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EEB feedback to the Inception Impact Assessment for the revision of the Energy Performance of Buildings Directive 2010/31/EU

Context and environmental, economic, and social expectations

EEB welcomes the Energy Performance of Buildings Directive (EPBD) revision, as buildings are crucial for achieving the EU environmental objectives in 2050. This review must be ambitious and timely based on the environmental impact figures for buildings provided by the Inception Impact Assessment (IIA), especially considering that the reality of greenhouse gas emissions from buildings is worse, as only the use and operation of buildings are included in the IIA figures. A low percentage of deep and light renovations, not including embodied carbon emissions and not considering the Whole Lifecycle Carbon (WLC) of buildings, hinders the achievement of the zero-energy building stock in the EU. Furthermore, the objective to at least double the range of renovations within the Renovation Wave is not enough to achieve the EU environmental objectives by 2050. The EPBD, as an essential part of the Renovation Wave initiative, should pave the way for a radical transformation of the building stock and not be just an incremental change.

Although the IIA is in the right direction, the level of ambition is not enough to achieve the decarbonisation of the built stock. A comprehensive and deep review of the EPBD is needed to address the decarbonisation of buildings beyond the energy performance target, including other lifecycle impacts. In order to achieve the EU environmental objectives by 2030 and by 2050, EEB expects that the EPBD revision includes:

- increasing at least three times the number of renovations, focusing on one-step deep renovations;
- ensuring the decarbonisation of buildings in their whole lifecycle, promoting circularity actions, among others;
- establishing minimal legal energy performance requirements for buildings;
- reducing the energy demand and improving an effective resource-use, boosting the use of renewable energy;
- reducing the need for fossil imports. Fossil fuels should be phased out in both deep and light renovations, first and foremost in heating and cooling;

Renovations: Economic and Social Impacts

Increasing the renovation rate stimulates the local economy, boosts related services economy/non-material economic activities, and creates jobs at the local level. However, creating a market that ensures low carbon solutions, the efficiency of buildings, and promotes technical expertise should be a priority. For that purpose, providing financial support to encourage efficiency and circularity measures in buildings, promote new technology skills, and facilitate economic subsidies and incentives for deep renovations should guide the implementation process to have sustainable impacts, including at the local level.

Likewise, the negative social and economic impacts of refurbishments should be tackled. On the one hand, renovations should be accessible for any consumer, reducing energy poverty and supporting future adaptation for any other further uses of the building. On the other hand, economic and social

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measures that mitigate the risks of renoviction and gentrification processes should be considered by prioritising existing tenants and maintaining communities.

Policy Roadmap

As mentioned in the IIA, "*the existing legislative framework is insufficient to achieve the necessary decarbonisation of the EU building stock."1.* Consequently, the EPBD revision should be ambitious and linked to other policy initiatives which are not mentioned, such as the Waste Framework Directive or the Construction Products Regulation revision. Moreover, a holistic overview and coordination between the different policies should be developed, and the European Strategy for a Sustainable Built Environment would be the first step for it.

When it comes to the policy options presented in the IIA, option three could offer the best road to make buildings more sustainable. EEB suggests including the additional considerations:

- The EPBD revision should **address both operational energy-use and embodied impacts** that tackle carbon embodied emissions in both buildings and construction materials, ensuring a whole lifecycle approach;
- Including more stringent **binding requirements for implementing EPBD and MS building codes** that are influential in achieving EU climate goals.
- The **Energy Performance Certificate (EPC**) revision should include measures for the total decarbonisation of buildings, including energy efficiency and circularity measures to reduce buildings' overall energy consumption and climate change effect. Buildings that are also fully powered with renewable sources should have a higher performance in the EPC;
- The **cost-optimal approach** should also be revised, including lifecycle costing and the multiple environmental, economic and social benefits
- **Data collection** strategies should be included; some of these could use Environmental Product Declaration schemes, auditing loops on performance, creating a CE data space, building logbooks and construction product passports that would help aggregate data and information.

In order to achieve the EU environmental objectives by 2030-2050, **an extensive revision of the EPBD should be done** based on, assessment of former implementation steps, fit-for-purpose and better cohesion with the Long Term Renovations Strategies. All of this would significantly differ from the more incremental revision that is mentioned in the IIA.

Decarbonisation of Buildings

The total decarbonisation of buildings towards a Zero-Energy building stock should be promoted in the EPBD revision, as it targets a wider reduction of greenhouse gas emissions. The construction of new buildings in greenfield should also be avoided to limit further soil sealing.
EEB recommends including the following points for the decarbonisation and the reduction of environmental impacts of buildings:

[1] EPBD Inception Impact Assessment: https://ec.europa.eu/info/law/better-regulation/have-your-say/initiatives/12910-Revision-of-the-Energy-Performance-of-Buildings-Directive-2010-31-EU

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- **Minimum Energy Performance Standard (MEPs).** Ambitious mandatory MEPs for any type of buildings should be established, including whole lifecycle energy/emissions. MEPs should be legislative requirements that rule out the worst-performing buildings from the market. They should also be measured by using a common approach across the Member States;
- **Whole Lifecycle Carbon approach**. The Whole Lifecycle Carbon approach to energy efficiency and circularity strategies should be addressed by the EPBD, including both operational energy-use and embodied impacts. Level(s), based on EN 15978, would support assessing such a lifecycle performance;
- **Nearly Zero-Energy Buildings (NZEB),** excluding the use of fossil fuels, including H2 use for direct heating. It should be a priority to revise the NZEBs harmonised criteria based on whole lifecycle energy, accompanied by GHG emissions performances criteria as a part of plans by the Member States. These standards will permit to assess Long Term Renovation Plans on a common basis and elaborate an ambitious route establishing a common benchmark EU climate law;
- **The decarbonisation of heating and cooling** is essential to carry out. However, it is necessary to go further than the reduction suggestions make in the Renovation Wave communication, as buildings have a higher potential, notably a more radical decarbonisation of heating should be required. Any fossil fuel operated appliance installed in coming years will compromise our carbon neutrality goal by 2050 due to their long lifetime;

Based on these points, the **Long Term Renovation Plans** of Member States should be aligned with the environmental EU objectives and approved at the EU-Level.

The European Commission should promote existing and new tools in the review of the EPBD that target the decarbonisation of buildings through lifecycle thinking and circularity. EEB suggests including the following measures:

Lifecycle thinking

- Whole Lifecycle Carbon (WLC) emissions should be measured during the lifecycle of the buildings through the EPCs. WLC performance should require the reporting of cumulative embodied impacts of buildings within the bounds of a long-term reference lifecycle;
- Promoting a new Lifecycle Carbon & Energy Performance Certificate that merges the embodied emissions and operational energy-use;
- On a more regular basis, the energy/performance audits using real data/performance should inform better about the implemented actions and monitoring of impacts;
- Promoting Member State plans for Lifecycle Zero Carbon Buildings, including lifecycle impacts.

Circular Economy

- Mandatory requirements should be defined to reuse and recycle construction materials from dismantling works so as to reduce waste generation;
- Promoting circular handling of salvaged materials from renovations through pre-demolition audits and creating markets for material revalorisation (e.g. via digital exchange platforms), should be included in renovation plans;

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- Providing supports for viable markets/business cases for secondary materials is a precondition to prevent materials from going to waste, which is an essential condition to ensure decarbonisation and not losing the value of materials;
- Supporting the use of sustainably sourced bio-based and circular building insulation materials.

Buildings Logbook and Passports

- Requiring the use of building logbooks for any major renovation above a certain surface threshold and incentivising them through local permitting rules for smaller operations
- Introducing requirements in the buildings logbook to include the embodied impacts of materials in new buildings. This could be part of the EPC assessments;
- The carbon footprint of construction products should be included in the Construction Product Passport. When it comes to renovations, the environmental and carbon footprints of buildings should be registered in the Building Renovation Passport;

Deep Renovations: Standards and One-Step Deep Renovations

Encouraging deep renovations is a key point to improve the energy efficiency and the decarbonisation of buildings. Defining "deep renovation" requirements and standards should be a priority in the EPBD revision. EEB considers that these requirements & standard should include:

- a minimum reduction of 60% in Primary Energy Demand;
- both targets and objectives for embedded emissions in building stocks and/or per building renovation;
- the establishment of a percentage of energy performance improvement and a percentage of improvement based on embodied emissions impacts of solutions.

One-step deep renovations should be the guide for the requirements and standards of deep renovations. Although improving the energy performance of buildings could lead to lower energy bills for consumers, staged deep renovations are overall much more expensive for tenants in the long term. One-step deep renovations are cheaper for citizens in the long term; therefore, several financial measures should be included to make this option more affordable for all.

Based on the points presented in this document, EEB considers that an extensive revision of the EPBD should be done to achieve the EU environmental objectives by 2030 and by 2050. Failing to do so will be a missed opportunity and will make it more costly in the future and more challenging to achieve the environmental targets.