

## WHAT IS BEYOND **FIT FOR 55** FOR BUILDING POLICIES?

### Harmonisation of the EU building policy framework

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## About EPBD.wise

EPBD.wise is an EU-funded project, providing support to national policymakers to implement the Energy Performance of Buildings Directive (EPBD). Over the course of three years, project partners worked with public authorities in six European countries (Bulgaria, Greece, Hungary, Poland, Romania, and Ukraine) for the design, implementation, and evaluation of key EPBD provisions to ensure our buildings are in line with our climate goals. Starting with the six focus countries, EPBD.wise builds a replicable model to support the widespread implementation of these measures across Europe.

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## List of abbreviations and acronyms

<b>CSRD</b>	Corporate Sustainability Reporting Directive
<b>DHC</b>	District heating and cooling
<b>ETS2</b>	Emissions trading system for buildings, road transport and additional sectors
<b>EE1</b>	Energy efficiency first
<b>EED</b>	Energy Efficiency Directive
<b>EPBD</b>	Energy Performance of Buildings Directive
<b>EPC</b>	Energy performance certificate
<b>GHG</b>	Greenhouse gas
<b>NBRP</b>	National building renovation plan
<b>RED</b>	Renewable Energy Directive
<b>SCF</b>	Social Climate Fund
<b>SCP</b>	Social climate plan

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# EXECUTIVE SUMMARY

Five years into its release, the [Fit for 55 package](#) still represents the backbone of the European Union's energy and climate policy, aiming to reduce EU greenhouse gas (GHG) emissions by at least 55% by 2030 and put the EU on the path to achieve climate neutrality by 2050.

Its effective implementation is essential not only for the EU to reach these targets, but also to ensure energy security and strengthen competitiveness. Additionally, delivering the Fit for 55 package will smooth the transition to climate neutrality; delays and weak measures now will require a rapid and arguably unrealistic acceleration in the post-2030 decades.

Following the recent adoption of the [EU Climate Law](#), under which the EU will have to reduce GHG emissions by 90% by 2040 compared with 1990 levels, post-2030 legislation must be developed to match the increased level of ambition. The Fit for 55 package should represent the foundation upon which the next generation of energy and climate legislation will be built.

The Fit for 55 package was conceived as a coordinated and coherent set of laws covering all sectors of the EU's economy, with buildings representing one of the sectors with the highest potential for GHG emission reductions. This report analyses how the main legislative pillars of the Fit for 55 package – the [Energy Efficiency Directive](#) (EED), the [Renewable Energy Directive](#) (RED), the [Emission Trading System for buildings, road transport and additional sectors](#) (ETS2), the [Social Climate Fund Regulation](#) (SCF), as well as the [European Affordable Housing Plan](#) and the [EU Taxonomy](#) – interact with the implementation of the [Energy Performance of Buildings Directive](#) (EPBD).

To ensure that the EU has a robust and coherent base upon which to develop the post-2030 legislative framework, a systematic assessment of the Fit for 55 package is needed. Such an evaluation should go beyond looking into singular policies or files but instead examine how the various instruments interact in practice: whether they operate synergically, whether overlaps or gaps persist, and whether inconsistencies in objectives, timelines or governance structures risk undermining overall effectiveness. Identifying misalignments allows policymakers to address structural weaknesses early in the implementation phase or include them to be solved in the next policy cycle. Conducting this coherence review before designing the next legislative framework ensures that future policies are built on a solid, internally consistent framework rather than layering additional ambition onto an unresolved and fragmented base.

Coherent and well-coordinated implementation across Member States is essential for achieving a highly energy-efficient and climate-neutral building stock by 2050. Although the legislative framework is composed of multiple directives and instruments, these files follow an underlying logic and were designed to function synergistically. Ongoing simplification efforts, including initiatives such as the Omnibus package, should therefore be approached with careful consideration to preserve the internal logic of the framework and avoid unintended lock-in effects or weakened ambition. The implementation of the Fit for 55 package offers an opportunity to consolidate synergies, strengthen consistency and lay a robust foundation for the post-2030 energy and climate framework.

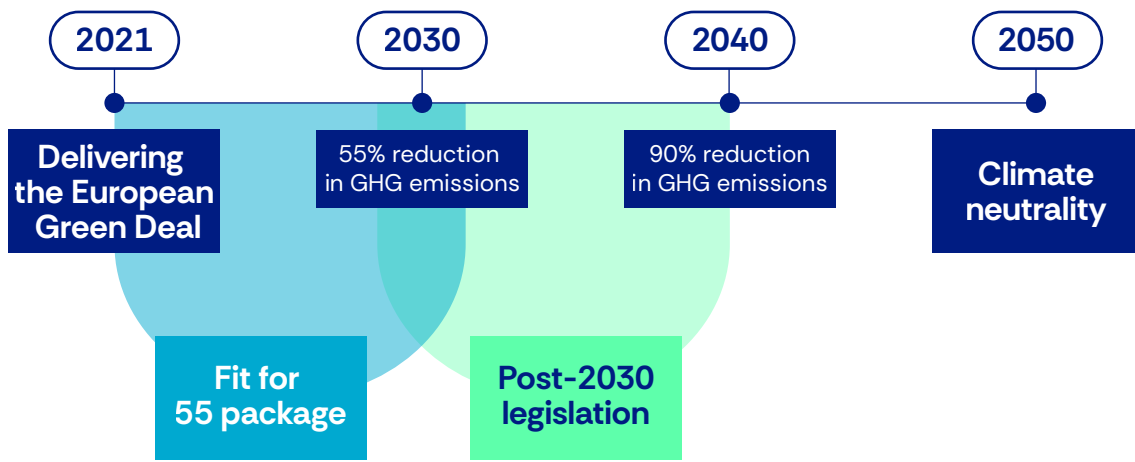


Figure 1. Overview of EU energy and climate targets timeline

## Key insights



### Aligning renovation policy with spatial planning

National, regional and local authorities should co-create national building renovation plans (NBRPs), trajectories of progressive building renovation and spatial planning instruments. Local and regional policymakers will play a pivotal role by mapping worst-performing buildings, identifying renewable acceleration areas, developing heating and cooling plans and tracking public-sector renovation obligations. Integrating these layers supports cost-effective and locally optimised renovation pathways.



### High-quality data systems

Interoperable databases on the energy performance of buildings, digital building logbooks and public-building inventories must be consolidated into a coherent national data ecosystem. Reliable energy performance certificates (EPCs), supported by harmonised methodologies and quality assurance, are crucial not only for NBRP monitoring but also for access to green loans and EU Taxonomy reporting, helping investors manage risks such as stranded assets.



### **Energy efficiency first**

Applying the 'energy efficiency first' (EE1) principle consistently across EPBD, EED, REDIII and ETS2 implementation ensures cost-effective demand reduction before supply-side measures.



### **Phasing out fossil fuels**

Fossil-fuel phase-out provisions across the EPBD, EED and RED guide households and public buildings towards clean heating technologies and efficient district heating and cooling systems.



### **Prioritising renewable energy deployment in the built environment**

The RED target of at least 49% renewables in buildings by 2030, combined with the EPBD solar mandate and zero-emission building (ZEB) requirements, accelerates on-site and nearby renewable deployment. Simplified permitting in renewable acceleration areas and incentives such as the EPC A+ class support decentralised energy generation and flexibility services.



### **Social fairness**

The SCF, EED and EPBD prioritise support for vulnerable and energy-poor households through targeted financial incentives, technical assistance, protection against rent increases and accessible renovation passports and one-stop shops. Harmonising definitions of energy poverty across planning instruments ensures consistent targeting.



### **Updating the EU Taxonomy to support the EPBD's objectives**

The EU Taxonomy criteria were adopted before the 2024 EPBD and remain based on nearly zero-energy building (nZEB) benchmarks. As zero-emission buildings become the standard for new buildings from 2030, the current Taxonomy thresholds risk falling behind forthcoming statutory requirements. Updating screening criteria to reflect ZEB performance levels and the EPBD definition of deep renovation is necessary to avoid regulatory inconsistencies and maintain incentives for decarbonisation-aligned investments.

# INTRODUCTION

The main purpose of this work is to ensure a coherent approach to policy design and implementation both within the Energy Performance of Buildings Directive (EPBD) and across the wider EU policy landscape offered by the Fit for 55 package, focusing on the decarbonisation of buildings. By examining the ambition, scope and practical implementation of the various legal provisions, this report identifies potential policy gaps, overlaps and lock-in effects, while proposing action points to enhance policy coherence. Ultimately, the analysis intends to support policymakers in shaping and implementing integrated policy packages that include not only EPBD measures but also building-related legislation emerging from the Fit for 55 package.

The assessment illustrates how the EPBD's key instruments interact with the implementation of other relevant legislation, including the **Energy Efficiency Directive (EED)**, the **Renewable Energy Directive (REDIII)**, the **Emission Trading System for buildings, road transport and additional sectors (ETS2)**, the **Social Climate Fund Regulation (SCF)**, the **EU Taxonomy for sustainable activities** and the **European Affordable Housing Plan**.

This analysis is centred around the key elements of the EPBD-wise project, which are also EPBD's key policy instruments, such as national building renovation plans (NBRPs), zero-emission buildings (ZEBs), minimum energy performance standards (MEPS) and national trajectories, renovation passports and energy performance certificates (EPCs).

A coherent and harmonised implementation of the Fit for 55 package will help achieve the following policy goals, which form the structure and main lenses of this policy analysis:

- **Energy efficiency first**
- **Aligning planning, infrastructure and data systems**
  - Phasing out fossil fuels in heating and cooling, with a focus on district heating and cooling systems
  - Integrated renovation planning
  - Aligning data collection and monitoring
- **Renewable energy in buildings**
  - Decentralisation and democratisation of energy supply
- **Alleviating energy poverty and protecting vulnerable households**
  - Renovations for increasing good quality and affordable housing
- **Leveraging private financing.**

This report is intended for policymakers at local, regional and national levels responsible for implementing EU building policies, as well as for EU-level decision-makers seeking to ensure a coherent implementation of the Fit for 55 package and support progress towards the EU's climate, energy and social objectives for 2030 and beyond.

<sup>1</sup>The latter two topics – energy poverty alleviation and leveraging private financing – motivated the analysis of policy initiatives beyond Fit for 55, by including the European Affordable Housing Plan and the EU Taxonomy.

## The Fit for 55 package

Under the [European Climate Law](#) (Regulation (EU) 2021/1119), the European Union has committed to reducing its net greenhouse gas (GHG) emissions by at least 55% by 2030. The Fit for 55 package translates this commitment into a comprehensive set of legislative actions designed to make every sector of the EU economy capable of meeting this target. It consists of a series of interconnected proposals that strengthen eight existing pieces of legislation and introduce five new initiatives, covering climate, energy, buildings, industry and transport. Together, these measures are intended to form a coherent policy architecture to deliver rapid emissions reductions while ensuring affordability, competitiveness and social fairness.

In December 2025, the EU agreed on a legally binding target to reduce its net GHG emissions by 90% by 2040, compared to 1990 levels. Against this updated target, this report looks beyond the Fit for 55 timeline of 2030 and assesses whether the measures currently in place are sufficient to put the building sector on a credible path to full decarbonisation in 2050. The report includes a comprehensive assessment of the Fit for 55 buildings-related files to identify potential inconsistencies and provides guidance to support harmonised, ambitious and effective implementation of the legislation.



Figure 2. Overview of the Fit for 55 package (Source: [European Commission, 2021](#))

### Energy Performance of Buildings Directive

The Energy Performance of Buildings Directive, [Directive \(EU\) 2024/1275](#), is a key component of the Fit for 55 package and the main EU file overseeing the building sector. It proposes specific measures and policy instruments to accelerate the rate of building renovations, contributing to both energy efficiency and renewable energy goals, as well as to GHG emissions reductions in the buildings sector. It works in synergy with other EU climate and energy policies that cover provisions on building decarbonisation, including the EED, the RED, ETS2 and the SCF Regulation.

### Energy Efficiency Directive

The revision of the Energy Efficiency Directive, [Directive \(EU\) 2023/1791](#), has raised the level of ambition of the energy efficiency targets at the EU level and made them binding. This should lead to an 11.7% reduction in final energy consumption by 2030, compared to the baseline projections. Member States are now legally required to prioritise energy efficiency in policymaking, planning and major investments, giving the 'energy efficiency first' (EE1) principle substantial legal standing for the first time. EU countries are required to achieve an average annual energy savings rate of 1.49% from 2024 to 2030, up from the previous requirement of 0.8%, driving energy savings in critical sectors such as buildings, industry and transport. With a formal definition for energy poverty included in the legislation, EU countries are compelled to prioritise energy efficiency improvements for vulnerable consumers, low-income households and individuals in social housing, including within the scope of the energy savings obligation. The EED further strengthened the exemplary role to be played by the public sector in enhancing energy efficiency by introducing an annual energy consumption reduction target of 1.9% for the public sector as a whole. Moreover, an annual 3% building renovation obligation is being extended to all levels of public administration.

### Renewable Energy Directive

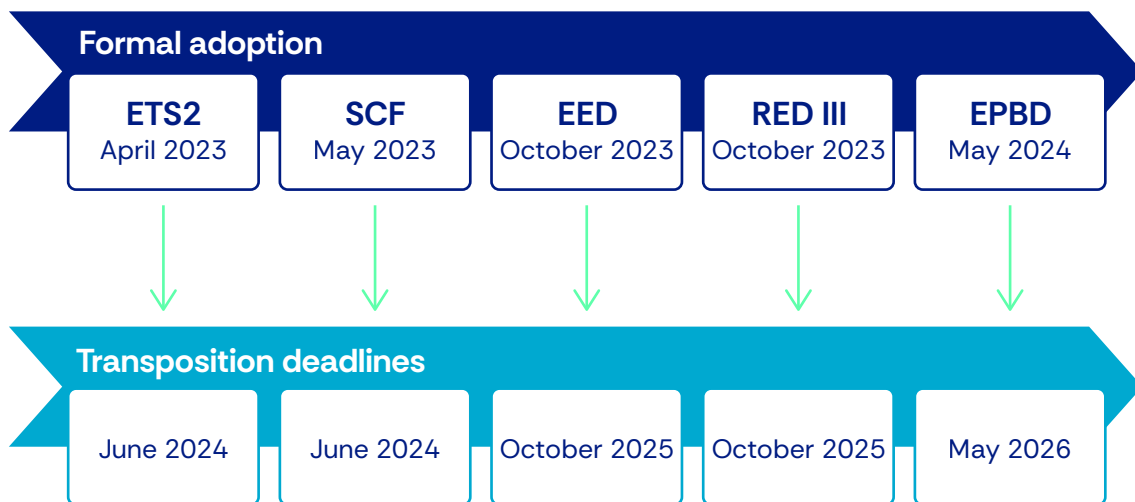
To reach the 2030 target, the revised Renewable Energy Directive (REDIII), [Directive \(EU\) 2023/2413](#), proposed to increase the overall binding target for the proportion of renewables in the EU energy mix from the previous 32% to 42.5%. This will be complemented by indicative national contributions, showing what each Member State should contribute to reach the collective target. Besides the overall binding target of at least 42.5% renewable energy in the EU's energy mix by 2030, REDIII strengthened annual renewables targets for the heating and cooling sectors and for renewable energy used in district heating systems. It also introduced a specific non-binding renewable energy benchmark of 49% for energy consumption in buildings by 2030 to complement EU buildings legislation.

### ETS2 and Social Climate Fund

A cornerstone of the Fit for 55 package was to build on the achievements of the EU Emission Trading System by strengthening it with the introduction of the Emission Trading System for buildings, road transport and additional services (ETS2) ([Directive \(EU\) 2023/959](#)). ETS2 will apply a carbon price to fuels used in buildings and road transport, with the revenues generated funding the newly created Social Climate Fund ([Regulation \(EU\) 2023/955](#)) to support European citizens most affected by or at risk of energy or mobility poverty.

Fossil fuel suppliers are likely to transfer the incurred costs to final energy users, so the SCF aims to partially alleviate the burden on final users and support vulnerable households. Social climate plans (SCPs) are a key component of the SCF Regulation, designed to help Member States mitigate the social and distributional impacts of ETS2. The SCP should outline how each Member State will utilise SCF funding (running from 2026 to 2032) to support vulnerable households, microenterprises and transport users affected by higher carbon pricing.

The first trading of allowances was supposed to start in 2027, but in November 2025, the European Parliament and the Council formally delayed the application of ETS2 by one year. Member States were supposed to submit to their SCPs to the European Commission by 31 June 2025. Key elements of SCPs are the identification of vulnerable groups most affected by ETS2, the design of support measures (both temporary direct income support and structural investments to improve buildings), and indicators to track progress and effectiveness of measures.



**Figure 3.** Timeline of the official adoption and transposition deadlines for the Fit for 55 files

## Other directives and initiatives

While this analysis primarily focuses on the building-related legislation from the Fit for 55 package, particular attention is given to key complementary policy goals, including alleviating energy poverty, protecting vulnerable households and enabling private financing. To this end, the assessment deliberately extends beyond this framework to include the EU Taxonomy Regulation and the newly published European Affordable Housing Plan, ensuring that EPBD implementation supports both sustainable investment and housing affordability within a socially fair transition.

The EU Taxonomy plays a crucial role in steering private capital towards sustainable construction and renovation, shaping the investment conditions under which Fit for 55 targets are implemented. At the same time, the European Affordable Housing Plan situates renovation within a wider housing policy framework, emphasising affordability, accessibility and protection of vulnerable groups. Including these instruments therefore captures the financial and social dimensions of the building decarbonisation transition – dimensions that will become increasingly central as the EU moves from the 2030 targets towards the more ambitious 2040 climate objective.

## The European Affordable Housing Plan

The European Commission published in December 2025 its first-ever [Affordable Housing Plan](#), addressing one of the most pressing needs of European citizens: access to affordable, sustainable and good-quality housing. The plan presents a series of concrete actions to tackle the structural causes of the housing crisis. It aims to increase access to housing, trigger investments and reforms, and support the people and the areas most affected.

The plan emphasises that affordability should go hand in hand with sustainability and quality. Energy-efficient, resilient homes that are built with the lowest possible carbon footprint reduce maintenance and utility costs while enhancing long-term value, while sufficient quality is essential to deliver healthy, safe and dignified living conditions.

A central priority of the plan is maximising the existing building stock, specifically by repurposing the 20% of dwellings that currently sit vacant and implementing a housing simplification package in 2027 to cut through the red tape of permitting and zoning. Maximising the efficient use of the existing building stock – avoiding unnecessary demolition and waste – should be a priority, alongside new sustainable constructions. This includes renovating inefficient buildings, repurposing them and bringing vacant properties back into use.

Additionally, to increase the housing supply, the plan introduces the [European Strategy for Housing Construction](#) and a Construction Services Act<sup>2</sup> aimed at boosting industrial productivity, scaling up innovation in construction, and addressing a severe shortage of skilled labour. To mobilise the estimated €150 billion in annual investment required to meet demand, the Commission and the European Investment Bank are launching a [Pan-European Investment Platform](#) in 2026 to pool public and private resources and share innovative financing models. This also includes the revision of state aid rules ([Commission Decision \(EU\) 2025/2630](#)), which will allow Member States to provide financial support for affordable housing for low- and middle-income groups without prior Commission notification. This financial push is reinforced by the Social Climate Fund and the 'energy efficiency first' principle.

## EU Taxonomy for sustainable activities

The EU Taxonomy is a classification system designed to help companies and investors identify which economic activities can be considered environmentally sustainable and aligned with a net-zero trajectory by 2050. To qualify, an activity must make a substantial contribution to at least one of the EU's climate or environmental objectives, do no significant harm to the others, and comply with minimum social safeguards. As a transparency tool, the taxonomy allows investors and regulators to compare companies and financial products based on how much of their activity aligns with environmental goals. The [EU Taxonomy Regulation](#) entered into force on 12 July 2020, aiming to align financing with decarbonisation goals. Financial institutions can use it to design credible green products, while companies covered by the [Non-Financial Reporting Directive \(NFRD, 2014/95/EU\)](#) began reporting Taxonomy-related information for the first time for the 2021 fiscal year.

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<sup>2</sup>In January 2026, the European Commission opened a public consultation on the future Construction Services Act.

The EU Taxonomy sets the regulatory conditions for an economic activity to be considered environmentally sustainable. The EU taxonomy covers six environmental objectives: (1) Climate change mitigation; (2) Climate change adaptation; (3) Sustainable use and protection of water and marine resources; (4) Transition to a circular economy; (5) Pollution prevention and control; (6) Protection and restoration of biodiversity and ecosystems.

These objectives are applicable to multiple sectors, including construction and real estate. Currently, the climate mitigation and climate adaptation objectives are clearly formulated. Delegated acts have been adopted to establish the technical screening criteria for climate change mitigation and adaptation, such as the Delegated Act Climate, [Commission Delegated Regulation \(EU\) 2021/2139](#), establishing the technical screening criteria for determining the conditions under which an economic activity qualifies as contributing substantially to climate change mitigation or climate change adaptation.

Initially, companies with over 1,000 employees and either €50 million in net turnover or €25 million in balance sheet were obligated to report under the Corporate Sustainability Reporting Directive (CSRD),<sup>3</sup> with voluntary reporting encouraged for smaller firms. The [Omnibus I package](#) (COM(2025)80), adopted on 26 February 2025, removed around 80% of companies from the scope of the CSRD and EU Taxonomy. Instead, CSRD reporting obligations would cover only companies with more than 1,000 employees and at least €450 million in net turnover. It postponed by two years (until 2028) the reporting requirements for companies currently in scope.<sup>4</sup> The Omnibus package introduced simplifications to reporting to reduce the bureaucratic burden, limiting the amount of information that may be requested from SMEs as part of the value chain.

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<sup>3</sup> The CSRD and the EU Taxonomy Regulation operate as complementary pillars of the EU sustainable finance framework. While the EU Taxonomy establishes the criteria for determining whether an economic activity can be considered environmentally sustainable, the CSRD requires companies to disclose the extent to which their activities and investments are aligned with those criteria, increasing transparency for investors and financial markets.

<sup>4</sup> [https://ec.europa.eu/commission/presscorner/detail/en/ip\\_25\\_614](https://ec.europa.eu/commission/presscorner/detail/en/ip_25_614)

# ENERGY EFFICIENCY FIRST

Both EPBD and REDIII refer to [Regulation \(EU\) 2018/1999](#) for the definition of the energy efficiency first (EE1) principle, thus the definition is consistent for these directives:



## Article 2 (18)

*'energy efficiency first' means taking utmost account in energy planning, and in policy and investment decisions, of alternative cost-efficient energy efficiency measures to make energy demand and energy supply more efficient, in particular by means of cost-effective end-use energy savings, demand response initiatives and more efficient conversion, transmission and distribution of energy, whilst still achieving the objectives of those decisions;*



## Recital (64)

*Member States should use the energy efficiency first principle, which means to consider, before taking energy planning, policy and investment decisions, whether cost-efficient, technically, economically and environmentally sound alternative energy efficiency measures could replace in whole or in part the envisaged planning, policy and investment measures, whilst still achieving the objectives of the respective decisions. This includes, in particular, the treatment of energy efficiency as a crucial element and a key consideration in future investment decisions on energy infrastructure in the Union. Such cost-efficient alternatives include measures to make energy demand and energy supply more efficient, in particular by means of cost-effective end-use energy savings, demand response initiatives and more efficient conversion, transmission and distribution of energy. Member States should also encourage the spread of that principle in regional and local government, as well as in the private sector.*

According to this definition, the **EE1 principle should guide planning, policy design and investment decisions across both the public and private sectors**. The EPBD explicitly refers to EE1 in connection with the NBRP (see Table 1), but its practical application should be embedded more firmly in core provisions such as ZEB requirements, renovation passports and EPC recommendations , ensuring that reducing energy demand is prioritised before other measures. For effective implementation, **NBRPs should reflect and apply the EE1 principle within all the measures and investments planned**.

In the EED, by contrast, EE1 is mainly operationalised for major investments above €100 million in both energy and non-energy sectors, including buildings (see Table 1). This applies to a scale of investments that differs substantially from the energy-efficiency actions typically driven by the EPBD. However, the **EED mentions that municipal heating and cooling plans should be compliant with the EE1 principle**.

**Neither ETS2 nor the SCF explicitly mentions the EE1 principle, though both include references to energy efficiency and demand-reduction measures in buildings as eligible uses of ETS2 revenues**. However, energy efficiency is listed alongside other options, such as renewable energy integration, without giving explicit priority to reducing energy demand first.

**Table 1.** Overview of the 'energy efficiency first' principle throughout the Fit for 55 package

EPBD	REDIII	EED	ETS2/ SCF
<p><b>Recitals</b></p> <p>(38) The 'energy efficiency first' principle is an overarching principle that should be taken into account <b>across all sectors, going beyond the energy system</b>, at all levels. It is <b>defined in Article 2, point (18), of Regulation (EU) 2018/1999</b> as meaning to take utmost account in <b>energy planning, and in policy and investment decisions</b>, of alternative cost-efficient energy efficiency measures to make energy demand and energy supply more efficient, in particular by means of cost-effective end-use energy savings, demand-response initiatives and more efficient conversion, transmission and distribution of energy, whilst still achieving the objectives of those decisions. The principle is therefore equally relevant with regard to improving the energy performance of buildings and is highlighted in the Renovation Wave strategy as one of the key principles for building renovation towards 2030 and 2050. As set out in Commission Recommendation (EU) 2021/1749 (18), improved <b>health and well-being</b> are among the major co-benefits of applying the 'energy efficiency first' principle to improve the energy performance of buildings.</p> <p><b>Recitals</b></p> <p>(37) To achieve a highly energy-efficient and decarbonised building stock and the transformation of existing buildings into zero-emission buildings by 2050, Member States should establish NBRPs which replace the long-term renovation strategies provided for in Article 2a of Directive 2010/31/EU and which are to become an even stronger, fully operational planning tool for Member States, in line with the '<b>energy efficiency first</b>' principle, with a stronger focus on financing and ensuring that appropriately skilled workers are available for carrying out building renovations.</p>	<p><b>Article 2</b></p> <p><b>Definitions</b></p> <p>(22b) 'energy efficiency first' means energy efficiency first as defined in <b>Article 2, point (18), of Regulation (EU) 2018/1999</b>.</p> <p><b>Article 23</b></p> <p><b>Mainstreaming renewable energy in heating and cooling</b></p> <p>1b. Member States shall carry out an assessment of their potential of energy from renewable sources and of the use of waste heat and cold in the heating and cooling sector including, where appropriate, an analysis of areas suitable for their deployment at low ecological risk and of the potential for small-scale household projects. ... That assessment shall be in accordance with the <b>energy efficiency first principle</b> and part of the integrated national energy and climate plans submitted pursuant to Articles 3 and 14 of Regulation (EU) 2018/1999.</p>	<p><b>Article 3</b></p> <p><b>Energy efficiency first principle</b></p> <p>In accordance with the energy efficiency first principle, Member States shall ensure that energy efficiency solutions, including demand-side resources and system flexibilities, are assessed in planning, policy and major investment decisions of a value of more than <b>EUR 100 000 000</b> each or <b>EUR 175 000 000</b> for transport infrastructure projects, relating to the following sectors:</p> <p>(a) energy systems; and</p> <p>(b) non-energy sectors, where those sectors have an impact on energy consumption and <b>energy efficiency such as buildings</b>, transport, water, information and communications technology (ICT), agriculture and financial sectors.</p> <p><b>Article 25</b></p> <p><b>Heating and cooling assessment and planning</b></p> <p>(b) be compliant with the <b>energy efficiency first principle</b>;</p>	<p><b>SCF Recitals</b></p> <p>(14) Therefore, the support under the Fund to the buildings sector should aim to improve <b>energy efficiency</b>, leading to a reduction in energy consumption for each household that would be visible in terms of the money saved and, as a result, would provide one means of combating energy poverty.</p> <p>(17) First, they should provide vulnerable households, vulnerable micro- enterprises and vulnerable transport users with the necessary resources to finance and carry out <b>investments in energy efficiency</b>, decarbonisation of heating and cooling, in zero- and low-emission vehicles and mobility, including through vouchers, subsidies or zero-interest loans.</p> <p><b>ETS2</b></p> <p><b>Article 30d</b></p> <p><b>Auctioning of allowances for the activity referred to in Annex III</b></p> <p>6a) measures intended to contribute to the decarbonisation of heating and cooling of buildings or to the <b>reduction of the energy needs of buildings</b>, including the integration of renewable energies and related measures in accordance with Article 7(11) and Articles 12 and 20 of Directive 2012/27/EU, as well as measures to provide financial support for low-income households in worst-performing buildings.</p>

# ALIGNING PLANNING, INFRASTRUCTURE AND DATA SYSTEMS

## Phasing out fossil fuels in heating and cooling, with a focus on district heating and cooling

The EED plays a central role in the decarbonisation of heating and cooling, introducing key obligations to phase out fossil fuels. In particular, Article 25 requires all **municipalities with more than 45,000 inhabitants to develop local heating and cooling plans (LHCPs)**, ensuring that local authorities map demand, supply and decarbonisation potentials. Annex X of the EED further supports this transition by defining sustainable alternatives to fossil fuel systems, including heat pumps, high-efficiency cogeneration and district heating and cooling (DHC). The latter also plays an important role in EPBD provisions related to ZEBs and renovation passports, as efficient DHC is one of the eligible energy supply sources for a ZEB. The **definition of efficient DHC** has been updated in the EED, with systems required to reach 50% renewable energy by 2027 and progressively increase to 100% renewable energy by 2050, making DHC a key enabler of fossil fuel phase-out.

The EPBD reinforces this direction by **not allowing financial incentives for standalone fossil fuel boilers from 2025** onwards, redirecting investments towards clean heating solutions. Complementary provisions in REDIII, the SCF, and the EPBD's renovation passport framework aim to provide households with **financial support, technical assistance and clear information** on the planned phase-out of fossil fuels and on the available alternatives, including efficient DHC.

**Table 2.** Phasing out fossil fuels throughout the Fit for 55 package

EPBD	REDIII	EED	ETS2/ SCF
<p><b>Recitals</b></p> <p>(14) They should strive to <b>phase out stand-alone boilers powered by fossil fuels</b>, and, as a first step, they should not provide, <b>from 2025, financial incentives</b> for the installation of stand-alone boilers powered by fossil fuels.</p> <p><b>ANNEX II</b></p> <p><b>Mandatory indicators to be reported by Member States in NBRPs</b></p> <p>(f) the decarbonisation of heating and cooling, including through district heating and cooling networks, and the phasing out of fossil fuels in heating and cooling with a view to a <b>complete phasing out of fossil fuel boilers by 2040</b>.</p> <p><b>ANNEX VIII</b></p> <p><b>Requirements for renovation passports</b></p> <p>(mandatory)</p> <p>(c) information on relevant national requirements such as minimum energy performance requirements for buildings, minimum energy performance standards and rules in the Member State on the <b>phasing out of fossil-fuel used in buildings for heating and cooling</b>, including application dates;</p>	<p><b>Article 15a</b></p> <p><b>Mainstreaming renewable energy in buildings</b></p> <p>4. Member States shall promote the use of <b>renewable heating and cooling systems</b> and equipment and may promote innovative technologies, such as <b>smart and renewable-based electrified heating and cooling systems and equipment</b>, complemented, where applicable, with smart management of energy consumption in buildings.</p> <p><b>Article 23</b></p> <p><b>Mainstreaming renewable energy in heating and cooling</b></p> <p>1b. Member States shall carry out an assessment of their potential of energy from renewable sources and of the use of waste heat and cold in the heating and cooling sector including, where appropriate, an analysis of areas suitable for their deployment at low ecological risk and of the potential for small-scale household projects. ... That assessment shall be in accordance with the energy efficiency first principle and part of the integrated national energy and climate plans submitted pursuant to Articles 3 and 14 of Regulation (EU) 2018/1999.</p>	<p><b>Article 25</b></p> <p><b>Heating and cooling assessment and planning</b></p> <p>6. Member States shall ensure that regional and local authorities prepare <b>local heating and cooling plans</b> at least in municipalities having a total population higher than 45 000. Those plans should at least:</p> <p>(k) aim to <b>replace old and inefficient heating and cooling appliances in public bodies</b> with highly efficient alternatives with the aim of phasing out fossil fuels.</p> <p><b>ANNEX X</b></p> <p><b>Potential for efficiency in heating and cooling</b></p> <p>The following technologies should be considered:</p> <ul style="list-style-type: none"> <li>(a) industrial waste heat and cold;</li> <li>(b) waste incineration;</li> <li>(c) high efficiency cogeneration;</li> <li>(d) renewable energy sources, such as geothermal, solar thermal and biomass, other than those used for high efficiency cogeneration;</li> <li>(e) heat pumps;</li> <li>(f) reducing heat and cold losses from existing district networks;</li> <li>(g) district heating and cooling;</li> </ul>	<p><b>SCF</b></p> <p><b>Article 8</b></p> <p><b>Eligible measures and investments to be included in the Social Climate Plans</b></p> <p>(c) contribute to the decarbonisation, such as through electrification, of heating and cooling of, and cooking in, buildings by providing access to affordable and energy-efficient systems, and by integrating renewable energy generation and storage, including through renewable energy communities, citizen energy communities and other active customers to promote the uptake of the self-consumption of renewable energy...</p> <p>(d) provide targeted, accessible and affordable information, education, awareness and advice on cost-effective measures and investments, available support for building renovations and energy efficiency, as well as sustainable and affordable mobility and transport alternatives;</p>

**Table 2.** Phasing out fossil fuels throughout the Fit for 55 package (cont.)

EPBD	REDIII	EED	ETS2/ SCF
<p><b>ANNEX VIII</b></p> <p><b>Requirements for renovation passports</b> (mandatory)</p> <p>(f) information about a potential connection to an efficient district heating and cooling system;</p> <p><b>Article 11</b></p> <p><b>Zero-emission buildings</b></p> <p>7. Member States shall ensure that the total annual primary energy use of a new or renovated zero-emission building is covered by:</p> <p>(c) energy from an efficient district heating and cooling system in accordance with Article 26<sup>Ⓒ</sup> of Directive (EU) 2023/1791;</p>	<p><b>Article 18</b></p> <p><b>Information and training</b></p> <p>5. Member States shall ensure that guidance is made available to all relevant actors, in particular to planners and architects so that they are able properly to consider the optimal combination of energy from renewable sources, of high-efficiency technologies, and of district heating and cooling when planning, designing, building and renovating industrial, commercial or residential areas.</p>	<p><b>Article 26</b></p> <p><b>Heating and cooling supply</b></p> <p><b>an efficient district heating and cooling system shall meet the following criteria:</b></p> <p>(a) until 31 December <b>2027</b>, a system using at least <b>50 % renewable energy</b>, 50 % waste heat, 75 % cogenerated heat or 50 % of a combination of such energy and heat;</p> <p>(d) from 1 January <b>2040</b>, a system using at least <b>75 % renewable energy</b>, 75 % waste heat or 75 % renewable energy and waste heat, or a system using at least 95 % renewable energy, waste heat and high-efficiency cogenerated heat and in addition the total share of renewable energy or waste heat is at least 35%;</p> <p>(f) from 1 January <b>2050</b>, a system using <b>only renewable</b> energy, only waste heat, or only a combination of renewable energy and waste heat.</p>	<p><b>ETS2 Recitals</b></p> <p>(73) In order to further incentivise investments required for the decarbonisation of district heating and to address social aspects related to high energy prices and the high greenhouse gas emission intensity of district heating installations, in Member States with a very high share of emissions from district heating in comparison with the size of the economy, operators should be able to apply for additional transitional free allocation for district heating installations and the additional value of the free allocation should be invested to significantly reduce emissions before 2030. To ensure those reductions take place, the additional transitional free allocation should be conditional on investments made and on emission reductions achieved as laid down in climate-neutrality plans to be drawn up by operators for their relevant installations.</p>

## Integrated renovation planning

The success of the NBRP depends on a robust multilevel governance framework capable of aligning national strategy with local realities. National and regional authorities play a central role in coordinating and aggregating these inputs, supporting municipalities with limited capacity and ensuring coherence across regions. **At the local level in particular, authorities will need to develop an integrated spatial and strategic mapping exercise that overlays several planning layers**, including:

- Mapping worst-performing buildings to support the implementation of MEPS and the national trajectory for progressive renovation (EPBD)
- Developing local heating and cooling plans (EED)
- Mapping public buildings subject to the 3% annual renovation obligation (EED)
- Identifying renewable acceleration areas (REDIII).

The NBRP serves as the overarching national framework that aligns policy objectives with regional and local planning tools, while incorporating bottom-up input from local authorities and stakeholders.

### Integration of NBRP with the 3% annual renovation obligation for public buildings (EED)

Article 6(1) of the EED requires Member States to renovate each year at least 3% of the total floor area of public buildings exceeding 250m<sup>2</sup>, ensuring that these buildings meet nearly zero-energy building (nZEB) or ZEB performance levels. Article 5(9) adds that Member States should encourage modernisation of public buildings by replacing outdated heating systems. This obligation strengthens the exemplary role of the public sector and supports the renovation market as a whole. Energy renovations of public buildings with a non-residential use could contribute to both the achievement of the MEPS thresholds and the annual renovation target established under Article 6 of the EED, provided that such renovations meet the requirements set in both pieces of legislation.

The NBRP plays a central role in structuring and coordinating national compliance with these requirements. It provides the framework for defining the public-sector building stock, planning renovation trajectories and ensuring that the achievement of the 3% annual obligation is coherent with national targets for energy efficiency and emissions reduction. Additionally, as the EPBD requires all new public buildings to achieve the ZEB standard by 2028, the NBRP should ensure that public-sector renovations contribute meaningfully to the broader transformation of the building stock. This part of the NBRP should therefore build on the public buildings inventory required by EED Article 6. The NBRP also strengthens monitoring processes so that national and regional authorities can reliably track progress and adapt renovation pathways where needed.

### Interaction of NBRP with renewable acceleration areas (REDIII)

REDIII requires Member States to identify suitable areas for renewable energy deployment through coordinated spatial planning and assessment of available land, energy potential and infrastructure needs. Priority must be given to artificial and built surfaces, such as rooftops, façades, transport infrastructure and parking areas, alongside degraded land not suitable for agriculture. This identification process supports national contributions to the EU's 2030 renewable energy target.

A key outcome of this exercise is the designation of **renewable acceleration areas**, where simplified and faster permitting procedures apply to facilitate rapid deployment of renewable energy installations. The NBRP can support this process by recognising these areas as strategic locations where building renovation and renewable energy deployment can be most effectively combined. Ensuring coherence between the spatial distribution of renovation needs, energy demand and renewable generation potential will support the integration of energy-from-renewables solutions, such as rooftop solar, into renovation strategies. This alignment ensures that the roll-out of renewable technologies supports and reinforces the decarbonisation of the national building stock in a manner that is both socially inclusive and nature positive.

### **Coordination of NBRP with local heating and cooling plans (EED)**

The EED also introduces clear criteria for efficient district heating and cooling systems (Article 26), establishing a progressive decarbonisation pathway that leads to fossil fuel phase-out by 2050. EED Article 25(6) incentivises coordination between NBRPs and local heating and cooling plans, which should be developed in municipalities with populations over 45,000 and in line with the energy efficiency first principle. This would set a strong precedent for bottom-up governance and allow the NBRP to be aligned with local realities. LHCPs tend to focus more on infrastructure and clean technologies, rather than renovations, which remain the primary focus of the NBRP. Nonetheless, **Member States can leverage LHCPs as a tool to progressively reduce the use of fossil fuels in buildings**, which is one of the objectives of the NBRP too.

While Member States should support regional and local authorities in drafting their LHCPs, notably by providing national comprehensive heating and cooling assessments and granting access to the national databases on energy performance of buildings (EPBD Article 22), this process could be used in a two-way direction. On one hand, lower governance levels can help **gather data and provide input and feedback in drafting the NBRP, especially as the EPBD explicitly requires including local and regional stakeholders in the public consultation process**. On the other hand, **stakeholders such as energy communities and consumer-led initiatives should be seen as key contributors to both LHCPs and NBRPs**. A tailored input gathering and consultation method could enable these stakeholders to contribute to both plans to maximise effectiveness and synergies.

Article 25(6) of the EED also mentions that the LHCP should include an analysis of heating and cooling appliances and systems in local building stocks, considering the area-specific potential for energy efficiency measures and addressing the worst-performing buildings as well as the needs of vulnerable households.

The NBRP (with a national perspective) could draw upon some data and indicators from the national comprehensive heating and cooling assessment, which includes data on technical building systems and heating and cooling infrastructure. The NBRP should also use some content developed for the LHCPs (with a local perspective), such as *“an analysis of heating and cooling appliances and systems in local building stocks, taking into account the area-specific potentials for energy efficiency measures and addressing the worst-performing buildings and the needs of vulnerable households”* and *“how to finance the implementation of policies and measures and identify financial mechanisms allowing consumers to shift to renewable heating and cooling”*. Equally, as NBRPs are envisioned as comprehensive planning instruments, they should also inform the LHCPs through a positive feedback loop highlighting the renovation requirements for non-residential buildings.

### Synergies of NBRPs with social climate plans

Under the SCF Regulation, each Member State should have submitted its social climate plan by 30 June 2025 in order to access support from the Social Climate Fund. Initially planned to run from 2026 to 2032, the Fund was supposed to provide €86.7 billion, financed through revenues from ETS2 and national contributions; however, the introduction of ETS2 has been delayed by one year and is envisioned to start in 2027. SCPs should identify vulnerable households, microenterprises and transport users most affected by carbon pricing and define measures to mitigate these impacts, including both temporary income support and long-term structural investments. Under the EPBD framework (Article 9), Member States also need to provide an overview of the building stock in their NBRP and identify the worst-performing buildings, which are disproportionately occupied by vulnerable households.

**The NBRP must ensure strong alignment with SCPs to ensure that renovation policies adequately address the needs of vulnerable groups.** This requires coherence between renovation pathways, the design of financial instruments and the social measures proposed in the SCP. Data gathered through SCPs can help refine the identification of worst-performing buildings and vulnerable households, and support targeted renovation programmes, while structural investments financed by the SCF should reinforce national renovation objectives. **This alignment ensures that the decarbonisation of the building stock advances in a socially fair manner, with adequate protection and support for those most exposed to energy poverty and high energy prices.**

**Table 3.** Integrated renovation planning throughout the Fit for 55 package

EPBD	REDIII	EED	ETS2
<p><b>Article 9</b></p> <p><b>Minimum energy performance standards for non-residential buildings and trajectories for progressive renovation of the residential building stock</b></p> <p>The minimum energy performance standards shall ensure, at least, that all non-residential buildings are below: (a) the 16 % threshold from 2030; and (b) the 26 % threshold from 2033.</p> <p>Member States shall ensure that the average primary energy use in kWh/(m<sup>2</sup>.y) of the entire residential building stock:</p> <p>(a) decreases by at least 16 % compared to 2020 by 2030; (b) decreases by at least 20–22 % compared to 2020 by 2035; (c) by 2040, and every 5 years thereafter, is equivalent to, or lower than the nationally determined value derived from a progressive decrease in the average primary energy use from 2030 to 2050, in line with the transformation of the residential building stock into a zero-emission building stock,</p> <p>Member States shall ensure that at least 55 % of the decrease in the average primary energy use referred to in the third subparagraph is achieved through the <b>renovation of the 43% worst-performing residential buildings</b>.</p>	<p><b>Article 15c</b></p> <p><b>Renewables acceleration areas</b></p> <p>1. By 27 months after the entry into force, Member States shall ensure that competent authorities adopt a plan or plans designating, as a sub-set of the areas referred to in Article 15b (1), renewables acceleration areas for one or more types of renewable energy sources.</p> <p>(i) give priority to artificial and built surfaces, such as rooftops and facades of buildings, transport infrastructure and their direct surroundings, parking areas, farms, waste sites, industrial sites, mines, artificial inland water bodies, lakes or reservoirs, and, where appropriate, urban wastewater treatment sites, as well as degraded land not usable for agriculture;</p>	<p><b>Article 6</b></p> <p><b>Exemplary role of public bodies' buildings</b></p> <p>Member States shall ensure that at least 3% of the total floor area of heated and/or cooled buildings that are owned by public bodies is renovated each year to be transformed into at least nearly zero-energy buildings or zero-emission buildings.</p> <p><b>Article 25</b></p> <p><b>Heating and cooling assessment and planning</b></p> <p>Member States shall ensure that regional and local authorities prepare local <b>heating and cooling</b> plans at least in municipalities having a total population higher than 45.000.</p>	<p><b>Article 2</b></p> <p>(h) measures intended to improve energy efficiency, district heating systems and insulation, to support efficient and renewable heating and cooling systems, or to support the deep and staged deep renovation of buildings in accordance with Directive 2010/31/EU of the European Parliament and of the Council (*), starting with the renovation of the worst-performing buildings.</p> <p><b>Article 3</b></p> <p><b>Objectives</b></p> <p>3. The specific objectives of the Fund shall be to support vulnerable households, vulnerable micro-enterprises and vulnerable transport users, through temporary direct income support and through measures and investments intended to <b>increase the energy efficiency of buildings, decarbonisation of heating and cooling of buildings, including through the integration in buildings of renewable energy generation and storage</b>, and to grant improved access to zero- and low-emission mobility and transport.</p>



Figure 4. Timeline of key milestones and strategic planning documents within Fit for 55

## Aligning data collection and monitoring

Improving data collection and management are prerequisites needed across all legislations (EPBD, EED, RED and SCF), helping national policymakers understand the actual condition of their building stock and design effective and better targeted building policies. At the same time, robust and harmonised data systems are essential for establishing a meaningful monitoring, reporting and evaluation framework<sup>5</sup> capable of assessing whether policy instruments are delivering their intended impact. Effective policy design and renovation planning require a coherent data ecosystem that brings together information from EPC databases and digital building logbooks, as well as inventories of public buildings.

Article 22 of the EPBD requires Member States to set up a national database to gather data on the energy performance of individual buildings and the overall energy performance of the national building stock. The database should collect information from all relevant sources, including EPCs, inspections, renovation passports, the smart readiness indicator and the calculated or metered energy consumption of the buildings covered. **Ideally, the database should also include indicators on socio-economic aspects in order to identify the vulnerable groups living in the worst-performing buildings, a crucial element of the social climate plans as their measures are targeting vulnerable households.**

<sup>5</sup> For more information on how to establish an integrated monitoring, reporting and evaluation framework for EPBD implementation, please see [www.bpie.eu/publication/integrated-monitoring-reporting-evaluation-framework-epbd-implementation](http://www.bpie.eu/publication/integrated-monitoring-reporting-evaluation-framework-epbd-implementation).



**EPC database (EPBD)**

The EPC database forms the backbone of national registry for the energy performance of buildings and should be progressively aligned with the requirements of the EPBD. Ensuring interoperability between EPC and renovation passport data will be essential for providing accurate renovation advice, tracking renovation progress and supporting evidence-based policymaking.



**Renovation passports and digital building logbooks (EPBD)**

According to EPBD Article 12, Member States must establish a national scheme for renovation passports based on the framework in Annex VIII. Article 12(8) of EPBD requires that a renovation passport be stored in a digital building logbook, which bring together information gathered by various stakeholders and systems throughout a building's life cycle.



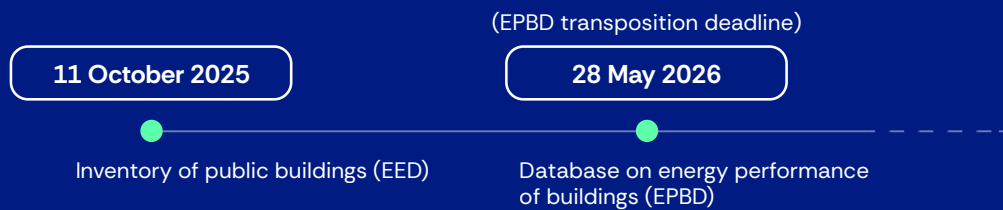
**Inventory of public buildings (EED)**

Both the EED and EPBD target public buildings, recognising their exemplary role and acknowledging that they might also need support and technical assistance through one-stop shops. EED Article 6 requires Member States to establish and publicly share an inventory of all buildings with a useful floor area over 250m<sup>2</sup> that are either owned or occupied by public bodies. This inventory must be created by 11 October 2025 and updated every two years. Furthermore, public buildings fall under the scope of Article 9 of EPBD, making it even more critical to align the national database on the energy performance of buildings (Article 22, EPBD) and the inventory of public buildings required by the EED to ensure policymakers can easily identify the thresholds for worst-performing buildings. Member States also need to include in their NBRPs an overview of their national building stock for different building types, including public buildings.

To ensure synergies with the EPBD, **the public buildings inventory should be aligned with the overview of the national building stock (EPBD Article 3) and with national databases (EPBD Article 22)**. Member States may use this opportunity of collecting data to create a public buildings inventory, as required by Article 6(5) of the EED. Aligning the national database and the public buildings inventory will ensure it is easy to identify the thresholds for worst-performing buildings. **This would help minimise data redundancy and reduce the effort required for data collection, while also simplifying governance structures in terms of roles and responsibilities.**

**Table 4.** Aligning data collection and monitoring throughout the Fit for 55 package

EPBD	EED
<p><b>Article 22</b></p> <p><b>Databases for the energy performance of buildings</b></p> <p>The <b>database</b> shall allow data to be gathered from all relevant sources related to <b>EPCs, inspections, the renovation passport, the smart readiness indicator and the calculated or metered energy consumption</b> of the buildings covered. In order to populate the database, building typologies may also be gathered. Data may also be gathered and stored on both operational and <b>embodied emissions and life-cycle global warming potential</b>.</p> <p>4. Member States shall ensure that local authorities have access to relevant data on the energy performance of buildings on their territory as required to <b>facilitate drafting of heating and cooling plans</b> and include operational geographic information systems and the related databases.</p> <p><b>Article 12</b></p> <p>8. Member States shall ensure that renovation passport is stored in, or can be accessed via, where available, the digital building logbook.</p>	<p><b>Article 6</b></p> <p><b>Exemplary role of public bodies' buildings</b></p> <p>5. By 11 October 2025, Member States shall, for the purposes of this Article, establish and make publicly available and accessible an <b>inventory of heated and/or cooled buildings that are owned or occupied by public bodies and that have a total useful floor area of more than 250 m<sup>2</sup></b>. Member States shall update that inventory at least every two years. The inventory shall be linked to the building stock overview carried out in the framework of the NBRP in accordance with Directive 2010/31/EU and the relevant databases.</p>



**Figure 5.** Timeline of key provisions on data collection within Fit for 55

# RENEWABLE ENERGY IN BUILDINGS

REDIII sets an overall target of at least a 49% share of renewable energy in the final energy consumption of buildings by 2030. To accelerate deployment, Article 15c introduces renewables acceleration areas, granting priority status to artificial and built surfaces, such as rooftops and façades of buildings, parking areas and transport infrastructure, by removing administrative barriers and streamlining permitting procedures.

The EPBD operationalises these ambitions through several key provisions. The solar mandate establishes a progressive timeline for the installation of solar energy systems: initially on new public and non-residential buildings, subsequently on existing large public buildings, and finally on new residential buildings (see Figure 6).

The definitions of renewable energy sources are aligned and coherent between the EPBD and REDIII, ensuring regulatory consistency across directives.

The definition of renewable energy is coherent in the EPBD and REDIII:



## Article 2

### Definitions:

'energy from renewable sources'

14. 'energy from renewable sources' means energy from renewable non-fossil sources, namely wind, solar (solar thermal and solar photovoltaic), and geothermal energy, ambient energy, tide, wave and other ocean energy, hydropower, biomass, landfill gas, sewage treatment plant gas, and biogas.

Further EPBD provisions reinforce the integration of renewable energy in buildings through the ZEB standard, which defines four eligible categories of clean energy supply options. While Member States retain flexibility, they are encouraged to prioritise on-site or nearby renewable energy, as this directly supports compliance with Article 10 (solar energy in buildings), enhances self-consumption, and increases the building's ability to provide flexibility services to the electricity grid.

Additional incentives are embedded in the information and certification framework. The introduction of the A+ class in the EPC scale rewards positive-energy buildings, defined as buildings with 20% less energy demand than the applicable ZEB requirement. This creates a harmonised market signal that encourages the uptake of building-integrated renewable energy and storage.

Finally, the SCF identifies renewable energy technologies, including solar PV, solar thermal and storage systems, along with renewable energy communities and self-consumption schemes as eligible measures and investments. This ensures that households, particularly vulnerable consumers, can benefit from building-level renewable energy deployment in a socially fair manner.



**Table 5.** Renewable energy in buildings throughout the Fit for 55 package

EPBD	REDIII	ETS2/ SCF
<p><b>Article 10</b>  <b>Solar energy in buildings</b></p> <p>Member States shall ensure the deployment of suitable solar energy installations, if technically suitable and economically and functionally feasible, as follows:</p> <p>(a) by 31 December 2026, on all new public and non-residential buildings with useful floor area over 250 m<sup>2</sup>;</p> <p>(b) by 31 December 2027, on all existing public buildings with useful floor area larger than 2,000 m<sup>2</sup>;</p> <p>(c) by 31 December 2028, on all existing public buildings with useful floor area larger than 750 m<sup>2</sup>;</p> <p>(d) by 31 December 2030, on all existing public buildings with useful floor area larger than 250 m<sup>2</sup>;</p> <p>(e) by 31 December 2027, on existing non-residential buildings with useful floor area larger than 500 m<sup>2</sup>, where the building undergoes a major renovation or an action that requires an administrative permit for building renovations, works on the roof or the installation of a technical building system;</p> <p>(f) by 31 December 2029, on all new residential buildings; and</p> <p>(g) by 31 December 2029, on all new roofed car parks physically adjacent to buildings.</p>	<p><b>Article 15a</b>  <b>Mainstreaming renewable energy in buildings</b></p> <p>1. In order to promote the production and use of renewable energy in the building sector, Member States shall <b>determine</b> an indicative <b>national</b> share of <b>renewable energy produced on-site or nearby as well as renewable energy taken from the grid</b> in final energy consumption in their building sector in 2030 that is consistent with an indicative target of at least a 49% share of energy from renewable sources in the building sector in the Union's final energy consumption <b>in buildings in 2030</b>.</p> <p>2. Member States shall introduce <b>appropriate</b> measures in their <b>national</b> regulations and <b>building</b> codes and, where applicable, in their support schemes, to increase the share of electricity and heating and cooling from renewable sources <b>both produced on-site or nearby as well as renewable energy taken from the grid in the building stock [...]</b> in combination with energy efficiency improvements relating to cogeneration and major renovations which increase the number of nearly zero energy buildings and buildings that go beyond minimum energy performance requirements.</p> <p>3. Member States may, among others, allow that obligation to be fulfilled by providing for <b>the roofs of public or mixed private-public buildings to be used by third parties</b> for installations that produce energy from renewable sources.</p>	<p><b>Article 8</b>  <b>Eligible measures and investments to be included in the Social Climate Plans</b></p> <p>(c) contribute to the decarbonisation, such as through electrification, of heating and cooling of, and cooking in, buildings by providing access to affordable and energy-efficient systems, and by integrating <b>renewable energy generation and storage</b>, including through <b>renewable energy communities, citizen energy communities and other active customers</b> to promote the uptake of the <b>self-consumption</b> of renewable energy, such as energy sharing and peer-to-peer trading of renewable energy, connection to smart grids and to district heating networks, that contributes to achieving energy savings or to reducing energy poverty;</p>

**Table 5.** Renewable energy in buildings throughout the Fit for 55 package (cont.)

EPBD	REDIII	ETS2/ SCF
<p><b>Article 11</b></p> <p><b>Zero-emission buildings</b></p> <p>Member States shall ensure that the total annual primary energy use of a new or renovated zero-emission building is covered by:</p> <p>(a) energy from <b>renewable sources generated on-site or nearby</b>, fulfilling the criteria laid down in Article 7 of Directive (EU) 2018/2001;</p> <p>(b) energy from renewable sources provided from a renewable energy community within the meaning of Article 22 of Directive (EU) 2018/2001;</p> <p>(c) energy from an efficient district heating and cooling system in accordance with Article 26<sup>o</sup> of Directive (EU) 2023/1791; or</p> <p>(d) energy from carbon-free sources.</p> <p><b>Article 19</b></p> <p><b>Energy performance certificates</b></p> <p>Member States may define an A+ energy performance class corresponding to buildings with a maximum threshold for energy demand which is at least twenty percent lower than the maximum threshold for zero-emission buildings, and which generates more renewable energy on-site annually than its total annual primary energy demand.</p>		

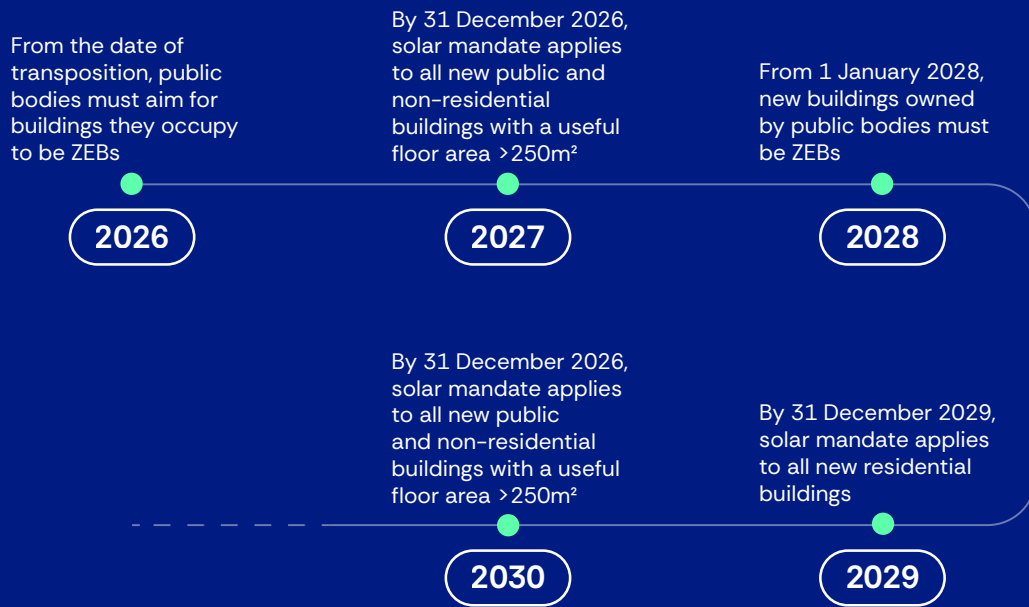


Figure 6. Timeline for ZEB standard and the solar mandates (Source: [BPIE, 2025](#))

## Decentralisation and democratisation of energy supply

The nZEB standard under the 2018 EPBD required a minimum share of renewable energy to be produced on-site. In contrast, the ZEB standard introduced by the 2024 EPBD aims for 100% renewable energy, while allowing a broader range of eligible sources. In addition to ‘on-site and nearby’, ZEBs may use efficient district heating and cooling, energy supplied by renewable energy communities, or other decarbonised energy sources.

However, the ZEB definition of ‘nearby’ is not aligned with the REDIII framework for ‘**jointly acting renewables self-consumers**’. The ZEB requirement for a dedicated network and a dedicated connection within the neighbourhood effectively limits energy exchange to the low- and medium-voltage grid. This is crucial for maximising local self-consumption, enabling storage, demand-side flexibility, and building automation and control systems. Keeping flows within the low- and medium-voltage grid also reduces the need for costly grid upgrades. By contrast, the REDIII concept of ‘**jointly acting renewables self-consumers**’ is **more restrictive, applying only within a single building or a multi-apartment block**. Some countries, such as Spain, have extended it to a 2km range.

ZEBs may also use energy from renewable energy communities. While this can support the growth of renewable energy communities, participation is contractual and can be terminated at any time, meaning it is not inherently linked to the building. In addition, the geographical boundaries for renewable energy communities vary significantly between Member States under the REDIII, creating differences in availability and impact.

To fully support decentralisation and democratisation of energy supply through local renewable energy production and self-consumption, which provide multiple benefits for the electricity grid, **ZEB implementation should prioritise renewable energy generated ‘on-site and nearby’ over other renewable energy sources**. Renovation passports and NBRP provisions also encourage collective self-consumption and renewable energy communities, even if they appear there as voluntary metrics.

**Table 6.** Decentralisation and democratisation of energy supply throughout the Fit for 55 package

EPBD	REDIII
<p><b>Article 2</b> <b>Definitions</b> 'energy from renewable sources produced nearby'</p> <p>55. 'energy from renewable sources produced nearby' means energy from renewable sources, produced within a local or district-level perimeter of a particular building, which fulfils all of the following conditions:</p> <p>(a) it can be distributed and used only within that local and district-level perimeter through a <b>dedicated distribution network</b>;</p> <p>(b) it allows for the calculation of a specific primary energy factor valid only for the energy from renewable sources produced within that local or district-level perimeter; and</p> <p>(c) it can be used <b>on-site through a dedicated connection to the energy production source</b>, where that dedicated connection requires specific equipment for the safe supply and metering of energy for self-use of the building;</p> <p><b>ANNEX VIII</b> <b>Requirements for renovation passports</b> (mandatory)</p> <p>(g) the <b>share of individual or collective generation and self-consumption</b> of renewable energy estimated to be achieved after the renovation;</p> <p><b>Article 11</b> <b>Zero-emission buildings</b></p> <p>(7) Member States shall ensure that the total annual primary energy use of a new or renovated zero-emission building is covered by:</p> <p>(a) energy from renewable sources generated on-site or nearby;</p> <p>(b) energy from renewable sources provided from a renewable energy community;</p> <p>(c) energy from an efficiency district heating and cooling system;</p> <p>(d) energy from carbon-free sources.</p> <p>(22) Different options are available to cover the energy needs of a zero-emission building: energy generated on site or nearby from renewable sources such as solar thermal, geothermal, solar photovoltaics, heat pumps, hydroelectric power and biomass, renewable energy provided by <b>renewable energy communities</b>, efficient district heating and cooling, and energy from other carbon-free sources. Energy derived from combustion of renewable fuels is considered to be energy from renewable sources generated on-site where the combustion of the renewable fuel takes place on-site.</p> <p><b>ANNEX II</b> <b>Template for national building renovation plans</b> Optional indicators: Number of: renewable energy communities and citizen-led renovation initiatives</p> <p>(g) the role of <b>renewable energy communities and citizen energy communities in district and neighbourhood approaches</b>.</p>	<p><b>Article 2</b> <b>Definitions</b> (16) '<b>renewable energy community</b>' means a legal entity:</p> <p>(a) which, in accordance with the applicable national law, is based on open and voluntary participation, is autonomous, and is effectively controlled by shareholders or members that are located in the proximity of the renewable energy projects that are owned and developed by that legal entity;</p> <p>(b) the shareholders or members of which are natural persons, SMEs or local authorities, including municipalities;</p> <p>(c) the primary purpose of which is to provide environmental, economic or social community benefits for its shareholders or members or for the local areas where it operates, rather than financial profits;</p> <p><b>Article 19</b> <b>Guarantees of origin for energy from renewable sources</b> (mandatory)</p> <p>(ii) '<b>Simplified registration processes and reduced registration fees</b> shall be introduced for small installations of less than 50 kW and for <b>renewable energy communities</b>.'</p>

# ALLEVIATING ENERGY POVERTY AND PROTECTING VULNERABLE HOUSEHOLDS

Social aspects have become increasingly prevalent in EU climate and energy policies. While the EPBD sets a vision for a zero-emission building stock by 2050 and contains a roadmap to achieve it, the Directive goes beyond this and considers people living in and using buildings. The entire Fit for 55 package establishes the conditions to ensure a socially fair transition – introducing legal definitions for specific concepts such as ‘energy poverty’ and ‘vulnerable households’; focusing renovation policies on the worst-performing buildings, which are often occupied by people in energy poverty; introducing specific safeguards to protect citizens, in particular tenants; and ensuring dedicated and better designed funding to vulnerable households, people affected by energy poverty and people living in social housing.

The Fit for 55 package introduced the strongest EU framework to date on energy poverty, making it an integral part of achieving the EU’s climate and energy objectives, not just a social afterthought. A cornerstone of this vision is the Social Climate Fund Regulation, which aims to mitigate the social and economic impacts of the climate transition on vulnerable groups, in particular those affected by the introduction of ETS2 for buildings. To access resources from the fund, Member States had to prepare social climate plans outlining support measures for vulnerable households affected by higher carbon prices. The proposed updates to the EED, REDIII and the EPBD also seek to address energy poverty in a more systemic manner by making energy renovation and renewable energy solutions accessible to all.

A coherent and socially fair implementation of Fit for 55 provisions requires strong alignment across planning instruments and targeted support measures for vulnerable groups.

- Harmonised definitions:** Member States should adopt a unified approach to defining 'energy poverty' and 'vulnerable households' across NBRPs and SCPs, drawing on the definition provided by EED Article 2(52). NBRPs and SCPs need to incorporate the definitions for vulnerable households and energy poverty, which should guide an important part of the targets and milestones of the programmes and indicators that mark their eligibility. It is therefore essential that both plans follow the same definitions, to avoid early divergences in the drafting processes. Attention should be given to the definitions used, which overlap but are not exactly parallel, which may affect the two plans' target groups. Member States should make the link and consider the SCP vulnerable households as one portion of the NBRP vulnerable households, especially since these households often live in the worst-performing buildings. Regarding monitoring and reporting, the NBRP focuses on energy poverty and worst-performing buildings, while the SCP looks more broadly at vulnerable households besides energy poverty. Member States should strive to report granular information on targets and actions for vulnerable households in their NBRP, beyond energy poverty and worst-performing buildings.



**EPBD Article 2**

**Definition: 'vulnerable households'**

*28. 'vulnerable households' means households in energy poverty or households, including lower middle-income ones, that are particularly exposed to high energy costs and lack the means to renovate the building they occupy.*



**EED Article 2**

**Definition: 'energy poverty'**

*52. a household's lack of access to essential energy services, where such services provide basic levels and decent standards of living and health, including adequate heating, hot water, cooling, lighting, and energy to power appliances, in the relevant national context, existing national social policy and other relevant national policies, caused by a combination of factors, including at least non-affordability, insufficient disposable income, high energy expenditure and poor energy efficiency of homes.*

Social fairness is central to the EED as well. Article 8(3) mandates that Member States implement energy efficiency measures as a priority among people affected by energy poverty, vulnerable customers, and those living in low-income households or social housing. Crucially, Article 8(3) mandates that energy efficiency policies prioritise people affected by energy poverty and low-income households, with targeted funding and safeguards against negative impacts. In support, Article 24(3) highlights the importance of fostering technical assistance and enabling financial tools for these groups, including through the involvement of social actors who can support vulnerable customers to actively engage in the energy transition.

- **Align planning cycles for SCPs and NBRPs:** It is crucial that SCF disbursement for buildings aligns with EPBD objectives, prioritising long-term solutions such as deep renovations of worst-performing buildings occupied by vulnerable households. Furthermore, as the timeline of the two plans allows, the drafting of SCP could feed into the NBRP both in terms of elaboration and public consultation, making sure these processes have been sufficiently inclusive.
- **Access to information and technical assistance:** Ensuring that vulnerable households can easily access reliable information and tailored technical assistance is essential for an inclusive renovation strategy. This includes providing affordable renovation passports (Article 12 EPBD) for low-income households and developing dedicated programmes within one-stop shops (Article 18 EPBD) that offer hands-on guidance throughout the renovation process. In addition, Member States should promote the participation of energy-poor households in renewable energy communities, including through specific provisions for municipal initiatives.<sup>6</sup>
- **The right incentives and financing schemes:** Across directives, there are repeated references to the need for financial incentives to overcome market barriers, particularly for vulnerable households and, where applicable, people living in social housing. These instruments can drive the renovation of the worst-performing buildings; without appropriate public and private financing, both middle-income households and vulnerable groups will struggle to undertake the required works. Several provisions further target key non-economic barriers to renovation, such as split incentives in owner-tenant situations and challenges arising in co-ownership structures. In this context, particular attention should be given to women and other groups disproportionately exposed to energy poverty, including people with disabilities, single parents, older people, children, and people from minority racial or ethnic backgrounds.<sup>7</sup>
- **Proactive outreach to vulnerable households is crucial:** Many remain unaware of renovation support schemes or lack the capacity to engage in the administrative procedures. This makes the role of trusted intermediaries particularly important for identifying, informing and accompanying vulnerable households throughout the renovation process. Certain public incentives, including loans or tax rebates foreseen in the EPBD and supported by national financing frameworks under the EED and SCF, risk failing to reach these groups and may disproportionately benefit higher-income households. Additional financial solutions, such as green mortgages or guarantee funds, may be more suitable for deep renovations, which typically go beyond business-as-usual renovations and involve higher investment needs. For larger interventions or setting up renewable energy communities, public-private partnerships can also play a role, as these projects often require combined public and private investment in renewable energy systems and storage – areas also encouraged through the REDIII and SCF investment priorities.

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<sup>6</sup> For example, the municipality of Pamplona has introduced a scheme that allocates a 10% share of renewable energy production free of charge to households experiencing energy poverty: [www.bpie.eu/publication/enabling-finance-for-positive-energy-neighborhoods](http://www.bpie.eu/publication/enabling-finance-for-positive-energy-neighborhoods)

<sup>7</sup> [Council Recommendation of 16 June 2022](#)

The SCF requires Member States to embed energy poverty considerations into their social climate plans by mandating a robust, evidence-based assessment of the distributional impacts arising from the extension of the ETS2 to buildings and road transport. Member States have to estimate the expected effects of carbon pricing on households, with particular attention to the incidence and spatial concentration of energy poverty. The SCPs must further quantify and identify vulnerable households and clarify how national definitions of energy and transport poverty are to be operationalised.

The SCF encourages Member States to include in their SCPs measures and investments that contribute to the decarbonisation of buildings, such as through electrification of heating and cooling in buildings by providing access to affordable and energy-efficient systems, and by integrating renewable energy generation and storage, including through renewable energy communities.

In this way, **its analytical architecture strengthens coherence with the EED, which requires Member States to prioritise vulnerable groups and those affected by energy poverty; with the RED, which advances the usage of renewable energy sources in buildings and the participation of those groups in energy communities; and with the EPBD, which emphasises the renovation of worst-performing buildings.**

Energy poverty and housing affordability are structurally interconnected. While housing affordability is often framed in terms of rent or mortgage costs, the total cost of housing includes energy expenditures. For low-income households, high energy bills – especially in inefficient buildings – can turn otherwise affordable housing into unaffordable housing. Conversely, poor housing quality is one of the primary drivers of energy poverty. Even though the European Affordable Housing Plan does not explicitly address energy poverty, it acknowledges that this is a major problem for housing affordability. **The plan correctly links affordability not only with rents, but also to energy costs and building performance.** In doing so, the European Affordable Housing Plan emphasises some elements from the Fit for 55 package, such as the role of one-stop shops (addressed in both the EED and EPBD) to provide guidance and trustworthy information on renovation, and empowering households to produce their own renewable energy, so they can save on their energy bills and generate benefits that can be shared with their neighbours in an energy community.

**Table 7.** Energy poverty and vulnerable households throughout the Fit for 55 package

EPBD	EED	ETS2/ SCF
<p><b>Article 9</b></p> <p><b>Minimum energy performance standards for non-residential buildings and trajectories for progressive renovation of the residential building stock</b></p> <p>Member States shall support compliance with minimum energy performance standards by all the following measures:</p> <p>(a) providing appropriate financial measures, in particular those targeting vulnerable households, people affected by energy poverty or, <b>where applicable</b>, living in social housing.</p> <p>(b) providing technical assistance, including through one-stop-shops <b>with a particular focus on vulnerable households and, where applicable, people living in social housing...</b></p> <p>(b) designing integrated financing schemes, <b>which provide incentives for deep and staged deep renovations, pursuant to Article 15;</b></p> <p>(c) removing non-economic barriers, including split incentives; and</p> <p>(e) monitoring social impacts, in particular on the most vulnerable households.</p> <p><b>Article 12</b></p> <p><b>Renovation passport</b></p> <p>Member States shall take measures to ensure that renovation passports are <b>affordable and shall consider whether to provide financial support to vulnerable households</b> wishing to renovate their buildings.</p> <p><b>Article 3</b></p> <p><b>National building renovation plan</b></p> <p>2(b) a roadmap with nationally established targets and measurable progress indicators, including the reduction of the number of people affected by energy poverty, with a view to achieving the 2050 climate neutrality goal, in order to ensure a highly energy-efficient and decarbonised national building stock and the transformation of existing buildings into zero-emission buildings by 2050;</p>	<p><b>Article 9</b></p> <p><b>Energy efficiency obligation schemes</b></p> <p>6. To protect people affected by energy poverty, vulnerable customers and, where applicable, people living in social housing, Member States shall encourage obligated parties to carry out actions such as renovation of buildings, including social housing, replacement of appliances, financial support and incentives for energy efficiency improvement measures in accordance with national financing and support schemes, or energy audits.</p> <p><b>Article 6</b></p> <p><b>Exemplary role of public bodies' buildings</b></p> <p>Member States may exempt social housing from the obligation to renovate referred to in the first subparagraph where such renovations would not be cost neutral or would lead to rent increases for people living in social housing unless such rent increases are no higher than the economic savings on the energy bill.</p> <p><b>Article 24</b></p> <p><b>Empowering and protecting vulnerable customers and alleviating energy poverty</b></p> <p>3. To support people affected by energy poverty, vulnerable customers, people in low-income households and, where applicable, people living in social housing, Member States shall, where applicable:</p> <p>(a) implement energy efficiency improvement measures to mitigate distributional effects from other policies and measures, such as taxation measures implemented in accordance with Article 10 of this Directive, or the application of emissions trading in the buildings and transport sector.</p>	<p><b>Article 2</b></p> <p><b>Definitions</b></p> <p>2(1) 'Energy poverty' means a household's lack of access to essential energy services that underpin a decent standard of living and health, including adequate warmth, cooling, lighting, and energy to power appliances, in the relevant national context, existing social policy and other relevant policies.</p> <p>2(10) 'Vulnerable households' means households in energy poverty or households, including low income and lower middle-income ones, that are significantly affected by the price impacts of the inclusion of GHG emissions from buildings within the scope of Directive 2003/87/EC and lack the means to renovate the building they occupy.</p> <p>Article 4 (1) Each Member State shall submit to the Commission its Social Climate Plan.</p> <p>Article 4(4) The plan shall include national and, where relevant, local and regional measures and investments to carry out building renovation, and decarbonise heating and cooling of buildings, including the integration of renewable energy generation and storage.</p> <p>Article (5) Each Member State shall submit a plan following a public consultation with local and regional authorities, representatives of economic and social partners, relevant civil society organisations, youth organisations and other stakeholders.</p> <p><b>Article 10</b></p> <p>A maximum €65 billion from 1 January 2026 to 31 December 2032 is allocated to the fund. In addition, Member States must contribute at least 25% of the estimated total costs of their plans.</p>

**Table 7.** Energy poverty and vulnerable households throughout the Fit for 55 package (cont.)

EPBD	EED	ETS2/ SCF
<p><b>ANNEX II</b></p> <p><b>Template for the national building renovation plans (referred to in Article 3)</b></p> <p><b>Mandatory indicators</b></p> <p>Energy poverty (definition):</p> <ul style="list-style-type: none"> <li>—% of people affected by energy poverty</li> <li>— proportion of disposable household income spent on energy</li> <li>— population living in inadequate dwelling conditions (e.g. leaking roof) or with inadequate thermal comfort conditions</li> </ul> <p>Expected wider benefits:</p> <ul style="list-style-type: none"> <li>— % reduction of people affected by energy poverty empowering and protecting vulnerable customers and the alleviation of energy poverty, including policies and measures pursuant to Article 24 of Directive (EU) 2023/1791, and housing affordability.</li> </ul> <p><b>Article 18</b></p> <p><b>One-stop shops for the energy performance of buildings</b></p> <p>(b)provide holistic support to all households, with a particular focus on households affected by <b>energy poverty and on worst-performing buildings</b>, as well as to accredited companies and installers providing retrofit services, adapted to different housing typologies and geographical scope, and provide support covering the different stages of the retrofit project.</p> <p><b>Article 17</b></p> <p><b>Financial incentives, skills and market barriers</b></p> <p>17. Without prejudice to their national economic and social policies and to their systems of property law, Member States shall address the eviction of <b>vulnerable households</b> caused by disproportionate rent increases following energy renovation of their residential building or building unit.</p> <p>19. [...] Member States shall introduce effective safeguards, to protect in particular vulnerable households, including by providing rent support or by imposing caps on rent increases, and may incentivise financial schemes to tackle the upfront costs with renovations, such as on-bill schemes, pay-as-you-save schemes or energy performance contracting.</p>	<p><b>Article 30</b></p> <p><b>National energy efficiency fund, financing and technical support</b></p> <p>The <b>national energy efficiency fund</b> may be financed with revenues from the allowance auctions pursuant to the <b>EU ETS on buildings and transport sectors</b>.</p> <p>Member States shall adopt measures that promote energy efficiency lending products, such as <b>green mortgages and green loans</b>, secured and unsecured, and ensure that they are offered widely and in a non-discriminatory manner by financial institutions, and are visible and accessible to consumers. Member States shall adopt measures to facilitate the implementation of <b>on-bill and on-tax financing schemes</b>, taking into account the Commission guidance provided in accordance with paragraph 10. Member States shall ensure that banks and other financial institutions receive information on opportunities to participate in the financing of energy efficiency improvement measures, including through the creation of public-private partnerships. Member States shall encourage the setting up of loan guarantee facilities for energy efficiency investment.</p>	

**Table 7.** Energy poverty and vulnerable households throughout the Fit for 55 package (cont.)

EPBD	EED	ETS2/ SCF
<p><b>Article 17</b></p> <p><b>Financial incentives, skills and market barriers</b></p> <p>18. Financial incentives shall target, as a priority, vulnerable households, people affected by <b>energy poverty</b> and people living in <b>social housing</b>, in accordance with Article 24 of Directive (EU) 2023/1791</p> <p><b>Recitals</b></p> <p>(63) Therefore, financial incentives and other policy measures should as a priority target vulnerable households, people affected by energy poverty and people living in social housing, and Member States should take measures to prevent evictions because of renovation, such as caps on rent increases.</p>		

## Renovations for increasing good quality and affordable housing

Accelerating the renovation of the existing building stock is a central objective of the Fit for 55 package and a key lever for improving housing quality and affordability. Renovations not only reduce energy consumption and emissions but also create better living conditions in general.

Within the Fit for 55 framework, the EPBD introduces new requirements for Member States to improve the energy performance of their existing building stock through gradually phasing out the worst-performing buildings. This creates a structured pathway for triggering renovations while improving the quality of the housing stock. While the EED aims to reduce energy consumption across various sectors, it places particular emphasis on the public sector, including the requirement to renovate at least 3% of the total floor area of public buildings annually. The SCF provides an additional mechanism to improve the housing supply, especially for vulnerable households. Through using the resources of the SCF, Member States can finance socially just renovations and improve housing conditions for the most vulnerable.

**The European Affordable Housing Plan complements these measures by emphasising the efficient use of the existing building stock, avoiding unnecessary demolition and waste, renovating inefficient buildings, repurposing existing structures, and bringing vacant properties back into use.** It also aims to reduce administrative barriers in construction and renovation by promoting simplified permitting, reduced red tape, innovation in construction, and mobilisation of public and private investment to close the housing supply gap. These measures can reduce barriers to renovating and building high-quality affordable housing that meets energy performance and renewable integration standards under EED, EPBD and RED.

Delivering all these requirements is fundamentally contingent on the availability of a skilled, sufficiently large, and well-trained construction workforce. Across the **EPBD, EED, RED, SCF** and the new **European Affordable Housing Plan**, labour and skills emerge as a central enabling condition for delivering the needed rate and depth of renovations (see Table 8).

According to the EPBD, Member States must now include a detailed assessment of their workforce capacity in their NBRPs. This includes mandatory indicators for the number of skilled workers, construction companies and architects, as well as workforce projections regarding retirements and new entrants. The EED requires Member States to establish a network of certified energy efficiency professionals, including energy auditors, managers and installers. These schemes must be assessed every four years to identify and address skills gaps. REDIII focuses on ensuring that certification schemes are available for installers of solar PV, heat pumps and recharging points. The SCF provides financial resources for training programmes, prioritising upskilling for vulnerable people and workers in areas most affected by the energy transition. Finally, the European Affordable Housing Plan also aims to address the labour and skills shortages in the construction sector by rolling out large-scale training and apprenticeship programmes in construction-related professions.

Taken together, these requirements highlight the important role that renovations can play in improving housing affordability. By reducing energy consumption and improving living conditions, renovations can lower the overall cost of housing while increasing the supply of good-quality homes. **As Member States implement the files from Fit for 55, it will be crucial to ensure that renovation strategies are aligned with housing affordability objectives, especially by prioritising the renovation of worst-performing buildings.** At the same time, Member States will have to develop training and upskilling programmes to ensure there is a highly skilled workforce capable of delivering the necessary renovation rates and depth.

**Table 8.** Renovations for increasing good quality and affordable housing throughout the Fit for 55 package and beyond

EPBD	EED	RED	ETS2/ SCF	EHAP
<p><b>Annex II</b></p> <p><b>Template for the national building renovation plan</b></p> <p>(a) Overview of the national building stock</p> <p>Mandatory indicators</p> <p>Evaluation of the capacities in the construction, energy efficiency and renewable energy sectors.</p> <p>Optional indicators</p> <p>Number of:</p> <ul style="list-style-type: none"> <li>energy service companies</li> <li>construction companies</li> <li>architects and engineers</li> <li>skilled workers</li> <li>SMEs in the construction/ renovation sector</li> <li>Projections of the construction workforce:</li> <li>retiring architects/ engineers/skilled workers</li> <li>architects/engineers/skilled workers entering the market.</li> </ul> <p>c) Overview of implemented and planned policies and measures</p> <p>(o) Addressing skills gaps and promoting education, targeted training, upskilling and reskilling in the construction sector and energy efficiency and renewable energy sectors, with a view to ensuring that there is a sufficient workforce with the appropriate level of skills corresponding to the needs in the building sector.</p>	<p><b>Article 28</b></p> <p><b>Availability of qualifications, accreditation and certifications schemes</b></p> <p>(1) Member States shall set-up a network ensuring the appropriate level of competences for energy efficiency-related professions that corresponds to market needs.</p> <p>(2) Member States shall <b>promote participation in certification, training and education programmes to ensure the appropriate level of competences for energy efficiency professions</b> that correspond to market needs.</p>	<p><b>Article 16</b></p> <p><b>Organisation and main principles of the permit-granting procedure</b></p> <p>(7) Member States shall <b>provide adequate resources to ensure qualified staff, upskilling and reskilling of their competent authorities</b> in line with the planned installed renewable energy generation capacity.</p>	<p><b>Article 8</b></p> <p><b>Eligible measures and investments to be included in the Social Climate Plans</b></p> <p>(3) Member States may include in the estimated total costs of the Plans the costs of technical assistance to cover expenses related to <b>training</b>, programming, monitoring, control, audit and evaluation activities which are required for the management of the Fund and the achievement of its objectives.</p>	<p><b>Pillar I</b></p> <p><b>Boosting supply</b></p> <p>Action 1. Strengthening productivity, capacity and innovation of the construction industry</p> <p>Address skills shortages in the construction sector, by <b>rolling out large-scale training and apprenticeship programmes in construction-related professions</b> [...] and promoting innovation in the construction curricula.</p>

# LEVERAGING PRIVATE FINANCING

This section examines the EU Taxonomy technical screening criteria for climate change mitigation relevant to the construction sector, comparing their level of ambition with the goals and provisions of the EPBD. It is important to note, however, that the EU Taxonomy climate **delegated acts were adopted before the 2024 EPBD, so the Taxonomy criteria are still based on the former nZEB benchmarks rather than the updated ZEB requirements.**<sup>8</sup> This misalignment creates a situation in which the EPBD establishes more stringent requirement than those currently utilised by the EU Taxonomy, in both the shift from nZEB to ZEB standards and the introduction of whole-life carbon disclosure obligations. To prove additionality and sustainability leadership, the EU Taxonomy and its application in sustainable finance disclosures and corporate sustainability reporting should set higher performance levels, especially for new buildings, that are more ambitious than the minimum performance standards set out in the EPBD and are ahead of the EU building stock decarbonisation pathway.

The following economic activities of the EU Taxonomy regarding climate mitigation and adaptation are included in the analysis:

- Acquisition and ownership of buildings
- Construction of new buildings
- Renovation of existing buildings
- Installation, maintenance and repair of energy efficiency equipment
- Installation, maintenance and repair of instruments and devices for measuring, regulating and controlling the energy performance of buildings
- Installation, maintenance and repair of renewable energy technologies.

The EU Taxonomy has significant implications for construction and real estate: many firms are directly affected or will need to comply at the request of clients or financial institutions. As environmental risks become more transparent, the market is expected to differentiate more sharply between efficient and inefficient buildings, leading to potential value differentiation for poorly performing assets.<sup>9</sup>

<sup>8</sup> A consultation on the revision of the technical screening criteria ended in December 2025, so a proposal for revision might be expected in the near future: [https://ec.europa.eu/info/law/better-regulation/have-your-say/initiatives/14875-Sustainable-investment-review-of-the-EU-taxonomy-climate-delegated-act\\_en](https://ec.europa.eu/info/law/better-regulation/have-your-say/initiatives/14875-Sustainable-investment-review-of-the-EU-taxonomy-climate-delegated-act_en).

<sup>9</sup> The EU Taxonomy is about 'economic activities', not real estate assets, so its most relevant impact is the availability of financing (or preferential financing conditions) for the construction and renovations of buildings which achieve high performance, and lack of loans/equity for those that underperform.

Because the EU Taxonomy delegated acts were adopted before the 2024 EPBD, they still rely on previous nZEB benchmarks. Once ZEB requirements enter fully into force in 2028/2030, maintaining the existing Taxonomy criteria would mean that all new buildings automatically qualify as Taxonomy-compliant, removing incentives to exceed the minimum requirements. Updating the Taxonomy to reflect ZEB performance levels and the EPBD's definition of deep renovation will streamline compliance processes, eliminate regulatory inconsistencies, and ensure that investments are aligned with the ambition required for decarbonisation pathways.

**The EU Taxonomy relies on EPC classes to identify 'sustainable real estate projects', requiring existing buildings to either reach class A or belong to the top 15% of the national or regional building stock** in terms of operational primary energy demand. A key challenge for Taxonomy users was that EPC schemes across Member States were not harmonised, meaning that the EPC ratings and thus investments in different Member States cannot be directly compared. The EPBD addresses this issue by introducing a common A to G scale, a significant step forward for the practical implementation of the EU Taxonomy. Under the new framework, class A corresponds to ZEB levels, while class G represents the worst-performing buildings. Annex V provides further harmonisation by defining a template for mandatory and optional EPC indicators.

Member States may introduce an A+ class for buildings with an energy demand at least 20% lower than ZEB levels within the EPC rating. **For new constructions, the EU Taxonomy requires an energy demand 10% lower than nZEB, which effectively coincides with the ZEB requirement of having 10% less energy demand than nZEB.** Since ZEB becomes the mandatory minimum requirement for all new buildings from 2030 onwards, **a more ambitious level, such as the A+ class, could become the future threshold for new buildings under the EU Taxonomy.**

As EU Taxonomy compliance relies heavily on EPCs, robust quality assurance measures must accompany these developments, including mandatory on-site inspections, fully operational EPC databases, systematic sampling, and verification of both input and output data. More granular and higher-quality information should also be integrated into digital building logbooks and linked with renovation passport implementation. Such an enhanced data environment could support more accurate and consistent EU Taxonomy reporting.

**The renovation criteria under the EU Taxonomy are not fully aligned with the EPBD.** The Taxonomy applies a starting-point logic, requiring a 30% reduction in energy demand, whereas the EPBD defines deep renovation based on an end-point approach, requiring buildings to reach nZEB levels until 2030 and ZEB levels thereafter. Moving forward, **the EU Taxonomy could incorporate the ZEB standard** to ensure consistency across frameworks and encourage more ambitious renovation efforts.

Finally, the ambition and technical screening criteria under the EU Taxonomy should be updated to reflect the higher ambition of the EPBD. Deep renovation definitions should follow the EPBD framework, nZEB benchmarking should be replaced by ZEB thresholds, and the overall level of ambition should reflect the EU's 2030 and 2040 decarbonisation goals to provide clearer long-term signals to the market and reduce the risk of stranded assets. Only by aligning regulatory, financial and technical frameworks can Member States ensure a coherent, efficient and future-proof implementation of building decarbonisation policies.

**Table 9.** Leveraging private financing throughout the Fit for 55 package and beyond

EPBD	EU Taxonomy
<p><b>Annex II</b></p> <p><b>Energy performance certificates</b></p> <p>2. By 29 May 2026, the energy performance certificate shall comply with the template in Annex V. It shall specify the energy performance class of the building, on a closed scale using only letters from A to G. <b>The letter A shall correspond to zero-emission buildings, and the letter G shall correspond to the very worst-performing buildings</b> in the national building stock at the time of the introduction of the scale.</p> <p>4. Member States shall ensure the <b>quality, reliability</b> and affordability of energy performance certificates.</p> <p><b>Article 11</b></p> <p><b>Zero-emission buildings</b></p> <p>3. The maximum threshold for the <b>energy demand of a zero-emission building shall be at least 10 % lower than</b> the threshold for total primary energy use established at Member State level for <b>nearly zero-energy buildings</b> on 28 May 2024.</p> <p>Recitals</p> <p>(9) The global warming potential (GWP) over a building's whole life cycle indicates the building's overall contribution to emissions that lead to climate change. It brings together greenhouse gas emissions embodied in construction products with direct and indirect emissions from the use stage. <b>A requirement to calculate the life cycle GWP of new buildings</b> therefore constitutes a first step towards increased consideration of the whole-life-cycle performance of buildings and a circular economy.</p> <p><b>Article 2</b></p> <p><b>Definitions</b></p> <p>(20) '<b>deep renovation</b>' means a renovation which is in line with the 'energy efficiency first' principle, which focuses on essential building elements, and which transforms a building or building unit:</p> <p><b>(a) before 1 January 2030, into a nearly zero-energy building;</b>  <b>(b) from 1 January 2030, into a zero-emission building;</b></p>	<p><b>Main activity: Acquisition and ownership of buildings</b></p> <p><b>EU taxonomy criteria:</b></p> <ul style="list-style-type: none"> <li>For buildings built before 31 December 2020, the building has at least an <b>Energy Performance Certificate (EPC) class A</b>. As an alternative, the <b>building is within the top 15% of the national or regional building stock</b> expressed as operational <b>Primary Energy Demand (PED)</b> and demonstrated by adequate evidence, which at least compares the performance of the relevant asset to the performance of the national or regional stock built before 31 December 2020 and at least distinguishes between residential and non-residential buildings.</li> <li>Where the building is a large non-residential building (with an effective rated output for heating systems, systems for combined space heating and ventilation, air-conditioning systems or systems for combined air-conditioning and ventilation of over 290 kW) it is efficiently operated through energy performance monitoring and assessment.</li> </ul> <p><b>Main activity: Construction of new buildings</b></p> <p><b>EU taxonomy criteria:</b></p> <ul style="list-style-type: none"> <li><b>Primary Energy Demand (PED) is at least 10% lower than the threshold set for NZEB</b> requirements in national measures implementing Directive 2010/31/EU.</li> <li><b>Energy performance is certified using an EPC</b></li> <li>Also, <b>the GWP has been calculated for each stage</b>. This information (including deviations) is disclosed to investors and clients. If compliance should be verified by an independent third party, this party published and transmits a report to the Commission every year, certifying the level of direct GHG emissions and other defined trajectories.</li> </ul> <p><b>Main activity: Renovation of existing buildings</b></p> <p><b>EU taxonomy criteria:</b></p> <ul style="list-style-type: none"> <li>Building renovation complies with Directive 2010/31/EU. Alternatively, it leads to a primary <b>energy demand PED reduction of at least 30%</b>.</li> </ul>

# LOOKING TOWARDS A POST-2030 POLICY FRAMEWORK

A coherent and harmonised implementation of the EPBD, EED, REDIII, ETS2 and SCF together with the EU Taxonomy and the European Affordable Housing Plan will support the EU's overarching objectives of decarbonising the building stock by reducing energy demand, scaling renewables, ensuring affordability and enabling private financing. The EPBD and EED advance the EE1 principle by increasing renovation rates, phasing out fossil fuels in heating and cooling, and strengthening obligations for public-sector renovation. The REDIII together with the EPBD solar mandate and the introduction of the ZEB standard accelerate the deployment of renewable energy in buildings, promote decentralised generation, and enable demand-side flexibility. ETS2 reinforces the shift away from fossil fuels by pricing carbon in buildings, while the SCF mitigates distributional impacts and supports vulnerable households, improving the affordability of both renovations and housing.

Achieving these policy goals requires strong collaboration across national, regional and local levels. National authorities must work together with regional and local administrations to co-create NBRPs, while ensuring municipalities map and integrate multiple spatial layers at local level. Cities will play a central role, particularly through the identification of worst-performing buildings for implementing MEPS and national trajectories (EPBD) and the 3% annual renovation obligation for public building floor area (EED), the designation of renewable acceleration areas (REDIII), and the preparation of heating and cooling plans (EED). Such spatial integration will support cost-effective pathways towards zero-emission buildings and local energy system optimisation.

Much of the current EU framework for buildings, including key targets and main regulatory milestones, focuses primarily on the period up to 2030, with some measures extending to 2030–2035. While this was intentional, as all this legislation was designed to support the EU and Member States in achieving the 2030 energy and climate targets, **the policy debate increasingly needs to look ahead to post-2030 legislation. Providing the right policy signals towards 2040 would help align planning and investment decisions across the building sector with the objective of a zero-emission building stock by 2050.**



Looking beyond Fit for 55 and towards a post-2030 legislation, policymakers need to be aware of the following caveats. Some of these inconsistencies can already be addressed in the implementation phase of these files. However, the expectation for the post-Fit for 55 period is to further enhance the coherence and alignment of building policies.

## Further alignment between energy efficiency measures and renewable energy deployment

While the EPBD, EED, and REDIII collectively promote both efficiency gains and renewable integration, their interaction does not always guarantee optimal outcomes. In principle, energy demand in buildings should be reduced through deep renovations, the remaining demand should be electrified, and renewable sources should supply this lower demand.

In practice, the interaction between these frameworks does not automatically guarantee optimal sequencing. Renovation requirements may improve performance without fully decarbonising heating systems, while renewable targets may drive electrification in buildings that have not undergone deep renovations, perpetuating energy waste. This partial coordination will lead to increased costs and sub-optimal outcomes

Electrifying inefficient buildings before significantly reducing demand can increase peak loads, strain infrastructure and raise overall system costs. At the same time, district heating decarbonisation strategies might not be synchronised with building renovation cycles, leading to potential mismatches between infrastructure investments and future demand levels.

Only a combined approach integrating renovations, clean heating and cooling technologies, and deployment of renewable energy can bring the building stock to a ZEB standard by 2050.

### Ways to improve this

- ✓ A stronger operationalisation of the 'energy efficiency first' principle across all directives will ensure that demand reduction through (deep) renovations and large-scale electrification or renewable deployment in the built environment are conducted in a coherent and optimal way.
- ✓ Renewable energy in buildings should be prioritised on-site and nearby for the implementation of the EPBD's ZEB framework. Prioritising building-integrated and locally available renewable sources improves energy system efficiency, enhances building-level flexibility, and reduces the need for costly grid upgrades. At the same time, decentralised renewable generation strengthens energy security and resilience to energy price volatility and future energy crises.

- ✓ National and local policymakers should ensure greater coordination between NBRPs, local heating and cooling plans and renewable targets so renovation strategies, energy efficiency measures and renewable energy deployment are implemented in a coherent manner. Aligning these planning instruments will allow policymakers to synchronise renovations with the decarbonisation of heating and cooling systems and the expansion of renewable energy in buildings, avoiding inefficient sequencing of investments.

## Strengthening data governance

A coherent national building data ecosystem (Article 22, EPBD), integrating EPC databases, digital building logbooks and public building inventories, should become a structural pillar of Fit for 55 implementation.

High-quality, interoperable data and robust EPC systems are critical to track progress on the NBRP and to ensure compliance with both EU and national requirements. Inventories of public buildings (as required by the EED), datasets on worst-performing buildings for MEPS, and renovation passport information should all be consolidated within EPC databases and digital building logbooks. This unified data environment will also support access to green loans, verification of EU Taxonomy compliance, and better decision-making by real-estate actors and private investors, ultimately driving renovation activity and reducing the risk of stranded assets.

### Ways to improve this

- ✓ EPBD Article 22 must be effectively implemented to ensure a coherent national building data ecosystem.
- ✓ Member States need to develop interoperable datasets linking social, building and energy related indicators. They should guarantee responsible data sharing between building registries, energy providers, social welfare databases and income support systems under clear governance and privacy protection. This will ensure a single reference point for ministries, policymakers, social services and research institutes that enables evidence-based decision-making.
- ✓ Setting clear governance structures for the national database on the energy performance of buildings will ensure these are evolving and adaptable infrastructures, able to incorporate additional data sources over time, especially as buildings become increasingly digitalised and generate more data.

## Embedding social fairness structurally, not correctively

Although ETS2 introduces a carbon price for buildings and the Social Climate Fund is meant to cushion vulnerable households, social protection mechanisms are not fully embedded into the policy framework of the Fit for 55 package.

The EPBD contains renovation provisions that may disproportionately affect low-income homeowners and tenants. ETS2 can increase heating costs before renovation benefits materialise, while the SCF operates as a compensatory instrument rather than a structurally integrated affordability mechanism.

### Ways to improve this

- ✓ Greater coherence is needed in how vulnerability and energy poverty are defined and operationalised across policy instruments and strategic documents. Developing a common framework for identifying vulnerable households would strengthen policy consistency across renovation planning, social climate measures.
- ✓ Aligning NBRP and SCP planning cycles by organising joint drafting and public consultation sessions on common aspects of both documents (worst-performing buildings, vulnerable households, energy poverty, targeted financial and technical assistance for low-income households etc.) will improve coherence.
- ✓ Policymakers need to find the right balance between revenue frontloading and long-term structural reforms. Early financial support coming from ETS2 revenues<sup>10</sup> could prepare households and businesses before the carbon price takes effect. Revenue frontloading should be strongly complemented by a comprehensive policy mix targeting vulnerable households and structural reforms with long-lasting impact for low-income groups.

## Establishing an integrated EU financing framework

A further critical dimension concerns the financing architecture of renovations and building decarbonisation. While the Fit for 55 package established ambitious regulatory obligations, it does not itself constitute or provide a comprehensive financing framework.

Funding for building decarbonisation is dispersed across a complex ecosystem of EU instruments, national schemes and private capital. For national policymakers, navigating this landscape is administratively demanding and often fragmented, requiring coordination across ministries, funding cycles and eligibility criteria. To reach the energy and climate targets for 2030 and post-2030, it is essential to secure continuity of funding, creating a stable long-term financing framework to help policymakers and businesses better anticipate demand and plan accordingly.

<sup>10</sup> The European Investment Bank has already approved a facility to prefinance investments in affordable energy and transport solutions for low- and middle-income households and small businesses, monetising expected revenues from ETS2: [www.eib.org/en/press/all/2026-044-eib-stands-ready-to-frontload-future-revenues-from-emissions-trading-and-provide-financing-to-member-states-to-fast-track-investments-that-cut-energy-bills-for-households-and-small-businesses](https://www.eib.org/en/press/all/2026-044-eib-stands-ready-to-frontload-future-revenues-from-emissions-trading-and-provide-financing-to-member-states-to-fast-track-investments-that-cut-energy-bills-for-households-and-small-businesses).

## Ways to improve this

- ✓ Future policy frameworks should aim to consolidate and streamline access to both public and private financing, through more harmonised guidance, blended finance mechanisms and technical assistance that supports Member States in combining EU funds with national and private resources. In particular, a clearer alignment between regulatory obligations (such as MEPS, fossil fuel phase-out, ZEB standard) and available financing streams would help effectively mobilise the required investments.
- ✓ Adopt a more policy-oriented Multiannual Financial Framework, which is better aligned with the EU's renovation and energy efficiency ambitions, and mainstream the 'energy efficiency first' principle throughout.

The Fit for 55 package has laid a robust regulatory foundation for transforming Europe's building stock, strengthening energy performance standards, accelerating renewable deployment and initiating the gradual phase-out of fossil fuels in heating and cooling.

Yet achieving the heightened 2040 climate target will require moving beyond regulatory ambition alone. Greater territorial coordination through spatial planning, interoperable and high-quality data systems, consistent application of the 'energy efficiency first' principle, and structurally embedded social safeguards must underpin implementation. At the same time, aligning renewable deployment with renovation cycles and updating the EU Taxonomy to reflect the zero-emission building standard will be essential to maintain coherence between regulatory and financial frameworks.

Looking ahead, the success of the post-2030 framework will depend on its ability to integrate regulatory, financial, social and territorial dimensions into a single, coherent governance architecture – capable not only of delivering emissions reductions, but of ensuring a just, affordable and resilient built environment across the Union.

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