

Answers to questionnaire on material efficiency under ENER Lot 10 30 July 2021

EPEE, the European Partnership for Energy and Environment representing the heating, cooling, and refrigeration industries, welcomes the opportunity to provide comments on the proposed material efficiency requirements ENER Lot 10. Our answers to the consultant's question on our views to the proposals are listed in the table below.

Measure 1

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

Integrated pump-down functions use a built-in compressor to remove refrigerant from the external piping and the indoor units (IU) and store it in the outdoor unit (OU) (in a receiver tank). At the end of the process, in all cases, the manual closing of the mechanical valves at the OU is necessary. As the repair work is typically executed on the outside of the product (change of valves, compressor replacement, etc.), the outdoor pump-down for repair has not meaning.

Not for all systems/installations (e.g., multi-split systems with several indoor units or single-splits with very long piping requiring additional refrigerants) it is possible to collect all the refrigerant from the piping and the indoor units, as piping can be long and the receiver tank size is usually limited. Integrated pump-down can therefore only be useful for certain and a limited number of cases.

Removing the refrigerant from OUs requires the use of special external vacuum pumps. The separation of refrigerant dissolved in compressor oil is not possible with simple pump-down functions, which is why they are not suitable for this task. Integrated pump-down functions for decommissioning ideally assume that the refrigerant is removed from the outdoor unit at a specialised recycling plant. But that means that the refrigerant stays inside the decommissioned outdoor unit from the time of decommissioning to the time of recycling. Leaking manual valves, wrong intervention from operators, wrong transportation and warehousing, and other unforeseen incidents will increase the probability of the refrigerant leaking into the atmosphere and missing the initial target of the consultant's proposal.

We strongly recommend that the treatment of refrigerants must be based on the F-Gas Regulation and the relevant standards EN 378 and EN 60335-2-40. All tools and methods to minimise refrigerant leakages are already defined.

In addition, we would like to remind that in all cases and at EoL a trained and certified installer is required to manually intervene on the system.

As noted above, a mandatory pump-down requirement, as proposed by the consultant, serves no additional purpose to existing legislation and practices, and should therefore not be included.

Measure 2

Heat pumps. The intent was to provide information on the safe removal of key electric and electronic components equipment to support Article 8(2) of the "WEEE" Directive. Instead of heat pumps, the wording should have been the safe removal of refrigerants in heat pumps/air conditioners.

The consultants clarified that the term 'heat pumps' means the removal of refrigerant fluids as specified in Annex VII.2 of WEEE Directive 2012/19/EU.

Measure 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 a list of spare parts.

We think that the spare parts list presented is complete for professional repairers. Concerning remote controls, it is important to flag that two types exist: wired controls and wireless controls.

We propose to add that "replaceable air filters and wireless remote controls could be made available to end-users".

Measure 4

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

In the 2019 draft, a spare parts availability of 7 years was proposed. We think that seven years is a reasonable and sufficient period for spare parts availability. Especially after the consultants' specification that the period starts with the last placing on the market of models containing specified parts.

Spare parts are usually manufactured at the actual product production date. Extraordinary production leads to cost increases that are due to additional storage, logistics, and manufacturing requirements. Storing parts for 10 years or more also increases the risk of producing far too many parts, which then have to be wasted, because they remain unused. This situation would contradict the targets of material efficiency.

In addition, a longer spare part availability period may not lead to higher rates of repair. Indeed, repair decisions by consumers depend on many parameters (economic decisions, availability of new products on the market with better performance and features, etc.).

Measure 5

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

We strongly ask the Commission and consultants to maintain the 15 days as a period initially proposed in 2019, and not to reduce this timeframe to 10 working days. Please note that a delivery time of 15 days can already be challenging in some cases, as sometimes the supply might be tensed due to the seasonality of the business. In that context, EPEE asks the Commission to specify which compliance conditions are expected from suppliers (e.g., deliveries over periods to be checked and not one-time deliveries).

Finally, when considering such requirement, the Commission should take into account that it will increase the product costs and waste products. Additionally, manufacturers will have to create more stock locations to be more flexible and able to react fast. It should be kept in mind that many areas are difficult to access, such as many islands across the EU or remote regions.

For all these reasons, we strongly advise the Commission to contact logistics consultants who have experience and models and can neutrally assess key performance indicators on logistics and spare parts supply chains.

Measure 6

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

This is considered acceptable practice.

Air conditioners require technical training and installers / repairers need to have a F-Gas certification (mandatory) to be able to intervene on an AC unit, especially due to the flammability of certain refrigerants. The manufacturer should have the right to dismiss the request in case he has some doubts on the training and qualifications of the repairers requesting those information. In addition, the manufacturers should have the right to ask complementary information on repairers qualifications beforehand.

Measure 11

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.

EPEE states that with modular electronics, the impact under the EMC Directive and other requirements must also be considered. It was also clarified that with regard to the proposal to include smart functions, it is difficult to include something that is not certain to be applied in the daily function of the device. This could lead to declarations differing from the actual use of the product.

Some points still need to be clarified before we can provide further substantive feedback. For example, what is meant with modularity? Does this mean modularity on the switchbox (assembly of all printed circuit boards) or is it the PCB itself? Such modular approach could actually create more waste, as the whole module would need to be replaced, regardless of the seriousness of the malfunction. This requires a well-developed

and functioning recycling system for the generated electronic waste to be handled.

On modular electronics: most parts in air conditioners are customised to the unit in order to ensure the best possible efficiency, so this requirement is not suitable for this product group. In addition, as already explained above, air conditioners do contain a circuit charged with a pressurised refrigerant (i.e., the refrigerant circuit), and sometimes contain flammable refrigerants. Therefore, we do not consider modular design an appropriate approach for this product group.

On 'smart' controls, EPEE would like to state that it is too early to implement smart accounting as such in our understanding, as not all EU Member States are prepared for this feature. It could also impact the energy efficiency declaration, thus not matching the 'real' efficiency of the product. In addition, such smart controls are already considered under ENER Lot 33, which means that there is a risk of double regulation.

ABOUT EPEE:

The European Partnership for Energy and the Environment (EPEE) represents the refrigeration, air-conditioning and heat pump industry in Europe. Founded in the year 2000, EPEE's membership is composed of 40 member companies, national and international associations.

EPEE member companies realize a turnover of over 30 billion Euros, employ more than 200,000 people in Europe and also create indirect employment through a vast network of small and medium-sized enterprises such as contractors who install, service and maintain equipment.

EPEE member companies have manufacturing sites and research and development facilities across the EU, which innovate for the global market.

As an expert association, EPEE is supporting safe, environmentally and economically viable technologies with the objective of promoting a better understanding of the sector in the EU and contributing to the development of effective European policies. Please see our website (www.epeeglobal.org) for further information.



THE VOICE OF THE REFRIGERATION, AIR-CONDITIONING AND HEAT-PUMP INDUSTRY IN EUROPE

EPEE – European Partnership for Energy and the Environment

Avenue des Arts, 46 · 1000 Brussels

Tel : +32 (0) 2 732 70 40

Fax : +32 (0) 2 732 71 76

Email: secretariat@epeeglobal.org

Website: www.epeeglobal.org

Follow us on Twitter @EPEESecretariat

