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APPLiA and Eurovent comments following the Consultation Forum on Airco and Comfort Fans of 9 September

1. Horizontal comments

1.1. Timing

Sufficient time to thoroughly modify product design, testing installations and standard is needed for a successful implementation of the future regulations, which is not possible by 2022, the proposed date in the working documents. For the above reasons, we believe that at least 2 years should be left between the publication of the legislative act and the entry into force of the requirements.

We strongly advise that the legislation does not include precise dates but the number of years between the publication and the entry into force of the legal obligations.

1.2. Requirements related to refrigerants

During the Consultation Forum (CF), some stakeholders asked to include requirements related to F-Gases, as the current regulation includes requirements related to the GWP of the refrigerant. The reason of including them in the existing regulation is that at the time of its writing F-Gas were not regulated. Today, the F-Gas legislation requires to use lower GWP refrigerants. Adding requirements related to refrigerants, such as ban on HFO or adding GWP value in the technical documentation, would be redundant and lead to a double regulation, which must be avoided.

The F-Gas Regulation N°517/2014¹ already set product bans and an EU phase-down of HFCs. We recommend not to mix energy efficiency regulations like ecodesign and energy label with F-Gas related regulations, each having different purposes and goals.

Proposal:

- Avoid including a reference to F-Gases and GWP in ecodesign and energy label legislation

¹ <https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32014R0517&from=EN>



1.3. Sound power level requirements

a) Sound power level

It was proposed that sound power level should be further reduced. We would like to recall that reducing sound power level is directly linked to energy efficiency:

- Reducing the sound power level by keeping the same energy efficiency and size of the unit will result in reduced capacity (the cost per kW is therefore increasing);
- Reducing the sound power level by keeping the same capacity and size of the unit will result in reduced energy efficiency;
- Reducing the sound power level by keeping the same capacity and energy efficiency will result in increased size (due to increase of heat exchanger surface and fan size), this will lead to reduced comfort level, reduced resource efficiency and increased price.

The conclusion of the preparatory study is that reducing further the sound power level will not make it possible to reach higher efficiency levels (Task 6, page 51). The requirements contained in the current regulation were decided considering the trade of between energy efficiency and sound power level, which should not be modified.

b) Sound power level classes

As presented during the Consultation Forum, the study on consumer understanding of the energy label confirms that consumers do not understand well the sound classes. The clearest option for consumer before explanation is the one where only the dBA value (alternative 3 in the study report) is indicated (page 20 and 21 of the consumer study). Therefore, we recommend following the findings of the study and maintain only the dBA values on the energy label.

Proposal:

- Maintain the same sound level requirements as set in the current regulation.
- Do not introduce sound power level classes on the energy label.

1.4. Low power modes

For split units, low power modes (LPM) are already included in the seasonal energy efficiency calculations (SEER & SCOP) which are subjected to requirements. Additional separate LPM requirements should be introduced only after an in-depth analysis of this product category. We recommend maintaining this approach that fully encompasses the energy consumption of low power modes. Setting maximum or caps values would mean a double obligation on low power modes, including standby. Double regulation should be avoided. This could also hamper the development of connected and energy-smart appliances.

Furthermore, the preparatory study considered improvements on LMP which are already reflected in the proposed minimum efficiency requirements and energy label classes.

For single ducts and double ducts, which are only used for short periods, the seasonal approach does not apply, therefore LPM can be relevant.

Proposal:

- Do not include separate LPM requirement in split units, maintain the current approach of including LPM requirements into SEER and SCOP calculations.
- Maintain the existing LPM requirements for single ducts and double ducts, adding the network standby requirements.



1.5. Verification tolerances

In the current draft EL regulation, there are no verification tolerances for the values declared in Table 14 and Table 16. Some participants of the CF argued that the tolerance should be zero. To our understanding, it would be technically incorrect and unjustified to apply zero tolerance. All declared parameters should be listed with a verification tolerance or the uncertainties of the harmonized standards.

Proposal:

- Define a verification tolerance for the parameters listed in table 14 and 16.

1.6. Resource efficiency requirements

The definition of “commonly available tools” should be clarified. APPLiA and Eurovent support the standardisation activity under the future WG23 Resource Efficiency to be established in CEN/CENELEC TC59X. This group should assess the “commonly available tools” concept and the development of a harmonised definition in alignment with discussions in CEN/CENELEC JTC10 on the proposed standard *prEN45554*.

In Annex VII, components such as mercury, asbestos and refrigerant are in. Such products have to be disassembled carefully with specific tools so that the person removing it is not injured and that it cannot be done by end consumer. In the current draft proposal, it is not specified that these products must be removed by professionals. We recommend clarifying it in annex II, 4.d.

In addition, it should be noted that air conditioners are subject to special treatments due to their complexity and cannot be compared to white goods: they contain a considerable amount of refrigerants and flammability has to be taken into consideration. Removing refrigerants poses risks to safety and environment, if not treated properly. Therefore, the extraction with a commonly available tools should not be allowed. However, we agree that these tools should not be only related to a specific brand of product.

Proposal:

- To consider the work of the TC59X WG23 Resource Efficiency when developing requirements on resource efficiency.

1.7. Spare parts availabilities

a) Refrigerant as a spare part

Some stakeholders proposed during the Consultation that refrigerants should be made available as spare parts by equipment manufacturers. It must be reminded that equipment manufacturers are not refrigerants manufacturers, the equipment manufacturers use refrigerants to fill pre-charged equipment and then place this equipment on the market. Installers are in charge of installing, servicing, maintaining, and refilling systems in case of repair, the refrigerant will come from the installers' own gas supplier. Therefore, we question the feasibility of such requirement, as it does not follow today's value chain practices and would require important logistical and safety arrangements from manufacturers to satisfy such obligation.

b) Spare parts delivery time

During the Consultation Forum, it was requested that the obligation to deliver spare parts within 15 days could be further clarified when it comes to its verification by market surveillances authorities. Even though this clarification might not be necessary into the legislation, this could be further considered into a future FAQ.



Indeed, delivery times are subject to unforeseen hazards that can be out of the control of manufacturers. Therefore, when verifying compliance with such requirement, it could be more appropriate to verify compliance based on a cumulated case basis over a certain period of time, such as 12 months, during which a predetermined failure rate is applied. In other words, a reasonable and acceptable tolerance of failure of delivering the spare parts within the requested 15 working days.

c) Period of spare parts availability

During the Consultation Forum, some stakeholders requested to extend the period of spare parts availability from 7 years to more, i.e. 12 years. APPLiA and Eurovent would recommend maintaining the 7 years initially proposed by the Commission for several reasons. It has to be reminded that even though air conditioners do have a longer product life cycle than other consumer goods, the energy efficiency of new air conditioners placed on the market over the years is increasing. Therefore, a balance should be found between repairing air conditioners at length to the detriment of energy efficiency and energy efficiency improvements of newer products. In addition, by increasing the availability of 5 extra years, will also increase the stocks to be kept by manufacturers. If not used, this will create additional waste.

2. Split appliances

2.1 Testing method

During the CF it was agreed that additional work is needed on testing methods for split air conditioners. We support the proposal of the Commission to set up a technical working group to further discuss this point. We would like to underline the importance of better considering the real use of products and factors like thermal comfort. Sufficient time should be provided for these discussions to analyse all the options on the table, including their feasibility.

The timeline must be duly considered specially for the improved test method recently proposed by some stakeholders: the so-called compensation or dynamic test method. If a new test method is introduced, it has to be noted that the official timing from CEN to publish a standard is at least 20 months. An additional 1,5 years has to be added for round robin tests, as requested by the conclusion of BAM's study, to evaluate, confirm and investigate the feasibility of implementing this test method.

Furthermore, this method will severely increase of testing time as each and every combination would require to be tested and manufacturers may also do require time to invest to set up the correct facilities. So far the proposed new testing method has been conducted in a calorimeter room only. Manufacturers do also use air enthalpy rooms to test their products, therefore it should be investigated whether such a method is feasible in air enthalpy rooms. This has not been confirmed yet.

Finally, we would like to stress the necessity for a balance between the representability of the testing method for real-life operation and its usability for accredited laboratories, MSAs and manufacturers.

Last but not least, if any new testing method is considered, the proposed new requirements may need to be re-assessed in light of it.

Proposal:

- Organise a technical working group on the measurement method



3. Single and double duct appliances

3.1 Separate labels

In the working documents the Commission proposed to combine double ducts (DD), single duct (SD) and split air conditioners in one energy label scale. The argument that SD and DD compete with split systems, as rationale for a single label, is not supported by objective data. These three types of appliances are very different and serve different purposes; their purchasing process is quite different, customer buying behaviour and purchase decision are different. Therefore, cannot be compared. DD and SD are almost only used in cooling mode and only during the hot season (June-August). Heating mode (heat pump if available) is limited to the few days in autumn or spring when the main heating system is not in use. Therefore, calculating their energy efficiency using a seasonal approach, as proposed in the working documents circulated for the Consultation Forum, is absolutely unjustified.

Combining DD, SD and split appliances in the same label scale will relegate DD and SD at the bottom of the scale, with no possibility for them to move up. This will give to consumers an unfair information because it might give the impression that SD and DD could improve class while this is not possible. In addition, consumer that will choose SD and DD for reasons other than efficiency (cost or installation constrains) will not have the possibility to make a fair comparison among the efficiency of products that could make them save energy and money. Last but not least, this scheme will not provide any incentive for manufacturers to compete to in reaching higher efficiencies.

Proposal:

Define separate energy label scales for split, double ducts and single duct.

3.2 Minimum requirements

The Commission proposed minimum efficiency requirements that phase out 99% of double ducts and single duct appliances. This is likely due to a mistake in the reference data used, including the BAT, but these values should be corrected. In particular, it has to be noted that for double ducts, it is not clear which reference product the Commission has taken into consideration to set the minimum requirements, during the CF it was recognized the minimum requirements have been based upon very limited data and no deep analysis.

Proposal:

- Minimum requirements for single/double duct fixed unit: EER: 2,6; COP 2,6
- Minimum requirements for single/double duct portable unit EER: 2,7; COP 2,2

4. Comfort fans

4.1 Lack of market analysis

In the study there is lack of data for setting ecodesign and energy label requirements for comfort fans. The fact that data is missing does not justify the Commission to set requirements based on data taken from other markets. In particular, using data from other markets, the Commission will not be able to make a proper impact assessment for the European market.

During the CF was noted that data related to comfort fans placed in the European market should be available since the current Ecodesign Regulation includes mandatory information requirements.

APPLiA and Eurovent comments after CF on air conditioners and comfort fans



On the energy label, the proposed classification would promote large fans or ceiling fans and lead the consumer to prefer these products rather than small portable fans. This could increase the total energy consumption due to the unintended consequence of a drive for "more efficient looking" larger or ceiling fans. Fixed and portable comfort fans are totally different appliances and should neither be compared nor combined in a common scale.

Settings such as timer functions or presence sensors that can potentially save energy have not been taken into account neither for the label nor in ecodesign; furthermore, the assumption that a maximum flow rate mode would always be used is incorrect as rarely the maximum speed is used for the whole duration of the fan operation.

Before setting requirements, extremely important would be to standardize the test for determining the flow rate, as for many, if not for most of the ceiling fans on the market, flow rates are not measured using the existing international standards.

In addition, the draft regulations do not consider "Tower" fans, which in recent years have gained an important part of the market due to their small footprint and very high performance.

Proposal:

- Base any requirements on available.

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