

## EHPA written comments on the suggested resource requirements for air-conditioners

**Introductory note:** EHPA would like to thank the consultancy Viegand Maagøe for the opportunity given to comment on the suggested resource requirements part of the impact assessment for air-conditioners. Please find below EHPA's comments on the suggested resource requirements.

### 1. A requirement of pump-down functions to avoid refrigerant leakage during decommission (and repair)

EHPA would like to have further clarification on this requirement. We understand it as being an integrated pump-down function for the purpose of this question. Refrigerant pump-down by a certified technician is already a requirement for all HVAC systems. EHPA would like to highlight that the integrated pump-down function is usually a system option considered in some commercial air-conditioners due to the large amount of refrigerant. We are wondering whether any study has been carried out on the benefits of by-default integration of such system for smaller units, below 12kW.

It is not clear whether it includes also pump-down for repair or is limited only to pump-down for decommissioning. In case of repair the repair work is done typically on the outdoor side: change of valves, compressor replacement etc. In such case outdoor pump-down for repair has no meaning.

It is important to note an integrated pump-down does not guarantee the full removal of the refrigerant from the system components and piping while the manual pump down by a technician will ensure that. There is no proof today that having an integrated pump down will result in lower risks of leakage at the end of life as the refrigerant will be stored in the outdoor unit which will still be exposed to environmental risk or not be correctly entered into the end of life process increasing the chances of refrigerant leak while an external pump down performed by the technician will ensure recovery of the refrigerant and its correct handling, thus avoiding any possibility of further leakage. Overall, this could lead to a sense of false security and reduce awareness of the urgency to recover the refrigerant from the equipment before it is being disposed of.

In all case, even with an integrated pump-down function, the manual intervention with an external vacuum pump from a certified installer is still necessary to ensure removal of the refrigerant and its treatment. Indeed, an integrated pump-down function does not work at all the time especially if the units is damaged or there is no electricity anymore on site.

In addition, in case of multi-splits or single-split installations with long pipping, the outdoor unit may not have sufficient volume to contain the whole refrigerant amount of the system. This shows another limit of such requirement.

The enhancement and enforcement of the safe removal of refrigerants at end-of-life requirement is already taking placed under the review of the F-gas regulation. The F-gas regulation, as well as the WEEE directive, and several treatment standards are indeed covering the safe removal of refrigerants. This is widely documented: there are a number of manuals and documentations that offer guidance for installers how to pump-down refrigerants manually. The information is already available.

Therefore, EHPA does not recommend for the introduction of a mandatory pump-down system under the Ecodesign legislation. In all cases, a trained and certified installer is required at end of life to ensure proper decommissioning and handling of the equipment.

## **2. A requirement of information on the safe removal of key electric and electronic components (as per Article 8(2) of the "WEEE" Directive1).**

Building on the Directive Annex 7, the key components for air conditioners are considered to be: Printed circuit boards (larger than 10 cm<sup>2</sup>); Electrolyte capacitors containing substances of concern (height > 25 mm, diameter > 25 mm or proportionately similar volume); Liquid crystal displays (larger than 100 cm<sup>2</sup>); Batteries; Heat pumps.

EHPA has no further comments. It was clarified by the consultant that by "Heat pumps" is meant the removal of refrigerant fluids as specified in WEEE directive (2012/19/EU) Annex VII, 2.

## **3. A requirement of the availability of spare parts.**

Manufacturers, importers or authorised representatives of air-to-air air conditioners and air-to-air heat pumps shall make available to professional repairers at least the following spare parts: compressors; heat exchangers; remote control; thermostats and sensors; printed circuit boards; and fan motors;

EHPA confirms that the suggested list of available spare parts is sufficient and complete.

It is important to remind that such components should not be made available to end users due to safety concerns, only trained and certified installers are legally allowed to intervene on split air-conditioners.

## **4. A requirement ensuring that the availability of the suggested spare parts are ten years**

EHPA would recommend maintaining the 7 years initially proposed by the European Commission in the 2019 drafts for several reasons:

It has to be reminded that even though air-conditioners do have a long product life cycle compared to other 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 the air-conditioners to the detriment of energy efficiency and energy efficiency improvements of newer products.

In addition, increasing the availability of spare parts for 3 more years up to 10 years in total, will also increase the stock area to be kept by manufacturers. Many of those spare part stocks will ultimately not be used, this will create a large amount of additional waste. Also, it is important to remind the particularity of the HVAC market, models can stay for several years on the market (sometimes up to 8 years), in this case requiring a longer retainment period will largely increase inventory.

Finally, for other product groups (e.g., commercial refrigeration and fridges adopted in the 2019 Winter Package), the requirement of availability for spare parts has been set to 7-8 years. In this line of thoughts, we wonder why additional years would be requested for air-conditioners.

## **5. A requirement ensuring spare parts are delivered within ten working days**

EHPA strongly recommends maintaining the 15 working days initially proposed by the European Commission. Initially in the 2019 drafts for Lot 10, it was proposed 15 working days like for all other lots adopted so far. We do not understand the reason behind this reduction from 15 to 10 days. As explained in our position paper from 2019, a period of 15 working days can be already challenging in some cases, as sometimes supply might be tensed due to the seasonality of the business. Under such circumstances, the manufacturer should be able to have more days to provide an adequate solution/remedy to the customer.

We understood from the consultant that this shorter period of time has been proposed due to some considerations that consumers might be tempted to change their equipment instead of repairing it. It is important to remind that consumers decision for repair or not does not only rely on one parameter (the time to deliver a spare part) but various parameters playing an important role depending on the consumers: price of the spare part, hourly rate of the servicing, taxes, more efficient products available etc).

As already flagged during the first consultation forum, we have concerns on potential non-compliance being found

in case 'once' spare parts do not arrive within the 15 working days due to extraordinary consequences or post/shipping services failure or failure not due to manufacturer's behaviour. Additionally, the requirement could be further clarified when it comes to its verification by market surveillance authorities. It is not clear how they will verify compliance with such requirement. Even though these clarifications might not be necessary into the legislative text, it should be further clarified by the Commission in the FAQ afterwards.

Finally, when considering such requirement, the European Commission should take into account that it will increase the product costs and waste. Additionally, manufacturers will have to create more stock locations to be more flexible and be able to react fast, as Europe covers a very large geographical area (from well-connected locations to remoted ones). It should be kept in mind that many areas are difficult of access e.g., many islands across the EU or remote Nordic regions.

For all these reasons, we strongly advise to maintain a 15 working days delivery period and to contact logistics consultants and experts, who have knowledge on existing logistics models and are able to provide detailed overview on the complexity on the logistic planning for spare parts and what are the levels of existing key performance indicators commonly used in the industry.

## **6. A requirement providing access to Repair and Maintenance Information by professional repairers (including independent repairers), with the possibility of proportional fees.**

EHPA would like to remind that air-conditioners require technical training and installers/repairers need to have a F-Gas certification (mandatory) to be able to intervene on an AC, especially due to the flammability of A2L, A2 and A3 refrigerants. Manufacturers should have the right to dismiss the request in case there are some strong doubts on the training and qualifications of the repairers requesting information on repair and maintenance. The manufacturers should have the right to ask complementary information on repairers qualifications beforehand.

## **7. Overall, we would like to receive the industries general thoughts on these requirements and, in particular:**

- Whether we miss any important components on the list of spare parts? And do the list reflects the components which are most likely to break?
- Whether the availability period of ten years are appropriate?
- Whether the time of delivery can be reduced?
- Whether other resource requirements can be suggested, e.g. requirements of modular electronics for easier repair or "smart" control accounting for the share of renewable energy in the grid.

EHPA would like to understand what is meant by or considered as modular electronics under LOT 10. Certain points still need to be clarified before we are able to provide an informed feedback: Is this modularity on switchbox, i.e., assembly of all printed circuit boards or is it the PCB itself or something else? What is the estimated benefit of such proposal? This proposal could actually be counterproductive and generate more waste, as the whole module would need to be replaced regardless of the seriousness of the malfunction. Therefore, such approach would require also a well-developed and functioning recycling system for the generated electronics waste to be handled. In addition, the overall topic of "modular design" is probably more appropriate for other types of ErP products than our sector.

Smart accounting as such is too premature to our understanding. Not all EU countries are already prepared for this feature and furthermore, it could impact the energy efficiency declaration, function that cannot always be used thus not matching the 'real efficiency' of the product. In addition, such "smart" controls are already considered under lot 33, thus we caution against potential risks of double regulation.

## ABOUT EHPA

The European Heat Pump Association (EHPA) is a Brussels based industry association which aims at promoting awareness and proper deployment of heat pump technology in the European marketplace for residential, commercial and industrial applications.

EHPA provides technical and economic input to European, national and local authorities in legislative, regulatory and energy efficiency matters. All activities are aimed at overcoming market barriers and dissemination of information in order to speed up market development of heat pumps for heating, cooling and hot water production.

EHPA coordinates quality initiatives: including the HP KEYMARK, a Quality label for heat pumps and Certification standards for heat pump installers. The association compiles the annual heat pump statistics and organizes a number of events, among them an annual heat pump conference.