Position paper ENER lot 11

Spare parts provision shall be removed as it leads to costs, including for the environment, which significantly outweigh the benefits

Non-compliant spare part fans will not keep on running forever, they will be phased out naturally when the end of life of the products they are integrated in is reached. This general process needs to be maintained.

Recently, Oko-institute performed a study for DG environment on the spare parts provision in the RoHS directive (2011/65/EU)[1]. This study concluded that '**the impacts of enforcing these legal requirements may result in costs which significantly outweigh the benefits of its implementation. Such costs include costs for the environment, where products reach the end of their service life early, as well as costs for enterprises, where the value of products is affected in light of the limitations to circulation and reparability.**' Most of the product which integrate fans are in scope of the RoHS directive, therefore the conclusions of this study also hold for the replacement fans provision in the fan measure. This is funded with additional argumentation in the following paragraphs.

Products in the HVAC sector for example have a life time of more than 10 years. With the current provisions on replacement fans, it will not be possible to replace fans integrated by exactly the same fan if these fans are placed on the market after 1/1/2015.

The requirements are as such that, in most cases, there are no compliant drop in replacements for fans integrated in products. Many factors need to be considered such as, safety of the product (EMC requirements), design of the product, size changes, control of the motor, etc….For example, a change from AC to DC already ensures that the compliant replacement fan cannot be used in existing products.

This leaves us with 2options:

Option 1: there is no replacement, so the whole product should be removed and replaced with a new one.

There will be no availability of spare parts, with the result that products will be scrapped well before end of service life. Manufacturers will not be able to guarantee quality or customer satisfaction, while there are no benefits for the environment (cfr study Oko-institute).

Option 2: provide necessary stock of replacement fans.

The only option left, to ensure quality and customer satisfaction, is for manufacturers to estimate the number of spare parts they have to buy-in and stock these fans to comply with the requirement. Such an estimation is a very difficult task so soon after the first placing on the market. This option forces manufacturers into additional investment, storage capacity, and finally a lot of waste when

1

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the spare parts are not all used, while there will be no gain in energy efficiency. Nevertheless, this never happens so early after first placing on the market of the model.

In both cases, the effects on the environment are negative (early end of life and waste of materials) as it increases waste generation, instead of reducing as is the aim of the 7th environment action plan aims. This seems to be in violation with the framework directive which states 'This Directive and the implementing measures adopted pursuant thereto shall be without prejudice to Community waste management legislation'. In any case, it is clear that resources (money, material, surface area) could be spent in a more cost-efficient, resource-efficient and environmentally friendly way.

Incomplete assemblies shall be excluded from fan regulation

A complete fan exists out of a fan, a housing and a motor, without those 3 parts, a the fan efficiency cannot be determined. According to the definition of a fan in the regulation EU No 327/2011, a fan can be equipped with a motor or not, as the impeller on itself is not capable to maintain a continuous gas-flow , an impeller is a part of the fan and not a fan and thus should be outside the scope of the regulation.

According to the definition of a fan, a fan without a motor is included in the scope of the regulation, we believe that this should be reconsidered. The default value for the motor will never reflect the efficiency value of the motor it is intended to work with. This is not the current practice and is far from reality. In doing so, it bans impellers from the market, which in reality would reach the minimum requirements. This forces product manufacturers to buy motor and impeller as a package.

Regulating incomplete assemblies complicates the regulation, without any clear gains to the environment. Indeed, once the fan is put into service, the complete fan has to comply with the regulation, so there are no loopholes. This is again a case of cascading, but then under the same regulation. Cascading overcomplicates legislations and should be avoided.

Cascading shall be avoided, as it does not make sense from an economical and environmental point of view.

When the first fan measure came into force, ecodesign measures for products that integrated a fan were few. Since then, however, the number of ecodesign measures have been expanding rapidly, now covering most of the energy using products. Because cascading does not make sense, as will be explained below, we would like to ask the commission not to include the products that are already covered by energy efficiency requirements under ecodesign. When these products were already covered by the current fan measure the requirements should not be further increased.

Herewith a list of the HVAC-R products that are already covered by an ecodesign measure and have to comply to minimum energy efficiency requirements:

1. EU No 206/2012: air conditioners < 12 kW
2. EU No 813/2013: boilers (fossil fuel boilers, heat pumps (air-, water-, and ground-source to water) < 400 kW
3. EU No 814/2013: water heaters (fossil fuel boilers, heat pumps (air-, water-, and ground-source to water) < 400 kW
4. EU No XXX/XXXX (being scrutinised in the parliament): ventilation units

5. EU No XXX/XXXX (being scrutinised in the parliament): professional refrigeration products (condensing units and chillers for process cooling)
6. EU No XXX/XXXX (awaiting ISC): air heating products, cooling products and high temperature process chillers

In reality more efficient fans will not lead to energy savings on product level and this for economic reasons.

In general products with a lower energy efficiency will typically be less expensive and affordable to a more general public, while products with a higher energy efficiency will typically be more expensive and only affordable to some consumers. When minimum energy efficiency requirements are set, the difference between the highest and the lowest energy efficiency on the market will be smaller. Nevertheless, the general tendency, will not change. In order to keep products affordable for less established consumers, the lowest efficiencies on the market will just pass the minimum energy keeping the price increase as low as possible. In order to also satisfy the more well established, environmentally conscience consumers, there will be an availability of higher efficiencies with a higher price on the market as well.

The ecodesign requirements for fans, imposes manufactures to integrate a more efficient but also more expensive fan in their products, regardless of whether this is the most cost-efficient solution or not.

An efficiency increase of the fan will not lead to energy efficiency levels higher than the minimum energy efficiency requirement on the product level. The reason for this is that manufacturers want to keep the products with the lowest energy efficiency as cheap as possible, while just reaching the minimum requirement on the product level. A price increase of the fan will be compensated by a price decrease of another component, making sure the minimum requirements are met without a price increase or with minimal price increase. If the fan is not the most cost-efficient part to replace to improve the energy efficiency, the product will in the end be more expensive, but not more efficient. See also the attached case study.

The report states that cascading allows setting requirements that are more specific, tuned towards the actual application of products. This is completely wrong as the fan measure does not consider the actual application in the product and never has. The actual application in a product is considered in the ecodesign study of the product.

In case the fan improvement is the most cost-efficient way to improve the fan, then this will anyway be included in the redesign, making the fan measure redundant for these products.

In case the fan improvement is not the most cost-efficient way, a fan measure would only lead to a cost increase without gains for the environment, see the explanation above.

In the report, section 1.1.1, p 8, it is stated that: ‘According to the blue guide the cascading of regulation is allowed.’ Nevertheless, the blue guide gives guidance on how to implement legislations, not on how to make legislations. Therefore when the blue guide states ‘Essential and other requirements laid down in Union harmonisation legislation may overlap or complement each other, depending on the hazards covered by these requirements that are related to the product in

question.', it simply refers to the fact that some legislations currently in force do overlap or complement.

The blue guide covers many types legislations such as hazard related regulations, environmental legislations, safety legislations, legislations, therefore it is logical that there are overlapping or complementing legislations covering the same product . If some of these legislation would not exist together and apply to the same product, some safety, environmental, hazard, etc. aspects of the product would not be covered.

In case of fan efficiencies and overlapping product efficiencies, the fan efficiencies are redundant, for reasons explained above. As it doesn't add anything to the reduction of energy consumption, it is also not complementary. Concerning redundant requirements the blue guide states the following: '*Certain Union harmonisation acts exclude from their scope products covered by other act or incorporate the essential requirements of other acts which avoids simultaneous application of redundant requirements.'* This means there are also examples of where these specific products are excluded from the scope.

In the Lisbon treaty it is written, under part 1, title II, article 7, that there should be consistency between policies. The fan measure does not lead to environmental benefits for products that are already covered by energy efficiency requirements, it only leads to additional costs for those manufacturers. This is inconsistent with the Lisbon treaty as it has a negative impact on the economy without any improvement to the quality of the environment.

According to some stakeholders, an unlevel playing field would be created when there is no double regulation, pushing manufacturers to produce their products outside the EU where they can buy cheaper non-compliant fans.

Nevertheless, according to the blue guide when a manufacturer orders a special design from a fan manufacturer, and processes it further to place it on the market as a new product under his own brand, then the first act between the fan manufacturer and the product manufacturer is not seen as placing on the market. Therefore, in case of order based products there is no difference between products manufactured outside of the EU and products manufactured inside the EU and as such no unlevel playing field.

As manufacturers indicated in the stakeholder survey, usually they already operate separate production lines for compliant products and non-compliant products. Most manufacturers already produce specially ordered fans, they also operate separate production lines for compliant and non-compliant fans (cfr report), therefore it will not be a huge burden to produce specially ordered fans for some manufacturers.

In the report, section 1.1.1, p 9 it is stated that many stakeholders 'do not want to open up the EU market to unregulated fans.' Nevertheless, when the products they are integrated in already have to comply with energy efficiency requirements, there would not be less energy savings in the EU as explained above.

The efficiency at best efficiency point not at working point

We are in favour of maintaining the declaration at the optimimum efficiency point. The working point is not a good alternative, as this is depending on the applications. If efficiency has to be

determined at the working point this also means that the requirements should be adapted to fit each application. Nevertheless, this is practically impossible as there are too much applications for which these requirements should be determined.