



**Position on the Commission' proposal to revise the Fans regulation 327/2011  
Lot ENER 11**

May 2015

Following the Ecodesign Consultation Forum Meeting of 30<sup>th</sup> April 2015, we have put forward our views below.

**General comment**

We strongly support the Commission's proposal to keep fans integrated into other products in the scope of the review proposal. This important provision needs to be maintained as fans integrated into other products represent a large share of the fans' market and their related energy consumption. Smaller size fans and their motors (below 1 kW) are produced worldwide in millions.

When a fan is ready to be shipped from a factory, it is impossible to tell if it is going to be sold as a stand-alone fan or be sold to an original equipment manufacturer and later integrated into a larger product. Not including them would mean taking the risk of creating a massive loophole, as it would be difficult, if not impossible to reject the claim that a component is manufactured for use in another regulated product.

All products benefit from having better fans, there are no technical or economical disadvantages. The industry is questioning this fact without having proved nor quantified the impact on price and energy efficiency that is stated.

**Proposal for changes**

Fans integrated in kitchen hoods - article 1, 2 c)

The exemptions listed in Article 1, 2 need to be limited in number and avoided in general. Applications exempted should be clearly specified and technically justified. Kitchen hoods generally contain extremely low-efficient fans and motors. Even if some of them are only used for a limited number of hours per year (which is also the case of washing machines for example, which are mostly used only 100 to 200 hours per year), their inclusion in the scope should be considered. We believe that it would push for a needed technology change.

→ Include fans < 280 W in the scope of the proposal.

Exemption of spare parts - article 1, 3 o)

We believe that this exemption is unnecessary and in practice irrelevant: fans have few parts that wear off (only bearings that can easily be replaced after 50 000 hours of use). Dirt can be removed either by filters or by regular maintenance. The fan housing and impeller have very little wear if they are not obstructed for instance by vandals. An eventual - rarely occurring - replacement for an impeller is in most cases easily possible even if meanwhile better performing fan blades are required.

Furthermore, we support the Netherlands' point on the risk of spare parts becoming a loophole and the need for a product registration system to follow spare parts, with a clause that if a sudden rise in market share occurs, measures will be taken.

→ We therefore recommend to remove this exemption. Should this not be the preferred option, please note that we see a 5 year exemption as an absolute maximum.

#### Inclusion of small fans - article 2, Definitions, 1)

Small fans (from 30W to 125 W) should be included in the regulation's scope. The existing Ecodesign regulations 1253/2014 on "Ventilation units" and 66/2014 on "Domestic hobs, ovens and range hoods" together with 327/2011 still leave a gap for smaller fans. This group of fans with an electric input from 30 W to 125 W is produced and imported in millions every year and mostly used in "low tech" applications without engineering advice for sales and application. Their efficiency is very low (around 20%) and could be lifted according to industry data to at least 40%. Progressive industries in Europe support this extension.

The Commission explained during the Consultation Forum meeting on 30<sup>th</sup> April 2015 that small fans having very diverse applications and very different numbers of running hours, the one-year review did not give sufficient time to make an extension proposal. The lesson should be learnt by at least including this proposal in the next review clause, and anticipating the time needed to prepare this awaited inclusion.

→ Small fans should be included in the scope of the regulation, or the possibility of including them at least mentioned in the review clause.

#### Ecodesign requirements, - article 3, 1), Annex II, and Annex VI table

- The legislative proposal shows a moderate increase in fan efficiencies after 2020 from the level of 2015. Although high efficiency levels are already easily achieved today by frontrunner products (see benchmark values in Annex VI), the proposed curves are reasonable and should be maintained for all applications (including industrial applications).
- The slope of efficiencies for all types of fans <10 kW and fans >10 kW is identical. This is considered as a major improvement. The methodology has been streamlined using similar algorithms for different types and geometries of fans.
- The reduction of fan types from 6 to 5 is an improvement. The presentation of the tables is clearer. The methodology for fan efficiencies depending on air flow geometry, impeller types and input power size has been streamlined using fewer types of fans leaving the competition between different fan technologies and geometries open.  
As a future objective, a common, ambitious efficiency requirement should be set, independent of fan technologies and geometries, removing the remaining least efficient fan types from the market.

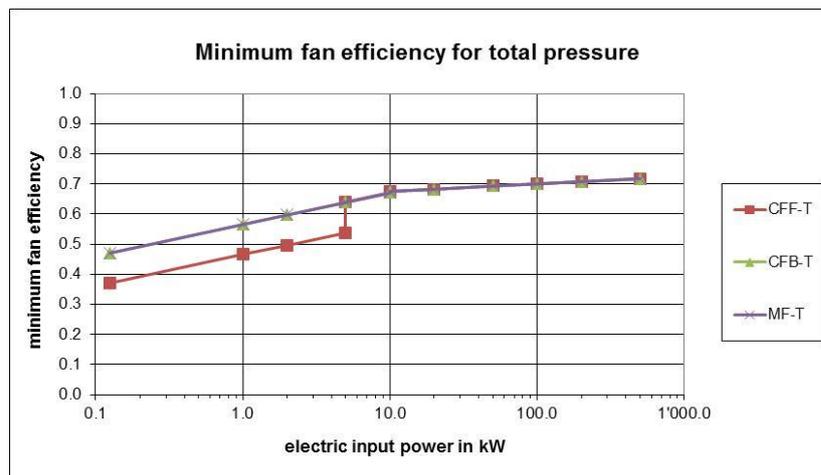
→ The initial review clause objective should be maintained in the new regulation.

- However, the inclusion of the very inefficient cross flow fans category is not acceptable. Indeed, this is by far the lowest efficiency product in the entire range of fan technologies and geometries in Regulation 327/2011. Only very few dedicated applications need this type of fans. If it is claimed that its improvement is limited by physics, industry needs to replace this technolo-

gy by other types of air movements by 2020. We therefore also challenge the crossflow fan benchmark of 0.13 below the tier benchmark of 0.21 in Annex VI.

→ Should the cross flow fans category be maintained in the regulation, an indication of their very low efficiency and a clear disclosure of products containing them should be foreseen.

- Annex II defines for forward-curved, radial as well as for backward-curved fans a new intermediary threshold at 5 kW. This leads to an implausible jump in efficiency with a discontinuous curve:



Forward-curved fans have as determined by physics an inferior efficiency compared to the backward curved fans. Backward-curved fans can continuously eliminate the need to newly install (or replace) forward-curved fans because they generally fit into the same type and size of housing. There are only very few exceptions for which the replacement of old forward-curved fans will imply changes in the housing.

A five-year timeframe is therefore enough for the industry to upgrade their products and ensure the compatibility of the superior product with the space requirement of the inferior product.

→ The two categories of forward curved and backward curved fans should be merged into the combined category with the higher efficiency by 2020.

#### Entry into force – Article 8

The existing regulation 327/2011 cannot be repealed immediately as it would leave a gap between Tier 2 of the existing regulation (which took effect on 1 January 2015) and the new revised regulation starting in 2018.

→ Find an adequate legal way to ensure continuity between the different regulations/tiers.

#### Information requirements, Annex III

Regarding point 1), we would like to repeat our comment that the information on fans shall be visibly displayed on:

- ✓ the rating plate of the fan; it shall include on the lower right bottom a QR-code that links directly to the respective technical documents on the manufacturer's website.
- ✓ the rating plate of the motor; it shall include on the lower right bottom a QR-code that links directly to the respective technical documents on the manufacturer's website.

→ The rating plate of the fans and motors should include a QR code linking to the technical information on the manufacturers' website

The point 6) proposal of indicating the total weight per fan of the permanent magnets used in the motor is a step in the right direction. However, we would propose the following amendments:

- The indication should be restricted to “magnets containing rare earth material” thereby encouraging the permanent magnets manufactured without rare earth materials.
- The focus should not be on the weight of rare earths materials but on the indication of the type of materials, and on ensuring that this information is easily accessible. This information should therefore at least be available on the nameplate of the product.

With regards to the question of a possible overlap with the WEEE Directive, we would like to mention again Recital 11<sup>1</sup> and article 4<sup>2</sup> of the WEEE Directive that clearly state the supplementary role for Ecodesign implementing measures to specify information or design requirements needed to fulfil the WEEE objectives. Moreover, in its article 15<sup>3</sup>, the WEEE Directive requires from producers of EEE only in rather general terms to provide relevant information to recyclers in manuals or by means of electronic media. The above mentioned information requirement would therefore not duplicate information on rare earths in permanent magnets, but instead make the specific information accessible to recyclers, when they have to deal with the product at their facilities.

→ The information requirement on permanent magnet should target the type of rare earth materials rather than the weight, and be displayed on the name plate.

Finally, we also invite the Commission to include proposals on how to improve the durability of fans. Many different test standards exist for fans ([link](#)) and manufacturers state to have their own cyclic or long term durability testing in place ([link](#)). A mapping of existing durability standards/tests and suggestions on their possible uses would be a first step.

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<sup>1</sup> Ecodesign requirements facilitating the re-use, dismantling and recovery of WEEE should be laid down in the framework of measures implementing Directive 2009/125/EC. In order to optimise re-use and recovery through product design, the whole life cycle of the product should be taken into account.

<sup>2</sup> Product design

Member States shall, without prejudice to the requirements of Union legislation on the proper functioning of the internal market and on product design, including Directive 2009/125/EC, encourage cooperation between producers and recyclers and measures to promote the design and production of EEE, notably in view of facilitating re-use, dismantling and recovery of WEEE, its components and materials. In this context, Member States shall take appropriate measures so that the eco-design requirements facilitating re-use and treatment of WEEE established in the framework of Directive 2009/125/EC are applied and producers do not prevent, through specific design features or manufacturing processes, WEEE from being re-used, unless such specific design features or manufacturing processes present overriding advantages, for example, with regard to the protection of the environment and/or safety requirements.

<sup>3</sup> Information for treatment facilities

In order to facilitate the preparation for re-use and the correct and environmentally sound treatment of WEEE, including maintenance, upgrade, refurbishment and recycling, Member States shall take the necessary measures to ensure that producers provide information free of charge about preparation for re-use and treatment in respect of each type of new EEE placed for the first time on the Union market within one year after the equipment is placed on the market. This information shall identify, as far as it is needed by centres which prepare for re-use and treatment and recycling facilities in order to comply with the provisions of this Directive, the different EEE components and materials, as well as the location of dangerous substances and mixtures in EEE. It shall be made available to centres which prepare for re-use and treatment and recycling facilities by producers of EEE in the form of manuals or by means of electronic media (e.g. CD-ROM, online services).