grounds for and objectives of the proposal

The environmental impact of vacuum cleaners in the EU is significant, in particular the electricity consumption in the use phase, which was estimated to be 18 TWh per year in 2005, corresponding to 6.6 Mt CO\(_2\) equivalent. Including production of the appliance and consumables the total impact of greenhouse gas emissions is 9-10 Mt CO\(_2\) equivalent.

In order to enable consumers to buy more energy-efficient vacuum cleaners, a labelling scheme is to be put in place with regard to energy labelling of vacuum cleaners. The scheme should provide standardised information on both energy consumption and cleaning performance, as well as on dust re-emission and noise power.

This delegated Regulation complements draft Commission Delegated Regulation implementing Directive 2010/30/EC\(^1\) of the European Parliament and of the Council with regard to Energy Labelling of vacuum cleaners.

General context

A main reason for the persistent sales of low efficiency, high-power vacuum cleaners is that end-users perceive that high rated power consumption is linked to higher cleaning performance. This leads them to choose cleaners with high power consumption and so low efficiency.

As a result, the power consumption of vacuum cleaners has risen steadily over the past decades. On average in 2005 the power consumption is estimated to be around 1500 W and in some countries like Germany it is believed to be closer to 2300-2400 W. At the current pace, the EU average in 2020 will be very close to the current German average.

Without many people realizing it, the average electricity consumption of the domestic vacuum cleaners has grown from around 60 kWh/year in 1990 to a forecast 120 kWh/year in 2020. At these values vacuum cleaners’ energy costs and impact compare with washing machines and dishwashers. Non-domestic (‘professional’) vacuum cleaners are much less power hungry (30% less power with better performance) and the increase in power consumption has been much less.

The main market failure is the perceived link between rated electric power and cleaning performance, which stands in the way of domestic consumers buying more energy efficient appliances.

Stakeholders, including the industry and consumer organisations, have asked unanimously for a combined introduction of ecodesign requirements and a labelling

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\(^1\) OJ L 153, 18.06.2010, p.1
scheme for vacuum cleaners.

According to the impact assessment, the total stock of vacuum cleaners of 288 million units was responsible for an annual electricity consumption of 18 TWh in 2005 in the EU-27. Without further action this would increase to 34 TWh in 2020. The increase is mainly due to continuing rise in population, dwelling size and (above all) the increase in power consumption. The aim of the proposal is to reverse the expected increase in energy consumption of these appliances. It is estimated that the combined effect of the new ecodesign requirements set out in this draft Commission Regulation and the labelling scheme set out in the draft delegated Regulation implementing Directive 2010/30/EU would lead to a reduction of 19 TWh in 2020.

**Existing provisions in the area of the proposal**

The draft Commission Delegated Regulation implementing Directive 2010/30/EC will provide for energy labelling of vacuum cleaners, but no other mandatory measures or voluntary initiatives exist for vacuum cleaners.

Generic legislation, with relevance for vacuum cleaners, includes:


- Directive 2006/95/EC\(^4\) of the European Parliament and of the Council of 12 December 2006 on the harmonisation of the laws of Member States relating to electrical equipment designed for use within certain voltage limits (codified version) (Text with EEA relevance);


**Consistency with the other policies and objectives of the Union**

Increased market take-up of energy-efficient vacuum cleaners, through the introduction of these ecodesign requirements together with energy and cleaning performance classes will contribute to achieving the 20% energy savings potential

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\(^3\) OJ L 174, 1.7.2011, p. 88.  
anticipated by 2020.

Furthermore, implementation of Directive 2009/125/EC\(^7\) contributes to the EU’s objective to attain a reduction in greenhouse gases of at least 20\% in 2020.

Promotion of market take-up of efficient vacuum cleaners complies with the Europe 2020 agenda and its 20\% energy savings target by the year 2020, as it aims to support more efficient and sustainable use of resources, protect the environment, strengthen EU’s leadership in developing new green technologies, improve the business environment and help consumers make more informed choices.

The European Economic Recovery Plan (COM(2008) 800) mentions energy efficiency as one of the key priorities, in particular the promotion of the rapid take-up of products offering a ‘high potential for energy savings’, such as vacuum cleaners.

Finally, it will contribute to the objective of decoupling economic growth from the use of resources set out in the Europe 2020 strategy (COM(2010) 2020) under the ‘Resource-efficient Europe’ flagship initiative.

**CONSULTATION OF INTERESTED PARTIES AND IMPACT ASSESSMENT**

**Consultation of interested parties**

*Consultation methods, main sectors targeted and general profile of respondents*

International and EU stakeholders and Member State experts were consulted from the very beginning of the preparatory study, and, together with energy labelling, ecodesign requirements were discussed in the "Consultation Forum", which is established by the Ecodesign Framework Directive 2009/125/EC\(^8\). The Consultation Forum is composed of the experts of the Member States and a balanced representation of stakeholders, namely environmental and consumer NGOs, retailers and manufacturers. During the meetings of the Consultation Forum of June 2010 and of September 2011 the Commission staff presented a working document suggesting ecodesign requirements and an energy efficiency ranking for vacuum cleaners.

All relevant working documents were circulated to the experts and stakeholders, and published in the Commission's CIRCA system alongside the stakeholder comments received in writing. In addition, the initiative was discussed on many occasions at meetings of Commission staff with stakeholders and Member States, but also with international partners. The draft delegated regulation was notified to the WTO/TBT, to ensure that no barrier to trade is introduced.

*Summary of responses and how they have been taken into account*

In general the imposition of energy efficiency and other ecodesign requirements for vacuum cleaners is well supported by stakeholders and Member States. The following responses on main aspects of the proposal were received:

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Product scope and classification

The appliances to be covered are domestic and non-domestic dry vacuum cleaners. Wet, wet & dry, industrial, central, battery and robot-types as well as floor polishers and outdoor vacuums are excluded, because performance standards are not in place and their environmental impact is relatively small compared to the impact of dry vacuum cleaners.

Energy efficiency requirements

In line with stakeholder proposals the ecodesign requirement is for a maximum ‘annual energy consumption’ (in kWh/yr). This in turn depends both on the power consumption (in W) of the vacuum cleaner and the cleaning performance (in dust pick-up, dpu) for carpets and hard floors with a crevice.

Timing

Manufacturers and retailers emphasised that, due to the new energy efficiency calculation and measurement method, time is needed to (re)test all vacuum cleaners and produce the necessary information. The draft delegated Regulation therefore integrates this time constraint.

Other requirements

Dust re-emission, the fraction (in %) of small particulate (0.4-10 μm) dust (re)emitted by the vacuum cleaner as a percentage of the number of small dust particles picked-up at its inlet during standard test conditions, was identified by stakeholders as an important health parameter especially for users with respiratory problems. Another relevant parameter, and an important selling feature for certain market segments, is the noise power (in dB re1μW). However, several stakeholders, especially Member States, recognised the importance of noise power but felt that any requirement should not be set at stringent level, as this might adversely affect energy efficiency and/or cleaning performance.

Collection and use of expertise

Input from scientific expertise

A preparatory study and an impact assessment provided the relevant technical, market and economic analysis needed for setting the ecodesign requirements. They were carried out by consortiums of external consultants on behalf of the Commission's Directorate General for Energy (DG ENER).

Main organisations/experts consulted

The preparatory study was conducted in an open process that took into account input from relevant stakeholders including manufacturers and manufacturing associations, environmental NGOs, consumer and retail organizations, EU/EEA Member State experts and international organizations such as the International Energy Agency (IEA). The draft measure was notified to the WTO within the TBT agreement.
Summary of advice received and used

No potentially serious risks with irreversible consequences were mentioned.

Impact assessment

Ecodesign requirements have to be considered together with other policy options such as self-regulation or energy labelling. An impact assessment was carried out pursuant to Article 15(4)(b) of Directive 2005/32/EC which also examined the option of labelling. The options listed below were discarded at an early stage:

- No EU action. This option was discarded since this option would not meet the objectives laid down in the Ecodesign and Energy Labelling Directives Framework Directives;
- Support a voluntary commitment by the relevant industry. This option was discarded as no such proposals were made by the industry;
- Adopt ecodesign requirements only. This option was discarded because introducing strict ecodesign requirements without a proper explanation to the consumer on how it could affect the cleaning performance could be highly disruptive in the market place and would pose a barrier to consumer acceptance to the measure. If such an explanation would be lacking the measure should probably also be less ambitious;
- Adopt labelling scheme only (without ecodesign requirements). This option was discarded as it would not achieve the expected savings.

Consequently, the option composed of the adoption of ecodesign requirements together with a labelling scheme was chosen, as it delivers most savings and is also preferred by all stakeholders.

It will ensure that:

- Ongoing energy improvements are maintained and fostered;
- Fair competition and product differentiation continues to operate on energy improvements;
- The cost-effective level of energy consumption is reached;
- The competitiveness of the industry is supported through the expansion of the EU internal market for sustainable products;
- The burdens on suppliers including SMEs are not excessive, as the transition periods take redesign cycles into account;
- There is no negative impact on employment in the EU.

LEGAL ELEMENTS OF THE PROPOSAL

Summary of the proposed action
The measure sets out new ecodesign requirements for suppliers placing vacuum cleaners on the market. The scope of the measure is aligned with the scope of the draft Commission Delegated Regulation implementing Directive 2010/30/EU, which requires an energy label, and other information on energy classification, annual energy consumption, cleaning performance, noise power and dust re-emission for vacuum cleaners.

Measurement methods and the verification procedure for market surveillance purposes are fully aligned with the draft Commission Regulation implementing Directive 2009/125/EC.

**Legal basis**

The proposed Regulation is an implementing measure under Directive 2009/125/EC, and in particular its Article 15(1). The Directive is based on Article 114 TFEU.

**Subsidiarity principle**

The draft delegated Regulation implements Directive 2009/125/EC.

The subsidiarity principle applies insofar as the proposal does not fall under the exclusive competence of the Union.

The objectives of the proposal cannot be sufficiently achieved by the Member States, because the adoption of different Ecodesign measures for vacuum cleaners by individual Member States would lead to obstacles to the free movement of goods within the Union.

Action at EU level will therefore better achieve the objectives of the proposal, as the setting of harmonised Ecodesign requirements will avoid fragmentation of the internal market and provide a level playing field for all.

In line with the principle of subsidiarity, it is thus appropriate for the measures in question to be adopted at EU level.

The scope of the proposal is limited to the harmonisation of Ecodesign requirements, while implementation and market surveillance will fall under the responsibility of the Member States.

The proposal therefore complies with the subsidiarity principle.

**Proportionality principle**

The proposal complies with the proportionality principle for the following reasons.

In accordance with the principle of proportionality, this measure does not go beyond what is necessary in order to achieve the objective.

The form of the implementing measure is a delegated Regulation which is directly applicable in all Member States. This ensures that national and EU administrations will not incur any costs for transposition of the implementing legislation into national
legislation.

In terms of conformity assessment, the extra costs will cover both these ecodesign measures, and energy labelling.

**Choice of instrument**

Proposed instrument: Regulation.

Other means would not be adequate for the following reasons.

The proposed form of action is a Commission Regulation (implementing Directive 2009/125/EC), because the objectives of the action can be achieved most efficiently by fully harmonised requirements (including timely entry into force) throughout the EU, thus ensuring the free movement of compliant products.

**BUDGETARY IMPLICATION**

There are no budgetary implications for the EU budget.

**ADDITIONAL INFORMATION**

**Repeal of existing legislation**

None.

**Review/revision/sunset clause**

The draft includes a revision clause.

**European Economic Area**

The proposed act concerns an EEA matter and should therefore extend to the European Economic Area.