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**Position of ECOS, EEB, CAN-Europe,
INFORSE-Europe, Greenpeace and WWF**

**on the EC Working Documents on possible ecodesign requirement for
electric motors, pumps, circulators and ventilation fans**

*In the context of Directive 2005/32/EC establishing a framework for the setting of ecodesign
requirements for energy using products.*

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Contacts:

ECOS – European Environmental Citizens' Organisation for Standardisation
Edouard Toulouse, Ecodesign Officer
Tel: + 32 2 289 10 96 / E-mail: edouard.toulouse@ecostandard.org

INFORSE – International Network for Sustainable Energy - Europe
Gunnar B. Olesen
Tel: + 45 86 22 70 00 / E-mail: ove@inforse.org

EEB – European Environmental Bureau
Nathalie Cliquot, Policy Officer on Waste and Products
Tel: + 32 2 289 10 97 / E-mail: nathalie.cliquot@eeb.org

CAN – Climate Action Network Europe
Katherine Watts, Policy Officer
Tel: +32 2 229 52 22 / E-mail: katherine@climnet.org

Greenpeace European Unit
Mahi Sideridou, EU Climate & Energy Policy Director
Tel: + 32 2 274 19 04 / E-mail: Mahi.Sideridou@diala.greenpeace.org

WWF-Europe
Mariangiola Fabbri, Energy Efficiency Officer
Tel: + 32 2 740 09 34 / E-mail: mfabbri@wwfepo.org

**Position of ECOS, EEB, CAN-Europe,
INFORSE-Europe, Greenpeace and WWF**

**on the EC Working Documents on possible ecodesign requirement for
electric motors, pumps, circulators and ventilation fans**

ECOS, EEB, CAN-Europe, INFORSE-Europe, Greenpeace and WWF (hereafter “Environmental NGOs”) **welcome and support the introduction of mandatory ecodesign requirements on electric motors, pumps, circulators and fans.**

These products are very commonly used in industry and household equipment and represent a high share of the EU global energy consumption.

Environmental NGOs consider the four preparatory studies and Working Documents to be well-designed input to the discussion and a sound basis; however they do not propose ambitious enough policy options and timelines, particularly as they rely on static energy prices that might rapidly prove outdated. More ambitious requirements should therefore be the top priority.

Environmental NGOs would like to add the following detailed comments on the Working Documents, first general ones and then by product type:

General comments

- Timelines for the tiered requirements on energy efficiency and revisions should be substantially rushed, in order for the Ecodesign policy to reach its full ecodesign potential earlier than 2020. The European Union is late in setting ecodesign requirements and should immediately target an ambitious level.
- These timelines could be better coordinated; in the documents one can find references to 2010, 2011, 2012, 2015, 2020, “one year after implementation”, “four years after implementation”, “five years after implementation”.
- Environmental NGOs question the choice to completely drop any generic requirement on design for recycling. The Preparatory studies on motors (p.106) and fans (p.160) recommended such requirements to improve dismantling, reduce non-recyclable parts and minimise waste.
- Environmental NGOs support that motors used in pumps and fans should also comply with the requirements on electric motors.
- The suggested measures regarding public procurement at national, regional and local levels should be made mandatory, rather than just be “encouraged”.
- Implementation of the suggested ecodesign requirements should be clarified for exports and components built into systems.
- Some of the terminology used should be better defined: it is unclear whether the power measured in Watts has the same meaning in all Working Documents (electrical power or mechanical load?). International SI-terminology should be used. For instance pressure must be measured in Pascal rather than meters and diameters in meters rather than inches.

Comments on electric motors

Scope

- The upper limit of the scope should be clearly set at 370 kW. As stated in standardisation processes and US legislation, there is no rationale to limit the scope to 200 kW. We propose to set the lower limit at 0.5 kW (rather than 0.75 kW).
- For equipment sold and used in Europe, the reference to 60 Hz motors or combinations seems unnecessary.
- The details of the scope should be coordinated with the final IEC standard 60034-30, so that no other exemptions or loopholes are introduced.

Timeline and ambition of the requirements

- The first tiered requirements on energy efficiency set at the earliest possible date (i.e. 2010 or 2011) seem reasonable, as the IE2 efficiency level only represents 10 to 15% of the market share today whereas the technology has been available for 10 years already.
- On the opposite, the second tier at IE3 level is far too late: it would be unacceptable for the EU to take so much delay in comparison to the US policy, where the IE3 level will be mandatory as soon as 2011. The technology to reach IE3 is already known. Any delay beyond 2012 will result in flooding the EU market with less efficient Chinese and American imports and undermine the progress towards the most efficient technologies. So Environmental NGOs support a 2nd tier in 2012.
- This second tier should cover the full scope of motors between 0.5 and 370 kW. As far as smaller motors are concerned, the issue that IE3-rated motors between 0.5 and 7.5 kW might not fit into the IEC frame sizes has been resolved, and the respective requirements in IEC 60034-30 have been lowered. Given the large number of motors produced in this size range and consideration of life-cycle costs, there is no reason to exempt them.
- Annex I.c) requirement on product information should start as soon as the legislation enters into force.
- The Working Document highlights the importance of system and installation related requirements but fails to provide a clear process to address them. Environmental NGOs encourage the Commission to draft a parallel legislation on installation, in a similar approach to the policy for lighting and luminaires.

Comments on pumps

Scope

- The subdivision of the scope into six end-suction and three multistage pumps is questionable. It may not lead to promote the most efficient options when designing a pumping system. Moreover the respective C-values are relatively close to each other.
- Environmental NGOs suggest adding pumps for waste water to the scope.
- Minimum and maximum sizes (P, H and n) should be more clearly defined.

Timeline and ambition of the requirements

- The proposed requirements clearly lack ambition. The Preparatory study has shown that for most models the least life-cycle cost is reached when setting the cut off level at 70% (or even 80%)¹. Therefore the ultimate target of Ecodesign should at least be the C=70% value.
- A first tier at C=10% does not seem to make much sense. The first tier should target the intermediate value C=40% and be set in 2012.
- The second tier in 2015 should be set at C=70%. We remind that BATs already reached the 80% level.
- Environmental NGOs suggest further discussing a solution to take into account the importance of part load performance. The Preparatory study emphasised that *“because pumps spend much of their time working away from their rated duty, and efficiency can fall off rapidly below the 50% duty point, any scheme should take into account of this real life performance.”*
- Environmental NGOs support a product information requirement, giving comprehensible enough indication of the performance of the product compared to a benchmark (which could be in the form of an A-G rating). The user manual should include consumption figures for typical use patterns and highlight the savings through variable speed control.
We propose that pumps without variable speed control bear a mandatory indication that they lack such a control and that it is highly recommended to use an external variable speed control for energy saving purposes.

Comments on circulators

Scope

- Environmental NGOs suggest introducing a minimum size (e.g. 10 W), in order to avoid wasteful efforts with very little pieces of equipment.
- We question why boiler-integrated circulators are not covered and ask for clarification on the Ecodesign policy for such products: is it foreseen in the Implementing Measure for Lot1 with an equivalent level of ambition?
- Drinking water pumps should be included in the scope.

Timeline and ambition of the requirements

- Environmental NGOs call for a more dynamic approach, with further tiers.
- Looking at benchmarks for best products, we believe the first tier could be set at $EEL < 0.25$ and start as soon as possible (rather than 2012).
- A second tier in 2013 should target the level $EEL < 0.15$.
- The existing voluntary labelling scheme for small pumps should be made official and mandatory, and upgraded into more classes to avoid the confusing “A/A*/A***” rating.

¹ « Life Cycle cost analysis shows that, for most types of pumps, under typical operating conditions, it is cost effective to the user to select pumps that are within the current top 30% of pumps.” (p. 196)

Scope

- Millions of fans in the range 50-100 W are produced and installed. Therefore Environmental NGOs insist on the need to cover them, either in this implementing measure or in the one from Lot 10.
- The subdivision of the scope into eight categories is questionable, especially for competing options. It may not lead to promoting the most efficient technologies. As a general rule, Ecodesign requirements should be as technology-independent as possible.
- The term “Power Range” could be misleading: it should generally refer to the optimum or nominal power of the fan.

Timeline and ambition of the requirements

- For the first tier, the requirements for 10 kW to 500 kW fans should be power-dependent (or further subdivided). There is at least a 5% difference in motor efficiency between a 10 kW and a 500 kW fan. The levels proposed are too low for larger motors and fan combinations.
- Most of the requirements are unchanged in the second tier. This appears contradictory to a dynamic approach, and will not promote innovation. Above 20 kW, only MEL4-equivalent values should be given, with which all other categories must comply.
- The third tier comes far too late: a much more ambitious legislation is required, as the trend justifies it². Therefore Environmental NGOs suggest to set the third tiered requirements no later than 2015.
- Environmental NGOs consider the product information requirement insufficient (i.e. too technical and restricted to catalogues). Even if the Preparatory study considered that energy labelling would be “*complex*”, we encourage a comprehensible information on the product itself, enabling buyers and users to know the overall performance of the product compared to a benchmark. The user manual should also include consumption figures for typical use patterns and highlight the savings through variable speed control.
We propose that fans without variable speed control bear a mandatory indication that they lack such a control and that it is highly recommended to use an external variable speed control for energy saving purposes.
- In the calculation, values for belt drives should be distinguished between flat belts and wedge belts (where flat belts are better by 5%).

END

² Page 171 of the Preparatory study: even with the mandatory efficiency requirements considered “*the overall electricity consumption for fans will continue to rise, due to a much faster growth of number of units compared to improvements in energy efficiency.*”