



Position on the draft EC Working Document on possible Ecodesign requirements on standard air compressors

November 2014

Following the 24th October 2014 Consultation Forum, we would like to welcome the European Commission's intention to regulate standard air compressors, as well as the decision to launch a preparatory study on other types of compressors. The draft measure on standard compressors would lead to savings in the range of 0.46 - 1.51TWh/year by 2030. These savings are non-negligible and we fully support the intention of the Commission to regulate for the reasons detailed in our June 2014 position paper on compressors¹.

However, we strongly believe that further savings could be reaped if the Commission's proposal were strengthened, taking into account the following points.

Scope

Products in explosive atmospheres

Products operating in potentially explosive atmospheres are outside of the scope's proposal. In our comments to the preparatory study, we had asked the consultants to assess the energy savings related to this part of the product group and we still think that it is an information the Commission needs to have before making any final decision.

The preparatory study justified the exclusion this way: "*safety requirements are considered of higher importance than efficiency*". However, neither Lot 30 preparatory study, nor Lot 31 study demonstrated that motors or compressors designed to operate in potentially explosive atmosphere could not achieve the efficiency standards. We therefore call upon the European Commission to reconsider this exclusion.

→ Include ATEX products in the scope of the regulatory proposal, or have them at the very least covered by information requirements

Products designed to function in upper temperatures

As Germany, we think that the temperature limit of 40°C should be raised to 50-55° to avoid a potential loophole.

→ Adapt the temperature limits to avoid potential loopholes

Level of ambition

As stated in Annex II of the 2009/125 Ecodesign directive, "*the level of energy efficiency or consumption must be set aiming at the life cycle cost minimum to end-users for representative*

¹ <http://www.coolproducts.eu/resources/documents/ENGOS-position-on-Compressors---June-2014.pdf>

product models, taking into account the consequences on other environmental aspects.” However, the current proposal is far below.

More than double of the current savings would be achieved (**2.3 - 3.3 TWh/yr in 2030**) if d-values according to the LLCC would be established, as shown in scenario IV (d=5 in the first tier and d=15 in the second tier). If piston compressors are the reason for not setting ambitious requirements on the whole product group, we propose to have differentiated d-values for this part of the product group, considering that piston compressors only account for 3% of the total energy consumption in 2030.

➔ Fragment the regulation to reach higher overall ambition with:

- **First tier at d= 5 and second tier at d= 15 for fixed and variable speed compressors**
- **First tier at d= -5 and second tier at d=0 for piston compressors**

Information requirements

On excluded products

We call upon the Commission to set information requirements not only on standard air compressors but also on other types of compressors, as has been proposed in the recently published Draft Working Document on Electric motors. This will provide much needed information on the performance of other types of compressors, which can facilitate market monitoring, provide more accessible data on these products, preparing the ground for a possible future regulation in this area.

➔ Set information requirements on the whole product group

QR code

Moreover, we think that the proposal can be strengthened by including on the rating plate a QR code (on the basis of ISO/IEC 18004:2006) that could be scanned and would link directly to the website and the respective information.

➔ Include a QR code on the rating plate linking to the respective information on the manufacturers' website

Permanent magnets

We invite the European Commission to take a further look at the specific case of Rare Earth material used in Permanent Magnet motors. Permanent Magnet motors can contain rare earth elements which have been identified as critical materials in the medium-term based on supply risk, demand growth and recycling restrictions². Devices with rare earth magnets are quite hard to identify as such without having very specific technical know-how or without conducting quite intensive testing/dismantling of devices³. Thus, a mandatory and standardised marking of products containing rare earth magnets above a certain minimum weight can significantly facilitate future recycling practices. We believe that a marking giving information on the presence of rare earth magnets as well as information on the applied type (e.g. SmCo, FeNdB) can positively influence the establishment of a European circular economy for rare earth elements.

² Aalborg University, Addressing resource efficiency through the Ecodesign Directive, March 2014 (p. 225)

³ Source: Preparatory Study to establish the Ecodesign Working Plan 2015- 2017 implementing Directive 2009/125/EC, Task 2: Supplementary Report “Identification of resource-relevant product groups and horizontal issues”, Andreas Manhart, Kathrin Graulich (Oeko-Institut), 15th September 2014 (Chapter 7.1)

→ Introduce an information requirement on the presence of rare earth material in magnets, their localisation, as well as their extraction process allowing safe and cost-effective recycling.

→ Consider specific requirements for how these permanent magnets motors can be integrated in the compressor to maximise cost effectiveness of reuse and recovery process (e.g no glue and no welding hampering the extraction/recovery of rare earths elements; or maximum amount of non-destructive disassembly time to foster the reuse of the magnets rather than the mere recovery of rare earths)

Revision

The regulatory proposal should foresee a revision to include other types of compressors taking place as soon as possible, in line with the outcome of the new preparatory study expected to be launched on other compressors (eg. after Tier 2).

→ Revise the regulation in 3 years to investigate possible inclusion of other types of compressors

Other issues

Call for a mandate to allow the comparison of the performance of different compressors

The absence of an agreed method for a comparative assessment of standard air compressors with low pressure and oil-free compressors should be dealt with. We call upon the EC to issue a mandate to European standardisation organisations to develop the missing measurement methodologies which would allow the comparison of all types of compressors, in order not to further delay the work on this product group.

→ Anticipate the need to compare the different types of compressors in the years to come by issuing a mandate to the European Standardisation Organisations.

System Frequency Control

As European energy networks incorporate ever higher shares of renewable energy sources (RES), lower predictability of generation necessitates greater demand-side flexibility to cope with increased volatility, which is expensive to manage with traditional means. Smart Grids have been identified as the key tool in easing the transition towards RES, as they can contribute to equalising the load flow while improving European electricity grid stability. Compressors are appliances in which the load can be interrupted without negatively affecting the user experience, at the times when compressors do not need to deliver a static pressure. Therefore, we believe that compressors are one of many appliances under the Ecodesign Directive that could have a role to play in promoting the use of this cost-effective solution beneficial to all market participants, provided requirements are appropriately set.

→ Assess the feasibility of setting Ecodesign requirements for the inclusion of System Frequency Controls on Compressors. If this is not possible at this stage, reference could be made in the recitals or the revision clause.