

Proposal of the EPBD Recast:

Can it get the EU's building stock ready for 2030 and after?



JASPER VERMAUT

REHVA, Policy & Project Officer
jv@rehva.eu

December 2021 marked an important month for the EU's attempts to decarbonise its building stock with the release of the proposal for a new revision of the Energy Performance of Buildings Directive (EPBD) by the European Commission.[1] A broad range of provisions within the EPBD have been changed and added, which finalised its previous revision in 2018, with the aim to steer the EU's decarbonisation efforts in a more ambitious direction within the Fit for 55-package. In this article we'll set the context for this new proposal for a revision, the key novelties that are introduced and what the next steps will be.

Policy context of the proposal

In October 2020 the Commission released the Renovation Wave strategy which set the ambition to, at minimum, double the annual renovation rate in Europe by 2030 and increase the share of *deep* renovations. The Commission assessed that the EPBD needed a new overhaul to accomplish these objectives. Worst-performing buildings have been made a priority as these have the largest potential for cost-effective improvements and are most urgent for protecting the most vulnerable households. In addition, the proposal aims to increase the quality of the renovations that take place and ensure that they have an impact in terms of energy performance and decarbonisation. Both priorities have been addressed within the proposal for a new revision of the EPBD with the introduction minimum energy performance standards (please see "NEW Article 9: Minimum energy performance standards (MEPS) for existing buildings" on page 63) and a definition on zero-emission building (please see "Article 2: Definitions" on page 63).

To accomplish the ambitions set under the Green Deal the Commission released the Fit for 55-package in two parts to get the EU's policy environment ready to reach the reduction target on greenhouse gases (GHG) of 55% by 2030. A mammoth package of 13 proposals was released in July 2021, among which there were the revisions of the Renewable Energy & Energy Efficiency Directives and the extension of the EU ETS to the transport and building sectors. [2] The EPBD proposal was part of the winter package released in December, together with proposals to reform the gas market.

The Commission states that the revision of the EPBD goes hand-in-hand with the extension of the EU ETS to the building sectors, where the latter aims to create more economic incentives for building decarbonisation by putting an extra cost on CO₂ emitted in buildings, while the EPBD recast aims to address the non-economic barriers, such as building standards and information tools.[3] It needs to be noted here that Article 15 still addresses multiple market incentives & barriers (please see "NEW Article 15: Financial barriers" on page 64).

Key novelties of the EPBD recast proposal

Below you can find a summary of key additions & changes made into the EPBD recast proposal. This list is non-exhaustive, follow the REHVA Knowledge Hub to access a more detailed overview.[4]

Article 2: Definitions

- Art. 2(2): ‘**Zero-Emission Building**’ (ZEB) is introduced as a new definition where a building with very high energy performance any energy needs are covered by renewable sources generated on-site. **Requirements regarding total annual primary energy use for ZEBs are laid down in Annex III** (please see “Annex III: Zero-Emission Building Requirements” on page 64 for more information).
- Art. 2(3): ‘**Nearly Zero Energy Building**’ (NZEB) remains the standard for new buildings until the application of the ZEB standard in 2030, which then replaces NZEB.
- Art. 2(19): ‘**Deep Renovation**’ means a renovation that transforms a building or building unit into an NZEB before 2030 and into a ZEB starting from that year onwards.

Article 3: Long-term Renovation Strategies renamed to National Building Renovation Plans (NBRP)

One of the key updates in the requirements is a national roadmap where Member States have to set targets for 2030, 2040 & 2050 on different indicators such as annual energy renovation rate, primary and final energy consumption of the national building stock and its operational GHG reductions. For 2050 the objective for the transformation of the existing building stock is raised from NZEB to ZEB.

Article 6: Calculation of cost optimal minimum energy performance requirements

6(1): By 30 June 2026, the EC shall revise the comparative methodology framework for calculating cost-optimal levels of minimum energy performance requirements in existing buildings undergoing major renovation. The first Member State reports that are in accordance with the new methodology have to be submitted in 2028.

Article 7: New Buildings

7(1): All **new public buildings** shall be **zero-emission buildings from 2027**, and **all other new buildings from 2030**. **Life-cycle Global Warming Potential (GWP)** for all new buildings shall be calculated as numeric indicator in the EPC-s with the same timeline. Calculation of GWP for new buildings is **laid down**

in Annex III and is in accordance with EN 15978 and the LEVELs framework.

7(4): New requirement for new buildings: MS **shall address healthy indoor climate conditions**, adaptation to climate change, fire safety and risks related to intense seismic activity.

NEW Article 9: Minimum energy performance standards (MEPS) for existing buildings

9(1): With the goal to transform the national building stock to zero-emission by 2050 a progressive MEPS timeline has been set for different types of buildings to be achieved in the coming decade:

- Buildings & building units owned by public bodies to achieve at least EP class F by 2027 and class E by 2030.
- Non-residential buildings & building units to achieve at least class F by 2027 and class E by 2030.
- Residential buildings & building units to achieve at least class F by 2030 and class E by 2033.

NEW Article 10: Renovation Passport

A new article introduces the **Renovation Passport** as a document that provides a tailored roadmap for the renovation of a specific building in several steps. By 2023, the EC shall establish a common European framework in a delegated act. MS to introduce the national schemes according to the EU framework by end of 2024. The passport should contain expected benefits in terms of energy savings, savings on bills and operational GHG reductions, as well as benefits related to health and comfort.

Article 11: Technical building systems

11(1): MS shall ensure that the set requirements for technical building systems reach at least the latest cost-optimal levels. They may also set requirements related to GHG emissions to the type of fuel used by heat generators, provided that such requirements do not become unjustifiable market barriers.

11(3): MS shall require the **installation of IAQ monitoring devices** in new zero emission buildings and where technically & economically feasible, in existing buildings undergoing deep renovation as well.

Article 13: Smart readiness of buildings

13(2) + 13(4): By the end of 2025, EC shall publish a delegated and an implementing act on a common Union scheme for rating the smart readiness of non-residential buildings above 290 kW effective rated output.

NEW Article 15: Financial barriers

15(10): From 2027, MS shall not provide any financial incentives for the installation of fossil fuel boilers.

Articles 16-18: Energy Performance Certificates

16(1): EPCs shall include a primary energy use indicator for energy efficiency (not specified if total or non-renewable), reference values for minimum energy performance standards (Art. 9) and for NZEB & ZEB requirements.

16.2: Performance class A shall be a zero-emission building, class G correspond to the 15% worst-performing in the national building stock.

16.6: EPCs recommendations shall include an assessment whether heating or air-conditioning systems can be adapted to operate in more efficient temperature settings.

17.1: Buildings undergoing major renovations need to have EPCs, as well as all public buildings (owned or occupied by public authority).

NEW Article 19 Databases for energy performance of buildings

Member States shall to set up **integrated and interoperable national databases** on building energy performance with data to be gathered related to EPCs, inspections, building renovation passport, SRI and the calculated or metered energy consumption of the buildings covered. These databases shall be made publicly accessible.

Articles 20-21: Inspections & reporting on heating, ventilation, and air-conditioning systems

- Articles on inspection of heating & air-conditioning have been merged and extended with ventilation system in every aspect with updated requirements: separate inspection schemes for residential and non-residential buildings, different frequencies with a

maximum 5 year, systems with an effective rated output of more than 290 kW every 2 years.

- BACs and continuous monitoring:** from 2025 new residential buildings and residential buildings undergoing major renovation must be equipped with continuous electronic monitoring and effective control functionalities.

Annex III: Zero-Emission Building Requirements

The first part of Annex III lays down the requirements for ZEBs, both new and renovated. Maximum thresholds are laid down, expressed in **total annual primary energy use**, per climatic zone and per different building types. In addition, ZEBs shall not cause on-site carbon emissions from fossil fuels.

Annex V: New EPC Template to be used by the end of 2025

Key elements mentioned in Annex V to be included on the new EPCs:

- New mandatory elements on the EPC template include operational GHG & GHG emission class.
- Among the voluntary elements, EPCs may include an indication of the presence of fixed IAQ sensors & presence of fixed IAQ controls.

Next Steps

Stakeholders have until 21 March 2022 to provide feedback on the proposal, at time of writing REHVA is still putting together recommendations & comments with its members for this round. After this feedback round, the proposal will enter into inter-institutional dialogue between the Council of the EU and the European Parliament to amend the proposal. During the previous revision of the EPBD this process lasted around 18 months. The French Presidency has planned a ministerial conference, in Nice, in March 2022 to discuss energy efficiency in buildings and energy poverty.[5] It is expected that the Council will take a first position for the EPBD negotiations during the conference. ■

References

- [1] https://ec.europa.eu/commission/presscorner/detail/en/QANDA_21_6686
- [2] <https://www.rehva.eu/rehva-journal/chapter/fit-for-55-overview-of-most-important-policy-proposals-for-the-building-sector>
- [3] https://ec.europa.eu/commission/presscorner/detail/en/QANDA_21_6686
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