

EHPA specific comments to the Review Study on space and combination heaters (Lot 1) – Draft Task 6, Chapter 4 on Packages



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Introductory statement: All heat pumps complying with the relevant requirements of the Ecodesign Regulation (e.g. etas, Tdiv, TOL...) and delivered by the manufacturer as a finished product including heat generator, control and backup heater (electric or burner) should be considered as a heat pump and should not fall into the package category.

VHK is suggesting to introduce the packages in the eco-design regulation and is proposing several methodologies for assessing the performance of the package. The methodologies are based on the bin approach, some consisting of testing the package as a black box, some consisting of testing the products individually within the package. VHK is also introducing a new definition about single products, that didn't exist in the regulation up to now and that does not fit with some products that are put on the market, such as heat pumps with a fossil backup.

General comments

Before entering into the details of the proposed test methods and calculations, general issues shall be raised:

- The proposed methods only concern space heating energy efficiency. Test methods would also be needed to assess the domestic hot water energy efficiency of packages encompassing a combination heater, the sound power level for packages encompassing a heat pump and NO_x emission for packages encompassing a fuel burning engine. Indeed, performance thresholds of the packages for space heating, NO_x emissions and sound power level should also be defined.
- The product fiche is defined in both eco-design and labelling regulations; there would be a need to define a package fiche. In particular, when the package is tested as a black box, the product fiche will not be appropriate.
- In case of packages, would that mean that three tests are necessary instead of one? Should single products be tested and compliant to ecodesign? This is all far more complicated and costly than the current testing procedure.
- In case the separate method is chosen to establish the performance of the package, will the limitations in terms of T_{div} and TOL still be relevant for the heat pump included in the package?
- EPREL: Both products and packages shall be entered in the EPREL. In case the performance of the package is determined according to the combined method, how shall the package be declared in the EPREL database?

- Will the possibility remain for installers to make their own package label, in particular for solar? And how? Will the installers be required to only install "on-site made" packages that fulfil the eco-design requirement on energy efficiency? How to verify? The risk is to have no package but only compliant products put on the market and non-compliant "on-site made" packages installed (risk of no good performance achieved).
- Will heat pumps equipped with a back-up heater be considered as a package of a heat pump + electrical boiler?

Testing methods and standards for packages

As the proposed testing methods are not yet included in any standards:

- There is a high risk for high deviation between results obtained in different laboratories
- It will not be always possible for a laboratory to get accredited for these methods, which could be a burden for third party conformity assessment
- The testing of the package as a black box may require specific test facilities and will limit the possible use of independent laboratories for 3rd party conformity assessment
- The individual testing of the products within the package may require specific test facilities or to test the different products in different labs. This will also limit the 3rd party conformity assessment.

Since the development of HP with fossil backup, the CEN standardization groups have already worked to introduce hybrids in the standard EN14825 for heating and in EN13203-5 for DHW. EHPA regrets and does not understand why the following work is not considered by the consultant. It is also important that CEN standardization groups that are working on testing methods for packages, such as HP+boiler (hybrid), clearly and as soon as possible identify the playing field for the revised regulation to avoid unnecessary development of testing methods.

Conclusion

It was not clearly mentioned in the VHK reports that it was intended to introduce the package within the eco-design regulation and thus no chance has been given to the stakeholders to react on that issue before the stakeholder meeting. Technical discussions are highly needed as these proposed changes will have huge consequences on many existing products. For EHPA it is of utmost importance that the heat pumps definition remains unchanged, meaning that heat pumps equipped with a backup heater, either electrical or fossil fuel, will be considered as a heat pump appliance.

Time is also needed to investigate more thoroughly the proposed methods. Certain coefficients are introduced which need to be explained. A technical meeting would be welcome in order to clarify the points highlighted in this document and to discuss the proposed testing methods. Indeed, manufacturers call for the performance of the hybrid products put on the market to be considered as it is tested and not evaluated in a package.

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 market place 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.