EVIA position on the revision of the Regulation (EU) No 327/2011 on ecodesign for fans (ENER Lot 11) following the 1 April 2022 Consultation Forum

28 April 2022

The European Ventilation Industry Association (EVIA) welcomes the opportunity to provide comments to the ENER Lot 11 process reviewing Regulation (EU) No 327/2011 on ecodesign requirements for fans. EVIA is a strong supporter of the EU legislative framework for energy-related products (ErP), as it contributes to the realisation of energy efficiency and Europe's climate objectives. As such, we recognise the need to reduce the environmental impact of ErPs by introducing resource and material efficiency requirements through ecodesign legislation.

In addition to our comments sent before the Consultation Forum of 1 April 2022, EVIA would like to reemphasize and add various recommendations. The table below depicts the Commission in the left table and the EVIA recommendations in the right one.

Commission proposal presented on 1 April 2022	**EVIA recommendations**
Art. 1 – Subject matter and scope This Regulation shall not apply to fans which are specified to operate exclusively and are clearly marketed as such: e) in wind-turbines;	Recommendation: delete wind turbines Regarding the proposed exclusions contained within the draft Articles 1(2) and 1(3), EVIA notes that several Member States and stakeholders are asking for more fans categories and applications are added to the list of exclusions. EVIA opposes adding more exclusions and believes that some should be removed. EVIA notes that one of the objectives of the ENER Lot 11 review study in 2014 was to assess the feasibility of reducing the number of fan types and to reduce the scope of exemptions. However, we note that the scope of exemptions has increased. At the Consultation Forum of 1 April 2022, EVIA asked why fans in wind turbines are proposed to be excluded, noting that currently fans that exceed the proposed new limits are already being used in wind

	turbines. VHK, the consultant working on ENER Lot 11, informed that one manufacturer of wind turbines had advised that one application of a fan in the rotor of the impeller could adversely affect to aerodynamic efficiency of the wind turbine. If this is the case, a specific exclusion should be stated instead of exempting the complete product. In the current wording, all other applications of fans in wind turbines are given exclusion while it is not necessary. Exclusions provide loopholes to avoid regulation. A Member State asked to exclude fans in large electrical converters, as they would last 30+ years and that fans used within the application would need to be replaced every 7 to 10 years. The Member State claimed that more efficient fans may not fit. Adding this product to the list of exclusions provides a loophole in which manufacturers placing a fan on the market can claim it does not need to meet the minimum efficiency limits, as it is intended to be used in a larger converter. EVIA believes that this is a potential loophole. The solution to the Member State concern is provided in the proposed draft with the requirement to provide spare parts and information in Annex II.4 and II.5. With these provisions, the fan can be repaired and reused every 7 to 10 years. Additional exclusions are not necessary, for the same reasons as mentioned above: EVIA is opposing any potential loopholes.
Art. 1 – Subject matter and scope This Regulation shall not apply to fans which are specified to operate exclusively and are clearly marketed as such: j) handling abrasive substances with a hardness of at least 5 Mohs with a concentration of at least 100 mg/m³;	Please see the previous EVIA position on this item. We recommend changing the text as follows: j) handling abrasive substances with a hardness of at least **2** Mohs with a concentration of at least **10** mg/m³;
Art. 1 – Subject matter and scope This Regulation shall not apply to fans which are specified to operate exclusively and are clearly marketed as such:	Please see the previous EVIA position on this item. We recommend changing the text as follows:

m) handling gases with a solid particle concentration equal or above 200 mg/m³ and/or particles with an average diameter of 1 mm or more;	m) handling gases with a solid particle concentration equal or above **10** mg/m³ and/or particles with an average diameter of **0.1** mm or more;
Art 2 – Definition (2)(d) protective grids, when they cannot be removed without making the fan ineffective.	This will have a serious impact on some manufacturers imposing a cost of some € 10 (see EVIA's position paper on permanently fixed guards of 10 November 2021). This change in the regulation will result in manufacturers changing to removeable guard, increasing the risk of a hazard occurring. An alternative proposal is for manufacturers to provide details of the loss of the non-removeable guard: for example, a correction factor defined by the spacing of the protective grid. This will provide a means to determine the efficiency without the guard fitted. This will have the least impact on market surveillance authorities and manufacturers. EVIA can provide a proposal for the correction factor based on grid spacing as defined in EN ISO 13857.
Annex II.1 – Ecodesign requirements for fans that are not incomplete fans – Minimum fan efficiency requirements The minimum fan efficiency (η_{min}) values of all fans in scope are a function of the electric input power P_e (in kW) and efficiency grade N following the equations: subject to the following conditions: – For non-reversible dual use fans designed for both ventilation under normal conditions and emergency use as set out in Art. 1, 3 (b), the values of the minimum efficiency grades set out in Table 1 will be multiplied by a factor 0,90. – For reversible fans, for dual use or not, the values of the minimum efficiency grades set out in Table 1 will be multiplied by a factor 0,85.	EVIA requests clarification: – If the minimum efficiency grades for non-reversible fans, not for dual use, are those set out in Table 1, – If the minimum efficiency grades for non-reversible dual use fans are those set out in Table 1 multiplied by 0,90, – If the minimum efficiency grades for reversible fans not for dual use are those set out in Table 1 multiplied by 0,85, Then to have a coherent and treat reversible fan for dual use fairly, their minimum efficiency grades should be lower than those for reversible fans not for dual use. For example, those set out in Table 1 multiplied by 0,85*0,90=0,76.

Annex II.1 – Ecodesign requirements for fans that are not incomplete fans – Minimum fan efficiency requirements The minimum fan efficiency (η_{min}) values of all fans in scope are a function of the electric input power P_e (in kW) and efficiency grade N following the equations: subject to the following conditions: – Minimum requirements for jet fans ≥5 kW apply only in Tier 2. For jet fans the efficiency parameter is the jet-fan impeller efficiency ηr(T) and instead of the electric input power P_e the equations above shall use the mechanical power supplied to the impeller of the fan P_r (in kW). Note that the jet fan limit only applies from 5 kW upwards, but in order to prove that a fan <5kW is a jet fan it should achieve a jet-fan impeller efficiency of 35%, or otherwise it will be classified as an axial fan that needs to comply with axial fan minimum requirements as appropriate.	EVIA is concerned that only jet fans using axial impeller are being considered. There are some versions of jet fans that use centrifugal impellers instead of axial impellers. What would happen if those jet fans do not achieve at least a jet fan impeller efficiency of 35 %? Would they be classified as axial fans? Alternatively, what if a centrifugal fan does achieve >35 % jet fan efficiency, but is less than the centrifugal fan efficiency? Is this a potential loophole?
Annex II.3 – Information requirements on partial load or at specified duty (1) For all fans, except custom fans:	EVIA notes that single speed fans that are not intended to be fitted with a variable speed drive (VSD) have been overlooked. This section should be revised as follows: (1) For all fans, except **single speed fans and** custom fans: In addition, EVIA suggests adding text for single speed fans that are not intended to be used with a VSD, for example: **(*) For single speed fans not intended to be used with a VSD: 18 months after entry into force, the full performance characteristics at the inherent speed shall be provided. A sufficient number of test points shall be selected to properly describe the characteristic. The values of volume flow, pressure, energy consumption, and efficiency shall be provided for the individual test points.** **This information shall be available on:**

	(a) the technical data sheet or user manual supplied with the fan, unless an internet link or a QR code to that information is supplied with the product, and **(b) the technical documentation for the purposes of conformity assessment pursuant to Article 4, and**
Annex II.5 - Ecodesign requirements for fans that are not incomplete fans – Resource efficiency requirements Three years after entry into force, fans shall meet the following requirements: 1. Availability of spare parts: (1) Manufacturers, importers or authorised representatives of fans other than safety critical fans shall make available to independent repair service providers at least the following spare parts if part of the fan: a) motors; b) impellers; c) stator elements (casing/housing/inlet ring); d) mechanical drive components; e) variable speed drives; f) sensors; and g) wearing parts (sacrificial elements);	EVIA requests that additional text is added as showed below. As explained at the Consultation Forum, some parts are fully integrated. For example, a die cast impeller cast with the rotor of the motor, or VSD fully integrated into the electric drive of a PM motor. (1) Manufacturers, importers or authorised representatives of fans other than safety critical fans shall make available to independent repair service providers at least the following spare parts if part of the fan **or combinations of as declared by the manufacturer**:

About EVIA

The European Ventilation Industry Association (EVIA) was established in Brussels in July 2010. EVIA's mission is to represent the views and interests of the ventilation industry and serve as a platform between all the relevant European stakeholders involved in the ventilation sector, such as decision-makers at the EU level as well as our partners in EU Member States.

Our membership is composed of more than 40 member companies and 6 national associations across Europe realising an annual turnover of over 7 Billion Euros and employing more than 45,000 people in Europe.

EVIA aims to promote highly energy efficient ventilation applications across Europe, with high consideration for health and comfort aspects. Fresh and good indoor air quality is a critical element of comfort and contributes to keeping people healthy in buildings.

For more information, see www.evia.eu.