

Heat pumps in the EPBD – EHPA recommendations for the trialogues

Heat pumps are vital for reducing greenhouse-gas emissions, improving energy efficiency, EU energy security and increasing the renewable share of energy consumed in buildings. They are three to five times more energy efficient than natural gas boilers, so they truly represent the energy efficiency first principle. Unlocking heat pump deployment at large scale is therefore an essential part of an ambitious energy performance of buildings directive (EPBD). Besides improving air quality and helping reaching 2050 climate objectives, rolling out heat pumps at large scale will also address the issue of the security of gas supplies highlighted by the current energy crisis and in REPowerEU. In this paper, the European Heat Pump Associations recommends how to shape the EPBD in order to unlock a large scale heat pump deployment.

Clarify provisions on the phase out of fossil fuel boilers and the roll out of heat pumps

Long-term ambitious policy signals and clarity on the future heating landscape are key to speed up the decarbonisation and energy efficiency of the heating sector and to avoid fossil-fuel lock-ins. Therefore an ambitious phase out of fossil fuel boilers should be put forward in the EPBD by:

- **Art. 7 and Art. 8: not including any loophole that would enable fossil fuel boilers to keep being installed in the long run in both new and existing buildings if they are ‘renewable fuel ready’ as proposed in the European Parliament’s position on article 7 and 8. Banking on the promise of the arrival of ‘renewable’ gas later this decade is a huge risk and would lead to fossil fuels being locked in for decades.**
- Art. 3 and Annex III: clearly announcing an ambitious national fossil fuel phase out by including this not only in annex II, but also in article 3 and by setting the data as early as possible as proposed by the European Parliament.
- Art. 15: introducing an end date for fossil fuel boilers on 1/1/2024 as proposed by the European Parliament.
- Art. 9a: requiring Member States to include a pathway for numerical targets for national contribution to the deployment of heat pumps in buildings in national renovation plans and national energy and climate plans as put forward by the European Parliament.

Make heat pumps the “no-regret” choice in zero emission buildings

Heat pumps are one of the key elements in achieving zero emission targets in the building sector since it heating technology without on-site carbon emissions from fossil fuels. However, a building can still be “zero-emission” and have a very high energy performance if it uses a heat pump that captures on-site renewable energy from the environment and uses renewable energy from the grid as driving energy. The emission level of the energy consumed should be the defining criteria rather than proximity of the grid that delivers the energy. When looking at the geophysical diversity of the EU territories, the EPBD should take into account that on-site generation is not possible everywhere and renewable energy communities are not yet widespread. In addition, the current EC and EP proposal would lead to the irrationality that a building using a heat pump would not fulfil the requirements of a zero emission building unless by assistance of solar PV, but the very same building would fulfill the requirement

without PV if the building is using district heat generated by a large electric heat pump. The use of heat pumps in zero emission buildings should be clarified and reflected in the definition of a zero emission building by:

- Art. 2 and Annex III: including renewable sources from the grid among the listed energy sources (so at the same level as onsite or nearby renewable energy sources, renewable energy from an energy community, renewable energy and waste heat from efficient district heating and cooling).

Align the technical building system requirements with EU Ecodesign requirements

The requirements for technical building systems including heat pumps in EPBD should be in line with the EU Ecodesign framework and requirements. According to Ecodesign, Member States should not take more restrictive measures on a matter as this would create fragmentation on the EU market.¹ Two elements in article 11 of the EP position on Ecodesign should be adapted in order to take this into account:

- Art. 11.1 of the EP position asks Member States to ensure the use of the equipment that “meets the criteria for the highest available energy efficiency classes in accordance with the relevant acts of the Union on energy labelling”. This is in contradiction with the Ecodesign and Energy labelling requirements which are intended to be the same for the whole EU and which do not allow Member States to set stricter requirements. This wording in the EP position would also exclude technical building systems on which no energy labelling (but only ecodesign) requirements are applicable even though also these are important to increase energy efficiency in buildings.

To allow for all heat pumps to contribute to increasing energy efficiency in buildings, balancing should be promoted for all heat pumps:

- Art. 11.1 and 11.2. of the EP position refers only to hydronic balancing, this should be adapted and refer to balancing in general so that all types of heat pumps (both hydronic and heat pumps with an air based distribution system) are included.

Use the correct heat pump definition

Since heat pumps are a key technology contributing to more efficient buildings, they should have their proper and correct definition in the EPBD, especially because definitions for boiler, district heating, heating system and heat generator are included in the EC proposal. This can be addressed by :

- Art. 2 (40a) including the heat pump definition as proposed by the European Parliament and slightly improving it to make it technologically correct by adding the words in bold : *‘heat pump’ means a machine, a device or installation that transfers heat from/to sources/sinks such as air, water or ground to **or from** buildings or industrial applications for the purpose of providing heating, cooling or domestic hot water.*
 - ⇒ To properly reflect both the heating and cooling function that heat pumps have and that are included in the definition, « air, water or ground » should be defined as sources or sinks depending on whether the heat pump is in heating or cooling mode. Also « buildings and industrial applications » can be either sources or sinks depending on the cooling or heating function of the heat pump.

¹ [Ecodesign Blue Guide](#) and [Ecodesign Directive 2009/125/EC art. 7 and art. 23](#)

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The [European Heat Pump Association](http://www.ehpa.org) (EHPA) represents the European heat pump sector.

EHPA works to shape EU policy that allows heat pumps to become the number one heating and cooling choice by 2030 and a key part of a future decarbonised Europe.

EHPA advocates and communicates to policy-makers and to our members. EHPA organises high level events and is involved in multiple projects.

EHPA coordinates the Heat Pump Keymark – a European certification scheme.

More: ehpa.org