Brussels, 3 February 2010

Position of ECOS (on behalf of Environmental NGOs)

on the updated Working Document for an Ecodesign Measure on fans

(version of 18 December 2009)

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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Main comments

Compared to the previous Working Document discussed in May 2008, this new version includes a few improvements.

For instance, the curves of the minimum requirements between 10 kW and 500 kW at least show a slight slope, which is more realistic.

However, we still believe that **the overall level of ambition is insufficient and not challenging enough for the industry**. This is especially true for the 2nd tier in 2015, if compared to current benchmark models available on the market.

We also regret the lack of a steady effort to **limit the number of fan categories**. The 6 proposed categories should be merged into 2 or 3, so that **the various fan technologies can compete with each others within a category**. This would trigger more energy savings and really transform the market. Some of the existing fan technologies (cross flow fan, box fan, roof fan) should not stay on the market if they cannot reach as good an energy performance as axial and backward curved fans. **These two latter technologies should set the standard for the 2nd tier.**

Another concern is that the proposed formulas in ANNEX II result in **several curves crossing between 0.1 and 10 kW**. This does not seem to be an ideal solution. In paragraph 4.2., we propose the following slight adaptation to the first formula for the target efficiency:
4.50.ln(P) – 10.36 + N.

We also call for limiting the application of cross flow fans to a maximum power of 20 kW.

We insist that these Ecodesign measures for fans within 125 W – 500 kW power range should be **complemented by similar measures for the large market of small fans** below 125 W (For fans above 500 kW, the need for a regulation is maybe less obvious).

Detailed remarks

- In Chapter 1 *Subject matter and scope*, it could be useful to specify that "the Ecodesign requirements are based on a fan supplied as a final assembly together with an electrical motor but no variable speed drive. For fans supplied without a motor, a specific calculation of the reduction of the efficiency with the motor is provided. For fans supplied with a variable speed drive, a bonus is applied to the efficiency calculation."

- In Chapter 2 *Definitions* (1), the criteria "work per unit mass" is unclear, probably irrelevant and not really needed. We propose to delete the mention of the work per unit mass limit.

- In the same definition, we suggest adding " – may or may not be equipped with a variable speed drive".

- In Chapter 3 *Ecodesign requirements*, it should be clarified that the timetable refers to the date of production. It is the production of the fan alone or the fan assembly with a motor.

- In ANNEX I, we suggest adding to point 1.(14) that "the efficiency grade gives the target efficiency for an input power of 10 kW".

- In ANNEX I, point 1.(15), about the exclusion of variable voltage controllers: should the part load compensation factor for VSD in the ANNEX II calculations also be applied to variable voltage controllers?

- In efficiency requirement tables 1 and 2, the word "fan" is missing in the box "Centrifugal backward curved without housing".

- In ANNEX I point 3.(4), the expression "efficiency grade" is defined later in the document as N. Is it here the "fan efficiency" only?

- In ANNEX II, point 3.1(a), the last sentence should be clarified into "Pe is the power measured at the mains input terminals to the motor of the fan when the fan is operating…"

- In ANNEX II, 3.1(b), the same C_c factor as in point 3.2 should be used.

- In ANNEX II, point 4.2, the expression "open wheel" should be replaced by "fan without housing".

END.