

REMOVING THE REGULATORY BARRIERS TO THE DECARBONISATION OF BUILDINGS – THE CASE OF THE EPBD

In the context of the **Green Deal**, the European Commission has announced that the EU will soon be **raising its GHG emission reduction target for 2030** from 40% to 50 or 55% in view of achieving **climate neutrality in 2050**. In order to adapt the European legislative framework to these new targets, the Commission will publish during summer 2020 a **Comprehensive Plan announcing a series of revisions**.

EdEn (Equilibre des Energies) supports this increased ambition as well as the legislative revision process that will follow. In order to align the building sector with these climate objectives, we recommend that **the Energy Performance of Buildings Directive (EPBD) should also be included in the revision package**. This paper identifies the shortcomings of the current EPBD and the solutions that should be implemented to tackle them. In particular it highlights that:

- The current text of the EPBD is not in line with the EU's climate commitments as it does not include any mandatory GHG reduction provision despite the **building sector accounting for approximately 36% of GHG emissions in the EU** ;
- Relying solely on the energy performance criteria will not make it possible to achieve full building stock decarbonization;
- Measuring the energy performance of buildings in primary energy use hampers the decarbonisation of the building stock.

I. Relying solely on the energy performance criteria will not achieve full building stock decarbonisation

With the building sector accounting for approximately **36% of GHG emissions in the EU**, it is striking that the current **Energy Performance of Buildings Directive does not include any disposition directly targeting GHG emissions reduction**. In order for the EU to reach its decarbonisation targets for 2030 and 2050, both the carbon performance of buildings and their energy performance need to be measured and monitored.

With the development of clean electricity sources and of heat-pumps, **clean heating solutions are already available on the market**. The current EPBD however does not discriminate between the appliances that are both energy efficient and carbon efficient and those that are energy efficient and carbon emitters. Because the EPBD provisions rely solely on the energy performance criteria, they provide **no incentive for constructors to equip their new buildings with the cleanest heating equipment available**. This legislative shortcoming results in constructors equipping their buildings with fossil gas heating solutions even when they operate in the Member States with a high share of decarbonised power in which electric appliances are nearly carbon-neutral.

We call for a revision of the EPBD that would address this shortcoming and would encourage using the cleanest equipment available in new and renovated buildings. Concretely, we recommend that, alongside the energy consumption criteria, the revised EPBD should set a mandatory **GHG emission criteria** expressed in kilograms of CO₂ equivalent per m² per year (kg CO₂e/m²/year).

This GHG emission criteria would also make it possible **to impose and to monitor GHG emission reductions** in the building sector. Regulation (EU) 2019/631 on passenger cars sets progressively decreasing objectives for passenger cars emissions in 2022, 2027 and 2032. We recommend that the same approach should be adopted in the building sector with each Member State being required to set **progressive GHG emission reduction objectives** for their building stock by 2025, 2030 and 2035. These **roadmaps** should be consistent with their integrated national energy and climate plans to be notified to the Commission in accordance with Regulation (EU) 2018/1999.

II - Measuring the energy performance of buildings in primary energy use hampers decarbonisation

Along with the introduction of a GHG emission criteria, we recommend that the existing energy consumption criteria should be amended in order to **more effectively link energy savings to GHG emission reductions**. In the EPBD, the energy performance of buildings is measured in **primary energy consumption**. Primary energy does not account for the amount of energy that is actually used by consumers, which is measured in **final energy**. Primary energy is only a statistical indicator that was created to account for the fact that some energy sources can be used in their primary form, such as coal and gas, whereas others need to be transformed before they can be used, like electricity that is derived from wind power, solar power or uranium. Primary energy is based on a “**primary energy factor**” weighting on electricity consumption to account for the losses due to the transformation process by which electricity is produced.

This primary energy factor varies from country to country: in France it is set at 2.58, in Sweden it is set at 1.6. The Energy Efficiency Directive (EED) sets a default primary energy factor at 2.1. Concretely, this means that in a country using the default factor, 1 kWh of used power (final energy) is accounted as 2.1 kWh of primary energy. This creates a massive **disincentive against electricity use despite increased power use being the best way to further integrate renewables into energy systems and to contribute to decarbonising the European economy**.

The primary energy factor had a purpose when electricity was mainly produced from coal and gas as it was more efficient to directly use these energies in a boiler than to burn them in a power plant to produce electricity. But with the surge of electric renewables, whose primary energy sources cannot be used directly and are by nature clean and unlimited, the primary energy factor is now a major hindrance to the building stock decarbonisation of Member States with an increasing share of decarbonised power and therefore, a major hindrance to climate action. In order to accelerate the decarbonisation of the European building stock, **it is necessary to revise the EPBD and align it with the provisions of the EED so that it enables Member States to express the energy performance of buildings either in primary energy use or in final energy consumption**.

A revision of the EPBD is necessary in order to make it possible for Member States to electrify their building stock and heating systems, as the share of clean electricity production rapidly progresses. In this perspective EdEn recommends that the **EPBD should be included in the Comprehensive Plan to be adopted in summer 2020, and in the following legislative package in 2021**. Priority changes to the current text should include:

- the introduction of a **GHG emissions criteria and a roadmap for their reductions**;
- enabling Member States to **express the energy performance of buildings in final energy use in order to more effectively link energy savings to carbon savings**.

About EdEn

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STRATEGIC OBJECTIVES

- ✓ To promote technologies that help **reduce greenhouse gas emissions**
- ✓ To support the growing use of **renewable sources** in the energy mix
- ✓ To encourage **energy efficiency** improvements of buildings
- ✓ To stimulate the development of **clean mobility** technologies
- ✓ To consolidate **energy independence**, both at national and European levels



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