

EPBD RECAST: NEW PROVISIONS NEED SHARPENING TO HIT CLIMATE TARGETS

POLICY BRIEFING

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INTRODUCTION

In December 2021, the European Commission published its proposal for revising the Energy Performance of Buildings Directive (EPBD). This revision is a full recast, with many provisions either introduced or modified and covering a broad set of issues. This paper provides a high-level assessment of the main provisions of the EPBD recast proposal, benchmarking the potential impact of the Directive compared to its announced 2050 vision for the building stock, as well as the expected contribution to the 2030 climate target. For a full set of recommendations from BPIE on the EPBD revision, please refer to [this earlier policy paper](#).¹



An ambitious Buildings Directive is crucial to achieve a climate-neutral building sector, while the proposed carbon pricing in the building sector can be a complementary measure to a successful EPBD.



The EPBD must be considered a pivotal element of the Fit for 55 Package as it is the key legislative tool to deeply renovate and fully decarbonise the building stock in a way that brings benefits to all citizens and protects the most vulnerable. Delivering on the 2030 and 2050 climate targets in a socially just manner will not be possible by relying only on the legislative measures proposed under the first part of the Fit for 55 Package in July 2021.

The current recast EPBD proposal is a good working basis for improving the building renovation ecosystem (planning, financing, information and advisory tools), but changes might end up meaningless and won't lead to the expected impact if they are not geared towards the right objectives.

¹ BPIE (Buildings Performance Institute Europe) (2021). The make-or-break decade: Making the EPBD fit for 2030. www.bpie.eu/publication/the-make-or-break-decademaking-the-epbd-fit-for-2030



Unless the proposed elements are strengthened, better linked to each other and tied with the idea of achieving deep renovation, the EPBD will not drive the buildings sector to deliver the Renovation Wave objectives, the 2030 climate target and climate neutrality by 2050.



The scope of the EPBD recast proposal is incomplete, as the updated 2050 vision for the building stock only considers the operational phase of emissions from buildings. This long-term vision is also unbalanced, with a focus on reducing operational greenhouse gas emissions mainly through a full switch to renewables, while the “energy efficiency first” principle is not reflected in the outlined provisions.²

Drastically reducing the energy demand from buildings through deep energy renovation does not seem to be a priority in the proposal. While the text introduces a definition for deep renovation, it is still understood as an exception and is not reflected in the design of policies as the necessary default approach to achieve the EU climate target. Further, the proposal could be much stronger when it comes to the objective of lifting people out of energy poverty – an aim which is especially important in the current context of high energy prices. While BPIE welcomes the introduction of minimum energy performance standards (MEPS), the current design results in a risk of locking the worst-performing buildings into the bottom performance class E after 2030.

² It is only mentioned in Recital 6.

AN UNBALANCED LONG-TERM VISION AND INCOMPLETE SCOPE

ZERO EMISSION BUILDING STOCK BY 2050



RECITAL 19; ARTICLES 1 & 2

Besides the improvement of the energy performance of buildings, the recast EPBD adds the reduction of greenhouse gas emissions as another specific objective of the Directive, with a view to achieving **a zero-emission building stock by 2050**. The concept of 'zero emission' in the long-term vision mirrors the definition of 'zero emission building' (ZEB) in Article 2 and the standards set for new construction as of 2030. In the EPBD recast proposal, this means achieving a very high energy performance and supplying the very low remaining energy demand fully with renewables. Moreover, the proposal announces that existing buildings should be transformed into ZEBs by 2050.

BPIE welcomes the widening of the EPBD's scope to include greenhouse gas emissions reduction in addition to energy performance requirements, with whole-life carbon starting to be considered in some provisions (see below). The Directive should be benchmarked against its contribution to the achievement of climate targets. However, we believe the 2050 vision for the building stock should be rephrased as '*net zero operational energy and net zero carbon over the whole lifecycle*'. This phrase would more explicitly spell out that the full decarbonisation of the buildings stock should be based on three pillars:



THE FULL DECARBONIZATION OF THE BUILDINGS STOCK BASED ON THREE PILLARS

1. Reducing the energy demand during the operational phase, applying the energy efficiency first principle;
2. Switching to full renewable energy supply during the operational phase, reducing operational greenhouse gas emissions; and
3. Reducing embodied greenhouse gas emissions, adopting a whole-life carbon perspective.

In the text proposed for the recast, there is an imbalance towards pillar 2, while the introduction of pillar 3 is too slow (see below). The Commission's impact assessment outlines a baseline and four policy options and explains that *"following the negative opinions of the Regulatory Scrutiny Board, [...] the legislative proposal has been aligned with option 2 on moderate ambition for several aspects, including the renovation of existing buildings, whilst keeping option 3 for new buildings"*.³ However, proposed policies under option 2 are not bringing the EU on track with the 2030 climate target. The Commission indicates that they would lead to an *average* renovation rate of 0.2 percentage points higher in 2030 compared to today's average⁴, while BPIE has calculated that the *deep* energy renovation rate should be increased by a factor of 15 by 2030, to reach 3% per year, if the EU is to reach its objectives.⁵ A further concern with choosing policies under option 2 is that only 11% of the building stock would be deeply renovated by 2050, leaving a large number of buildings either untouched or shallowly renovated.⁶ BPIE has calculated that this share should already be at 34% by 2030.⁷ Overall, this means that the policies currently proposed for existing buildings by the EPBD recast are not sufficient to reach the 2030 climate target, as they do not lead to the necessary increase in terms of both renovation rate and depth. A rebalancing of the objectives towards increased energy performance is therefore necessary if the EPBD is to contribute not only to the 2030 climate (greenhouse gas emissions reduction) target but also to the energy efficiency target. This would also enhance the other non-energy benefits of building renovation, such as increased comfort, lower energy bills and improved health.



WHOLE-LIFE CARBON



ARTICLES 2 & 7; ANNEX III

The widening of the scope of the Directive encompasses the operational side of greenhouse gas emissions, but is too limited with respect to whole-life carbon. The 2050 vision of a zero-emission building stock only refers to the operational phase. Whole-life carbon aspects are absent from the definition of zero emission buildings, the upgraded standard applicable to new buildings as of 2030, despite definitions for life-cycle greenhouse gas emissions and global warming potential being rightly introduced. For new buildings, the EPBD text requires that as of 2030⁸ the life-cycle global warming potential should be calculated, based on the EU wide Level(s) framework and standard EN 15978 (national methodologies may be used in addition). The global warming potential will then have to be disclosed in the energy performance certificate (EPC).

³ COM SWD(2021) 454 final, Executive Summary of the Impact Assessment Report

⁴ COM SWD(2021) 454 final, Executive Summary of the Impact Assessment Report

⁵ www.bpie.eu/wp-content/uploads/2020/12/On-the-way-to-a-climate-neutral-Europe-Final.pdf

⁶ COM Impact Assessment, page 75

⁷ www.bpie.eu/wp-content/uploads/2020/12/On-the-way-to-a-climate-neutral-Europe-Final.pdf

The proposed changes should go beyond simply *considering* embodied emissions (through reporting) towards really addressing them and *requiring* their reduction, complementing the energy efficiency first principle. However, the proposal does not introduce a cap or measures to reduce embodied emissions from new buildings after 2030. Requirements to disclose embodied greenhouse gas emissions only apply to new buildings, with whole-life carbon not being considered in the proposal's requirements on renovation policies. The EPBD recast only requires Member States to report, as part of their building renovation plan (see below), on their implemented and planned policies to reduce whole life-cycle greenhouse gas emissions. However, there are no requirements against which these reported national policies would be benchmarked, nor is any guidance provided about what measures to put in place, at which ambition level or by when.



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⁸ 2027 for buildings >2000m²

MORE AMBITION NEEDED TO DECARBONIZE ALL BUILDINGS AND TO TRIGGER DEEP RENOVATION STANDARD FOR NEW BUILDINGS



ARTICLES 2 & 7; ANNEXES I & III

The recast EPBD sets a new standard, zero emission building (ZEB), which new buildings must comply with by 2030 (2027 for new buildings owned or occupied by public authorities). A ZEB is defined by the proposal as a building with a very high energy performance, where the very low amount of energy still required is fully covered by renewable energy, generated on-site, from a renewable energy community or from a district heating and cooling system. BPIE welcomes this upgrade to the current standard applying to new builds (nearly zero energy building – NZEB), but the change, although going in the right direction, does not go far or fast enough on several points.

In terms of focus, the priority is set on reducing operational greenhouse gas emissions through a full switch to renewable energy supply, with eligible sources defined in Article 2§13. This is a positive development, but not enough to reach a climate-neutral building stock by 2050. The maximum thresholds for total annual primary energy use, set out in Annex III and which can be adapted by the Commission through a delegated act, are still too high, as they reflect values already included in a Commission Recommendation on NZEBs in 2016.⁹ Another issue is that the whole-life carbon performance of new buildings is not considered in the definition.

Finally, questions can be raised around the timing of the obligation. BPIE considers that new buildings should already be ZEBs as of 2025, meaning achieving very high energy performance levels (with lower thresholds than in Annex III), and fully supplied by renewable energy. Those new buildings should also start to be subject to whole-life carbon thresholds which would be tightened over time, reaching net zero carbon emissions over the entire life-cycle around 2035.

⁹ eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32016H1318&from=RO



DEEP RENOVATION



ARTICLES 2 & 15

The EPBD recast proposal introduces a much-needed definition for deep renovation: a renovation transforming a building into a NZEB (before 2030) and into a ZEB, i.e., to EPC class A (as of 2030). The text also introduces a definition for staged deep renovation, *“a deep renovation carried out in several steps, following the steps set out in a renovation passport.”* However, the proposal fails to make deep renovation the default approach and raises other concerns.



First, while the EPBD recast introduces one definition for the ZEB concept, there would be two different sets of values used for maximum primary energy consumption levels – one for new builds and one for existing buildings being renovated. The thresholds applying to new builds are already included in the proposal (Annex III). Those applying to existing buildings being renovated should be based on the values in Annex III but could be adjusted by the Commission through a delegated act (see Article 7§3), with the risk of inconsistency.



Another issue is that the proposed definition does not consider the starting point of the building in terms of energy performance. A renovation bringing a building from B to A class would be labelled “deep”, as would the renovation bringing a building from E to A class. In terms energy savings, however, these two renovations are not equivalent at all.



Finally, the proposed definition fails to include the whole-life carbon aspects of deep renovation. Although embodied emissions from deep renovations typically represent less than half of embodied emissions from new buildings, they are still a key aspect to consider.



Changing the approach adopted towards deep renovation in the EPBD recast holds the potential to massively increase the impact of the Directive and increase its contribution towards the 2030 climate target.



Even more worrying than issues linked to the definition itself is the (lack of) importance given to deep renovation throughout the proposal, although it claims to make it “*a gold standard for building renovation*”.¹⁰ The EPBD recast proposal misses the mark on mainstreaming deep renovation into the architecture of the whole Directive. It is not a guiding principle reflected in the design of all policy measures, notably MEPS (see below). Rather, the EPBD recast seems to make use of the deep renovation definition only in relation to financing programmes, using it as a threshold setter in an in/out approach. This could result in the use of financing programmes for the deep renovation of a small number of buildings instead of a set of comprehensive policies and deep renovation programmes targeting the majority of buildings. By following the Commission’s proposal, most programmes could fund renovations only achieving “*at least 30% energy savings*”, a level which is not aligned with deep renovation ambition. Overall, deep renovation is still presented as one (exceptional) “category” of renovation amongst others. Changing this approach in the EPBD recast holds the potential to massively increase the impact of the Directive and increase its contribution towards the 2030 climate target. For more recommendations on deep renovation, see [this earlier BPIE paper](#).¹¹

¹⁰ Explanatory Memorandum, page 12

¹¹ BPIE (Buildings Performance Institute Europe) (2021). Deep Renovation: Shifting from exception to standard practice in EU Policy. www.bpie.eu/wp-content/uploads/2021/11/BPIE_Deep-Renovation-Briefing_Final.pdf

MINIMUM ENERGY PERFORMANCE STANDARDS (MEPS)



ARTICLE 9

The EPBD recast proposal requires Member States to ensure that buildings owned by public bodies and non-residential buildings reach at least class F by 2027 and class E by 2030. For residential buildings, those requirements apply in 2030 and 2033. With the concurrent reform of the EPC system (see below), class G will as of 2026 represent the 15% worst-performing buildings at national level (and F around 15% of the buildings just above that group). Member States may apply MEPS to the rest of the building stock but are not required to do so.

The introduction of a MEPS framework in the EPBD to increase the renovation rate of worst-performing buildings is a great addition to the Directive, but it should also be geared towards increasing the renovation depth. Without complementary mandatory provisions applying to buildings above class F and without a clear roadmap with milestones setting higher minimum performance levels beyond 2030/2033, there is a high risk that 30% of the stock will be brought to class E by that date, but then locked-in at that level until 2050. This means the vision of transforming existing buildings into ZEBs (equivalent to class A) by 2050 is at high risk of not materialising. The MEPS framework should be strengthened and outline how all buildings would be brought to the highest performance classes in a dynamic way up to 2050.

The MEPS framework also raises questions from a social perspective. In its current design, it will not lift people living in worst-performing buildings out of energy poverty but rather lock them into “second-worst” buildings in the decades to come. The EPBD recast proposal requires Member States to support compliance with MEPS, notably financially. The importance of technical assistance, including one-stop-shops, is recognised, but the link with renovation passports, which are useful tools to support deep renovation, should also be made. The EPBD recast proposal requires Member States to pay attention to vulnerable households, but setting the monitoring and verification framework is largely left to the national level.

Requirements on this remain vague, so it is questionable whether compliance mechanisms will be effective. In addition, the EPBD recast proposal does not require Member States to make a coordinated use, besides backstop dates, of natural trigger points in the life of a building, such as point of sale or rent; these could act as boosters for implementation and compliance with MEPS.

It is understandable that responsibility is shifted to Member States when it comes to the practical development and implementation of MEPS. However, the lack of a clear and ambitious forward-looking EU framework, establishing the dynamic upgrade of performance requirements for all buildings after 2030, puts at risk the achievement of climate neutrality by 2050.



HEATING AND COOLING DECARBONISATION AND FOSSIL FUEL PHASE-OUT



ARTICLES 2,7,11 & 15; ANNEX II

The EPBD recast introduces several measures to kick-start or incentivise a fossil fuel phase-out in the buildings sector, but these provisions are either too weak, leaving Member States too much leeway, or have deadlines not aligned with the 2050 targets.

THE THREE MAIN POINTS OF CONCERN IN THE EPBD RECAST PROPOSAL RELATED TO HEATING AND COOLING AND FOSSIL FUEL PHASE –OUT:

- 1.** **Requires** Member States to include an overview of implemented and planned policies to “*phase out fossil fuels in heating and cooling with a view to a complete phase-out by 2040 at the latest*” in their building renovation plan (see below). This provision should be strengthened from being a reporting indicator to a real requirement, ensuring that Member States actually deliver a fossil fuel phase-out rather than simply outline a list of measures whose impact cannot be clearly measured and benchmarked.
- 2.** **Allows** Member States to set requirements related to the greenhouse gas emissions of, or to the type of fuel used by, heat generators. This new provision represents the legal basis to ban the use of fossil fuel in heating and cooling, but again, as Member States are not required to introduce these obligations, the proposal is not strong enough to push for a full decarbonisation of operational energy use in existing buildings.
- 3.** **Forbids** Member States as of 2027 to provide any financial incentives for the installation of fossil fuel boilers. The end of public support to carbon-intensive heating and cooling equipment is welcome, but it is set too late. It should be brought to 2024, to align the provision with the Energy Efficiency Directive Article 8 and to prepare the ground for constructing new buildings supplied only by renewable energy.

A GOOD WORKING BASIS ON THE BUILDING RENOVATION ECOSYSTEM (PLANNING, FINANCING, INFORMATION AND ADVISORY NATIONAL BUILDING RENOVATION PLANS



ARTICLE 3; ANNEX II

National building renovation plans will replace long-term renovation strategies, with several improvements, including a more ambitious vision for 2050, clear links to other planning tools, a better governance system, and a mandatory template for Member States.

The objective to reach a *“highly energy efficient and decarbonised building stock by 2050”* remains, but it is also stated that existing buildings shall be transformed into zero-emission buildings. The long-term vision for the building stock is thus based on 100% renewable energy supply.

Encouragingly, the proposal adds more detailed requirements for national building renovation plans than in the previous long-term renovation strategies. The EPBD recast proposal obliges Member States to use a template with mandatory (e.g., nationally established targets for 2030, 2040 and 2050) and voluntary elements when drafting their national building renovation plans.

In terms of scope, the proposal draws links between the national building renovation plan and how it contributes to other energy and climate targets. However, more specific mentions of the need to coordinate the drafting of the national building renovation plan with other planning tools could have been included.

There are also positive developments regarding the governance structure. The proposal shortens the planning cycle from 10 to 5 years and aligns it with the timeline of national energy and climate plans, foreseeing the submission of the first draft national building renovation plans by end of June 2024, together with the national energy and climate plan update. This draft plan will then be assessed by the Commission, which can issue country-specific recommendations within six months. Member States would subsequently submit a final national building renovation plan by end of June 2025.



FINANCIAL AND TECHNICAL ASSISTANCE



ARTICLE 15

The EPBD recast proposal requires Member States to provide appropriate financing to energy renovations in line with their national building renovation plan and with a view to transforming existing buildings into ZEBs by 2050. Member States are also incentivised to “*make best cost-effective use*” of a list of funds where building renovation is eligible (e.g., Recovery and Resilience Fund, Social Climate Fund, cohesion policy funds, InvestEU, ETS2 revenues). Unfortunately, allocations under these funding sources are not (sufficiently) ringfenced for building renovation. The EPBD recast proposal rightly promotes the use of innovative financing tools, such as mortgage portfolio standards or on-bill schemes. It also requires Member States to target vulnerable households as a priority, and to fund education and training in order to ensure the needs and capacity of the construction workforce are met. In order to secure smooth implementation of renovation programmes, one point should be added in the EPBD recast proposal: Member States should be required to set up subsidy schemes, adopting a long-term perspective and lifetime, to ensure good planning of the use of financial resources in line with the 2050 vision for the building stock.

The EPBD recast proposal recognises in several instances the crucial importance of financing and advisory services, such as one-stop-shops, for the implementation of policy measures, notably MEPS. However, all these measures would have a much greater impact if they were more clearly tied to stronger requirements in terms of energy reduction and share of renewables to be achieved. Without having the overall objective of deeply renovating and fully decarbonising the building, there is a risk of a sub-optimal use of financial and advisory resources, preventing the EU from meeting its 2030 and 2050 targets. For example, the EPBD recast proposal requires Member States to link their financial measures for energy performance improvements to the targeted or achieved energy savings, but there is no clear requirement to have at all times a proportional link between the two. Besides, financing for deep renovation is presented as an exception; instead, Member States should incentivise, through higher support, “*sizeable programmes addressing a high number of buildings and resulting in an overall reduction of at least 30% of primary energy demand*”. Defining such a low threshold for energy saving increases the risk of lock-in of buildings with insufficient energy performance.

ENERGY PERFORMANCE CERTIFICATES



ARTICLES 16 TO 19; ANNEX V

The EPBD recast proposal introduces positive and comprehensive improvements to the EPC framework. It requires Member States to ensure that, as of 2026, all EPCs comply with a common EU template, which includes indicators on primary energy use, operational greenhouse gas emissions and the share of renewable energy in energy use. By the same date, EPCs will have to be based on a harmonised scale of classes, with A representing zero emission buildings, and G equating to the 15% worst-performing buildings at national level. BPIE applauds the proposal for an increased scope of indicators and the push for ensuring more comparability. One additional class (A+) should be added to account for positive energy buildings, which have an even higher performance level than ZEBs. The EPBD recast proposal also states that EPCs from G to D class have a validity period of five years, while EPCs from C to A class are valid for 10 years. The new text requires Member States to ensure that EPCs are digital and issued by independent experts following an on-site visit.

However, all the improvements made on rescaling, design and additional indicators might only apply to a small proportion of EPCs, since not all buildings would be required to get a new EPC by an established date. Besides the current obligation to issue an EPC when a building is constructed, sold or rented to a new tenant, the EPBD recast proposal rightly widens it to other situations, such as the renewal of an existing rental contract and major renovation. In addition, buildings owned or occupied by public bodies must all get an EPC. These modifications, although welcome, will not drastically expand the coverage of the building stock with EPCs. It is also unclear whether EPCs issued before the end of 2025 would have to be reissued according to the new provisions, or if they would still be valid for another 5 or 10 years, leading to two different types of EPCs on the market. This is a critical point when considering that the implementation of other provisions, like MEPS, will be based on an EPC rating.



RENOVATION PASSPORT



ARTICLE 10

The EPBD recast proposal introduces the requirement for Member States to introduce by end of 2024 a scheme for renovation passports, based on a common EU framework established by the Commission by end of 2023. National schemes will need to make renovation passports available to building owners, for use on a voluntary basis. The recast EPBD proposal defines the renovation passport as *“a document that provides a tailored roadmap for the renovation of a specific building in several steps that will significantly improve its energy performance.”*

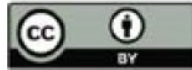
Some quality requirements, which will be further detailed in a delegated act, are added. Renovation passports will follow an on-site visit by a qualified/certified expert, indicate a sequence of renovation works with the objective to transform the building into a ZEB by 2050 latest, and include information on expected benefits as well as potential financial and technical support. It is positive that the EPBD recast proposal recognises the usefulness of renovation passports as key instruments to deliver renovations, and the proposed provisions are a good starting point. The development of the common EU framework needs to be strong and detailed enough on specifying or adding quality elements (e.g., coordination/synergy with EPCs, alignment with deep renovation ambition) to avoid any discrepancy between the different national schemes.



CONCLUSION

Overall, the recast proposal does not yet reflect the crucial role the EPBD should play within the Fit for 55 Package. While it is welcome that many provisions are either introduced or open for modification, they will not deliver on the Directive's objectives if the ambition is not set at the right level, and if measures are not made more stringent and coherent. With the legislative process starting, there is an opportunity to ensure the final Directive is improved and fully aligned with the EU climate and energy efficiency objectives. Considering the next EPBD revision is not planned until the end of 2027, the time to upgrade the EU building renovation policy is now if the EU is to achieve its 2030 and 2050 climate targets in a socially just way. The urgency to implement comprehensive measures to slow down climate change makes this third decade of the 21st century a make-or-break decade for the transformation towards a truly sustainable society. This opportunity cannot be missed.

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