

# Financing the Renovation Wave

## How to align EU funding with new building legislation



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## Introduction

The EU recently agreed on new laws to increase energy savings and accelerate the decarbonisation of buildings. In accordance with the initial ambition of the Renovation Wave strategy, and to comply with the new requirements, Member States will need to increase both the rate and the quality of building renovations. Specific efforts will be needed with regard to public buildings, which have increased obligations, and Member States will also need to devote particular attention to social aspects, as the rules introduce requirements to tackle energy poverty and better support vulnerable households.

Those changing rules pose a significant challenge for Member States and will require a change of approach in the way the building stock is managed. To help them in this effort, the EU offers a variety of funds and support schemes that can help in implementing the new standards, by supporting the rollout of renovation as well as by alleviating the impact on those who will be affected most by the changing rules.

As Member States are now in the process of transposing the directives into national law, this briefing will look at how the new legislative framework for the building sector might affect the financing support needed, as well as at the conditions needed to make sure public funds can help implement the new rules. By focusing on a set of practices in place with the use of EU funds to renovate buildings, the briefing will identify the challenges that limit the potential of EU funds, as well as solutions that can help trigger the changes and maximise the impact of public financing for increasing and improving building renovations in an effective and just manner.

## The untapped potential of renovating buildings

The building sector is an important contributor to climate change, as it is responsible for 36 per cent of the EU's greenhouse gas emissions. It is also a big energy consumer, accounting for 40 per cent of the EU's total energy consumption, with fossil fuels providing 80 per cent of the energy.

The building stock in the EU is largely in poor shape, with 75 per cent of all buildings deemed inefficient. Even worse, the Buildings Performance Institute Europe's (BPIE) own analysis of national registries of Energy Performance Certificate schemes found that 97 per cent of all certified residential buildings are in a performance class lower than A.

To address these challenges, demand-side action is needed, with measures for reducing the use of energy such as thermal renovation and minimising the demand for heating, cooling and lighting. But it is also important to address energy supply and to decarbonise energy use, in particular for heating and cooling. The building sector is facing difficulties because of its diversity, complex ownership structure, and considerable challenges in terms of climate impact. A comprehensive approach for building renovation should also address social challenges and consider the impact on residents. It is therefore a highly complex and multidimensional policy that requires combined efforts.

However, its benefits can be immense and can go beyond climate mitigation. A BPIE study<sup>1</sup> found that if all existing residential buildings in the EU were renovated, 44 per cent of the total energy used for residential

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<sup>1</sup> Buildings Performance Institute Europe, [How to stay warm and save energy: Insulation opportunities in European homes](#), *Buildings Performance Institute Europe*, 18 January 2023.

space heating in 2020 could have been saved. Building renovation policy can also help in increasing energy security, as applying the new directive to the performance of buildings could save the EU between 21 and 44 billion cubic metres of imported gas annually.<sup>2</sup> A comprehensive action on buildings could therefore help in achieving the EU's energy and climate targets, but its benefits go well beyond that.

According to the think tank E3G,<sup>3</sup> building decarbonisation and efficiency improvement play a decisive role in delivering societal benefits, in particular for increasing people's wellbeing. With 10.6 per cent of the EU population unable to keep their homes warm in 2023,<sup>4</sup> housing is one of the essential services needed to meet basic human needs. Promoting accessible and energy-efficient homes supports the right to adequate housing enshrined in several charters.

Home renovations can also stimulate and strengthen the economy. Investing in the energy renovation of buildings contributes to job creation, and studies<sup>5</sup> estimate that for every EUR 1 million invested in the sector, an average of 18 local, long-term jobs are created. It also has the potential to strengthen the competitiveness of the clean heat and efficiency industries. Deploying 60 million heat pumps by 2030 could increase the EU's GDP by 2.5 per cent.<sup>6</sup>

Lastly, with banks holding enormous sums of money in real estate assets, this represents significant exposure to climate and energy risks.<sup>7</sup> Improving energy efficiency would mitigate these risks and preserve property values, thus stabilising financial markets.

## **An evolving EU legislative context at the EU level: The main changes brought about by the revised directives for energy efficiency and the building sector**

With the Renovation Wave strategy, the Commission has set the ambition of doubling renovation rates, associated with key principles for the building sector.<sup>8</sup> This has been translated into revised pieces of legislation, part of the Fit for 55 package. Most notably, the Energy Efficiency Directive (EED) and Energy Performance of Buildings Directive (EPBD) revisions were agreed in 2023 and 2024 respectively, offering new standards and requirements that will impact the building sector.

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<sup>2</sup> Guidehouse Germany, [Energy security impacts of renovating the EU's worst performing buildings](#), *Synergi*, accessed 30 August 2024.

<sup>3</sup> Flaminia Bonanni, Vilislava Ivanova, [Decarbonised buildings: the foundations for a prosperous EU](#), *E3G*, 3 July 2024.

<sup>4</sup> Eurostat, [Inability to keep home adequately warm - EU-SILC survey](#), *Eurostat*, last updated: 30 August 2024.

<sup>5</sup> Buildings Performance Institute Europe, [Building Renovation: a kick-starter for the EU economy](#), *Renovate Europe*, 10 June 2020.

<sup>6</sup> European Climate Foundation and the European Heat Pump Association, [Europe's leap to heat pumps the socio-economic and climate benefits unlocked by a fast heat pump roll-out](#), *European Climate Foundation*, April 2023.

<sup>7</sup> European Central Bank, [Risks from misalignment of banks' financing with the EU climate objectives](#), *European Central Bank, Banking supervision*, January 2024.

<sup>8</sup> European Commission, [COMMUNICATION FROM THE COMMISSION TO THE EUROPEAN PARLIAMENT, THE COUNCIL, THE EUROPEAN ECONOMIC AND SOCIAL COMMITTEE AND THE COMMITTEE OF THE REGIONS. A Renovation Wave for Europe - greening our buildings, creating jobs, improving lives](#), *EUR-Lex*, 14 October 2020.

The revised EED<sup>9</sup> lays down rules for implementing energy efficiency as a priority across sectors. It includes key provisions for reducing energy consumption by 11.7 per cent by 2030 compared to 2020. While this is a binding objective at the EU level, meaning that EU countries must collectively ensure this level of energy savings, the directive also includes indicative national contributions.

Specific rules are set in order to make sure this objective can be achieved, such as the obligation to reach increased annual energy savings, which will gradually increase from 0.8 per cent in 2023 to 1.9 per cent by 2030. Given the important contribution of the building sector in terms of energy consumption, renovating buildings will play a key role for Member States in achieving the objective. The directive does recognise the importance of the sector and includes specific requirements, in particular for public buildings. Indeed, citing the exemplary role of the public sector, Member States will have to ensure that at least 3 per cent of the total floor area of heated and/or cooled buildings owned by public bodies is renovated every year. In addition, the combined energy use of public bodies will have to decrease by 1.9 per cent each year in every Member State.

Actions on building will also be necessary in order to comply with the requirement to alleviate energy poverty, as the directive includes an obligation to deliver a share of end-use energy savings to people affected by energy poverty, vulnerable customers and low-income households.

Regarding finances, the directive asks Member States to facilitate the establishment of financing facilities for energy efficiency improvement measures. In particular, it requires countries to adopt measures that promote energy efficiency lending products, and to facilitate the implementation of on-bill and on-tax financing schemes.

Complementing the EED in some respects, and adding specific requirements for the building sector, the recast EPBD<sup>10</sup> sets renewed standards and obligations for increasing the rate of building renovation with the aim of achieving a fully decarbonised building stock by 2050.

Firstly, it sets targets for the general renovation of building stocks, using different approaches for residential and non-residential buildings. For non-residential building, the directive introduces gradual minimum energy performance standards (MEPS), based on national thresholds, to trigger the renovation of the worst-performing buildings. Member States will have to renovate the 16 per cent worst-performing non-residential buildings by 2030, and 26 per cent of them by 2033. For residential buildings, the directive sets a binding target to improve the energy performance of the national residential building stock by 16 per cent by 2030 in comparison to 2020, and by 20–22 per cent by 2035. Member States will have to elaborate on those trajectories in national building renovation plans.

The directive also sets new standards for individual buildings. For instance, it proposes the gradual deployment of the use of solar technologies in new public and non-residential buildings until 2029, and in certain existing non-residential buildings where technically and economically feasible. It also enhances the standards for Zero Emission Buildings (ZEB), i.e. buildings with very high performance and requiring no or very low amounts of energy, producing zero on-site carbon emissions from fossil fuels and GHG. All new public

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<sup>9</sup> European Parliament and the Council, [Directive \(EU\) 2023/1791 of the European Parliament and of the Council of 13 September 2023 on energy efficiency and amending Regulation \(EU\) 2023/955](#), *EUR-Lex*, 13 September 2023.

<sup>10</sup> European Parliament and the Council, [Directive \(EU\) 2024/1275 of the European Parliament and of the Council of 24 April 2024 on the energy performance of buildings](#), *EUR-Lex*, 8 May 2024.

buildings will need to be ZEB as of January 2028, and all new buildings as of 2030. Fossil fuel boilers will also be gradually phased out, starting with the end of subsidies to stand-alone fossil boilers from 1 January 2025, with a view to a complete phase-out of fossil boilers by 2040.

The directive also aims to create a stable environment for investment decisions, and to enable consumers and businesses to make more informed choices in order to save energy and money. Member States will have to make information and devices available to consumers, in particular through enhanced energy performance certificates, the introduction of building passports, and the requirement to put one-stop shops in place for homeowners and SMEs.

Lastly, the directive requires Member States to make the funding available with appropriate financing to address market barriers. Specifically, it asks them to use revenue-based parameters to address barriers to upfront costs, take regulatory measures to remove non-economic barriers to building renovation (removing unanimity requirements in co-ownership structures or allowing such structures to be direct recipients of financial support), and promote the deployment of private funds and tools (loans, mortgages, energy performance contracting, fiscal incentives, and other tools).

In addition to those two key texts, other pieces of legislation mention standards for the building sector. For instance, the Renewable Energy Directive (RED)<sup>11</sup> sets an indicative target of at least a 49 per cent share of renewable energy in the building sector's final energy consumption in 2030. It mandates Member States to introduce appropriate measures to increase the share of electricity, heating, and cooling from renewables, and also insists on the exemplary role of public buildings in achieving this objective.

## Overview of EU funds for energy efficiency and building renovation and their link with EU legislation

The EU provides a variety of funds to support the implementation of the European Green Deal and its effort to transform Europe into the first climate-neutral bloc by 2050. This includes support to increase energy efficiency, with multiple co-financing programmes and funds designed to leverage private and public investments. All EU funding programmes do refer to the pieces of legislation mentioned above, as a way of helping their implementation and making sure the support is aligned with the regulatory framework.

The Recovery and Resilience Facility (RRF) is the flagship programme for helping Member States recover from the COVID-19 pandemic and build more resilient economies. With a total budget of EUR 800 billion available in the form of both grants and loans for the 2020-2026 period, it is a key source for Member States to utilise when investing in the energy transition, particularly in energy efficiency and buildings. Overall, it dedicates EUR 81.5 billion for energy efficiency in buildings, comprising EUR 45 billion for private buildings, EUR 22.5 billion for public buildings, and EUR 13.5 billion for the construction of new buildings.<sup>12</sup> It is used extensively by Member States for renovating buildings, with 26 countries opting for energy efficiency measures in their recovery plans, sometimes at high levels. For instance, the Romanian National Recovery and Resilience Plan (NRRP) allocates EUR 4.7 billion for renovation, representing 16.2 per cent of the total RRF allocation. In

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<sup>11</sup> European Parliament and the Council, [Directive \(EU\) 2023/2413 of the European Parliament and of the Council of 18 October 2023 amending Directive \(EU\) 2018/2001, Regulation \(EU\) 2018/1999 and Directive 98/70/EC as regards the promotion of energy from renewable sources, and repealing Council Directive \(EU\) 2015/652](#), *EUR-Lex*, 31 October 2023.

<sup>12</sup> European Commission, [Recovery and Resilience Facility for clean energy](#), *European Commission*, accessed 1 August 2024.

Bulgaria, EUR 1.3 billion is earmarked for energy efficiency in buildings, that is to say 20.1 per cent of the entire RRF allocation.

Cohesion Policy, aimed at stimulating the development of regions and Member States and reducing disparities among territories with key funds such as the European Regional Development Fund (ERDF), the Cohesion Fund, and the Just Transition Fund, is also instrumental in investing in energy efficiency. With the green transition being one of the five objectives of the policy, investments in energy efficiency in buildings are indicated as a specific set of outputs. Studies<sup>13</sup> estimate that EUR 20 billion is earmarked in energy efficiency investment based on allocation in the various programmes. With national co-financing, this is up to EUR 29 billion for the sector.

The Modernisation Fund, aimed at helping 13 low-income Member States to modernise their energy systems, with revenue from the EU Emission Trading Scheme (ETS), is another important source of funding for investments in the energy transition, particularly in central and eastern Europe. Managed by the European Investment Bank and an investment committee composed of representatives of the Member States and the European Commission, its total revenues amount to EUR 57 billion from 2021 to 2030. Eighty per cent of the fund must be spent in five priority investment areas, one of them being specifically for reducing overall energy use through energy efficiency. The relevant Member States widely use this fund for renovating buildings, particularly public ones.

The upcoming Social Climate Fund, also funded by ETS revenues, will also provide important funding for energy efficiency investments by proposing specific measures targeting households and SMEs affected by the inclusion of the building and road transport sector into the ETS. With a budget of EUR 65 billion (depending on the carbon price) and up to EUR 86 billion with national co-financing for the 2026–2032 period, it will aim to provide support that includes structural measures and investments in energy efficiency and building renovations, clean heating and cooling, and the integration of renewable energy.

Those funds are crucial for supporting Member States in carrying out the building renovation programmes needed and ensuring the business environment can be conducive to investments in the sector. As such, and given their magnitude in some countries, the funds are absolutely needed in order to comply with EU legislation.

The EED and EPBD do recognise the importance of the funds. The EED encourages Member States to ‘make full use of the European funds available to trigger private and public investments in energy efficiency improvement measures’, while the EPBD asks Member States ‘to make best cost-effective use of national and EU financing. Those funding sources shall be deployed consistently with a path to achieving a zero-emission building stock by 2050’.

Some details on how public funding should concretely be used is available in the legislation itself. As stated above, the EED has a specific article on the financing provisions with requirements for Member States to facilitate financing facilities, including with the use of EU funds. Likewise, it offers the possibility of setting up national energy efficiency funds to support Member States in meeting their national energy efficiency contributions. Such funds can be capitalised through national or EU financing. The EPBD has hinted at possible ways of handling energy efficiency schemes. For instance, it asks Member States to link financial

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<sup>13</sup> E3G, Renovate Europe, [2021-2027 Cohesion Policy Support for Energy Efficiency and Building Renovation](#), *Renovate Europe*, April 2023.



measures for energy performance to the targeted or achieved energy savings and improvements, using key criteria such as the energy performance of equipment (which is to be installed by a fitter with the relevant level of certification and shall comply with the minimum energy performance requirements), standards values for the calculation of energy savings, improvement achieved by comparing performance certificates before and after, the results of energy audits, etc. The directive goes on to require Member States to incentivise deep renovation with higher financial, fiscal, administrative and technical support. It also demands that financial incentives be targeted primarily at vulnerable households and people affected by energy poverty.

The directive also makes an exception for EU funds in the ban against subsidies for fossil fuels. In accordance with the rules enshrined in Cohesion Policy, financing fossil fuel boilers remains possible until the end of 2025, extending the eligibility for one year compared to the new provisions of the EPBD.

Beyond the legislation, the European Commission provides guidance and recommendations about how Member States should implement the financing provisions of the EED,<sup>14</sup> in particular by maximising the use of EU funds to facilitate the combination of grants and financial instruments. Likewise, it has issued recommendations on how to tackle energy poverty, including by making use of the available EU funding ‘through means-tested and tailor-made energy efficiency support schemes and schemes allowing households affected by energy poverty to access collective self-consumption schemes’.<sup>15</sup>

## **EU funds in practice: How funds are used to renovate buildings and how to maximise their impact**

Deploying EU funds for energy efficiency and building renovation remains largely in the hands of Member States. National authorities have the power to concretely define how to apply programmes and how to allocate the funding through specific calls for proposals.

Practices vary greatly depending on national contexts, legislation, capacities and experience. EU funds are usually a catalyst in the design and implementation of programmes that have the potential to support homeowners and tenants in their efforts to live in better homes and save energy and money, while also relying on sustainable sources. But shortcomings exist in all countries and prevent the effective use of public funds.

This can be linked to a combination of reasons. The following sections contain information on a set of factors that can help in triggering successful measures.

### **A long term-vision for building renovation backed by sufficient planning capacities for programme operation**

Countries should strive to set up and implement a financial framework that incentivises effective energy savings. This should be rooted in a long-term policy with financing schemes designed accordingly, in order to send a strong signal to beneficiaries.

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<sup>14</sup> European Commission, [Commission recommendation of 12 December 2023 on transposing Article 30 on national energy efficiency funds, financing and technical support of the Directive \(EU\) 2023/1791 on energy efficiency \('EED recast'\)](#), *EUR-Lex*, 19 December 2023.

<sup>15</sup> European Commission, [Commission Recommendation \(EU\) 2023/2407 of 20 October 2023 on energy poverty](#), *EUR-Lex*, 23 October 2023.

Some countries have put long-lasting flagship programmes in place with specific objectives and conditions for building renovation:

- The New Green Savings programme<sup>16</sup> in the Czech Republic, targeting family houses and apartment buildings, focuses on reducing the energy consumption of residential buildings (through insulation), supporting the construction or purchase of houses with very low energy consumption, environmentally friendly heating methods, renewable energy sources. The programme is funded by the Recovery and Resilience Facility (RRF) until 2026, and will then be funded by a share of the revenues from the auctioning allowances under the EU ETS. The expected allocation of the programme is at least EUR 1.5 billion; the final amount will depend on a number of factors, such as the price of emission allowances.
- The Clean Air Programme<sup>17</sup> is the main scheme supporting building renovation and heat source replacements in single-family houses in Poland. Aiming at reducing energy consumption and sources of air pollution, it has a budget of EUR 24 billion until 2029 (partly coming from recovery and cohesion funding), and provides three levels of support based on household income.

Conversely, many countries have sparser funding, with various measures spread across programmes and limited in time. In some countries, a large number of schemes are in place, each with a specific scope or objective, e.g. for a type of work (insulation versus heating decarbonisation or renewable integrations), for a type of house (blocks versus single houses), or even for a specific geographical location, and sometimes with limited coordination and responsibility spread across various institutions. This can create confusion for beneficiaries, as well as for managing problems, with schemes sometimes running in parallel with different conditions, or competing with each other, without a helicopter view of their impact on achieving an energy efficiency target.

For instance, in Romania, schemes for energy efficiency are provided with the support of cohesion programmes and the RRF (in particular, the recently added REPowerEU chapters), but most of those financing schemes do not apply the same co-financing rules, as in some cases the beneficiaries (homeowners associations) must contribute financially, at different percentages, based on decisions taken by the local authorities. In Poland, as mentioned above, the Clean Air Programme is the main scheme, operated by the National Fund for Environmental Protection and Water Management, targeting single family buildings; but another programme, Stop Smog, runs in parallel with similar interventions through local authorities. Shown as complementary, these dual systems remain confusing for those not specialised in energy efficiency issues.

Another factor hampering the good management of funds is related to the lack of stability of the programmes and changes in criteria during their implementation. In Italy, the government introduced a Superbonus for the renovation of buildings.<sup>18</sup> Funded by the RRF with EUR 13.95 billion, the scheme consists of applying a tax deduction of 110 per cent of the expenses incurrent from energy efficiency renovations. This was reduced to 90 per cent in February 2023 with immediate effect due to its strong impact on public finances, casting doubt on the programme targeting 100,000 buildings. Applying some of the conditions (e.g. its extension to poorer

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<sup>16</sup> Czech Government, [The New Green Savings Programme](#), *Citizen Portal*, accessed 1 August 2024.

<sup>17</sup> Government of Poland, [“Clean Air 2.0” Programme launched](#), *Website of the Republic of Poland*, 14 May 2020.

<sup>18</sup> Italian Government, [Strengthening the Ecobonus for energy efficiency](#), *Italian Government*, accessed 1 August 2024.

households) is left at the discretion of local administrations, which adds some arbitrariness in the way the scheme is operated.

Management issues have also occurred in Bulgaria, where the authorities applied a different level of support for the programme for multi-family building renovation, from 100 per cent for the first call to 80 per cent for the second call. As a result, interest from applicants dropped once the change was instituted. In parallel, the allocation of another scheme for building renovation decreased 4.7 per cent compared to the initial budget, due to technical errors and incorrect unit cost calculation, leading to a 14 per cent reduction in the number of buildings renovated, while a huge number of buildings were on the reserve list.

A lack of competency on the part of managing authorities in charge of decision-making is likely to impact the quality of the measures or even prevent renovations from happening. This is especially true when the funding is delayed and payments to beneficiaries are delayed, which is extremely problematic, particularly since the sector is also facing price hikes. This can lead to beneficiaries cancelling contracts or suppliers going bankrupt. The lack of predictability and poor long-term planning in renovation programmes can significantly impact their quality.

Authorities should strive for a continuous, uninterrupted renovation programme in which the general rules are stable so that applicants can have clarity and prepare applications promptly. This can also help in avoiding delays in absorption. Moreover, there should be a clear regulatory framework that makes energy savings appealing. This can sometimes be lacking; in Hungary, for instance, a price cap for energy for end-users was introduced in 2013 and is still in place today, although it was reduced in 2022<sup>19</sup>. This only limitedly encourages households (mainly above-average energy consumers) to carry out renovation work in order to save energy.

On top of this, Member States should strive to enable behavioural changes in implementing the new provisions of the EPBD, such as the Mandatory Energy Performance Standards or the integration of solar energy. Studies have shown that citizen-led initiatives such as energy communities have the potential to save around 10 per cent of energy due to behavioural change.<sup>20</sup> Countries should therefore strengthen the enabling framework to incentivise, support and democratise energy renovation, by including citizens-led renovations in their framework for energy communities.

### High-ambition programmes focusing on deep renovation and phasing out fossil fuels

Another key factor for impactful programmes is to ensure that measures result in strong energy savings gains, by focusing on deep renovation associated with criteria ensuring performance is met.

Some countries do have specific calls for proposals with safeguards for deep renovation. There is no definition of deep renovation, but it is agreed that a proxy of 60 per cent primary energy savings is needed to be considered as deep renovation.<sup>21</sup> Country experience show a variety of practices. The Polish Clean Air Programme can be cited as a good example as it includes mandatory energy audits for deep renovation. Others have similar requirements but in a limited way. An example is the Romanian Renovation Wave Fund,

<sup>19</sup> Atlatszo, [Compared to the miserable wages, capped household energy prices are still expensive for average Hungarians](#), *Atlatszo*, 21 October 2022.

<sup>20</sup> REScoop.eu, [REScoop.eu briefing on the recast EPBD](#), *REScoop.eu*, 20 August 2024.

<sup>21</sup> Buildings Performance Institute Europe, [Deep renovation: Shifting from exception to standard practice in EU policy](#), *Buildings Performance Institute Europe*, November 2021.

with EUR 255 million available<sup>22</sup> to be invested in projects with energy savings larger than 60 per cent. Nonetheless, within this scheme, the largest share of funding available only requires a minimum of 30 per cent primary energy savings. Such a level of savings is quite common. For instance, in Hungary under the new RRF supported Home Renovation Programme launched in summer 2024, a similar level of minimum 30 per cent primary energy savings is required. This scheme was introduced as a result of the less than originally planned RRF funds allocated to it, so the government decided to support more households but with minimal energy renovation. The programme however gives a 5 per cent grant bonus to energy renovations reaching 40 per cent or more energy savings. Moreover, making the level of support contingent on increased energy performance does not always happen. Home renovation support is also available in Hungary for families with children, but without a prerequisite for increased energy performance.

Weak criteria is a general critique of home renovation schemes. Under the Superbonus in Italy, a certified improvement of only two energy classes is required, and using the deduction to renovate second homes and to install gas boilers is still permitted. This issue of fossil fuel eligibility is problematic and stems from the rules from EU funds. Because of these loopholes in the regulations for both the RRF and Cohesion Policy, multiple countries are using EU funds for financing fossil fuel boilers in building renovation programmes. This is the case in Poland (Clean Air Programme), in Hungary (energy efficiency investment in public buildings under the RRF, with a limit of 20 per cent of the envelope, and the Home Renovation Programme can also support modernisation of gas boilers until 2026 if contracted until the end of 2024), and in Slovakia (with the RRF-funded Renovate House scheme).<sup>23</sup>

### **Making the funding affordable and accessible for those who need it most**

Low-income households are usually the ones that primarily need funding, as they live in the low-performing buildings. But renovating homes can be very costly and unaffordable for certain households, even with a subsidy dedicated to vulnerable ones. It is therefore crucial to calibrate the support according to the needs of the beneficiaries.

Some countries are unfortunately still ignoring those needs and are not providing measures targeting vulnerable groups as specific beneficiaries. This is the case in Bulgaria, due to a lack of data on the number of households in an energy poverty situation. But this is also because there is simply no support for renovating single family homes, a conscious decision from authorities, since for an identical investment per square metre of living space, the effect of investment in multi-family buildings is greater due to their compact volume. This excludes households in rural and suburban areas, where the level of energy poverty is higher than in urban centres. The cost of insulating the house and replacing the windows can sometimes exceed the cost of the building itself, making investment decisions unachievable without the necessary support.

Other countries have set schemes that can target such households but fail to actually reach those with the most pressing needs. In Hungary, the Solar energy Plus programme funded by the RRF for the installation of solar panels and heating modernisation was meant for lower income households. In practice, it is more suitable for the middle or above class. This is due to the design of the financing schemes, which typically

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<sup>22</sup> European Commission, [Case study on the green transition: Energy efficiency in buildings](#), European Commission, European Commission, accessed 1 August 2024.

<sup>23</sup> Government of Slovak Republic, [Recovery plan](#), Government of Slovak Republic, accessed 1 August 2024.

require residents to provide upfront funding for projects before receiving support, which is given only or mostly after implementation.

Similarly, in Estonia the RRF reconstruction measure for individual houses<sup>24</sup> can benefit the middle class instead of vulnerable households, because the support rates for deep renovation depend on residents' location, not income levels. For deep renovation, 30 per cent of state support is foreseen for residents based in the two biggest and wealthiest cities, Tallinn and Tartu; 40 per cent for bordering parishes; and 50 per cent for the rest of Estonia. This poses a risk of having a negative effect on tackling energy poverty – middle class families can qualify for higher support when they reside outside of Tallinn and Tartu. On a positive note, there is a separate apartment building reconstruction scheme for Ida-Virumaa<sup>25</sup> – a mining region known for its poor living conditions for residents, as well as the lowest incomes. The current scheme offers a 70 per cent level of support financed by the Just Transition Fund. While this is a necessary initiative that can encourage locals' willingness to invest in renovation, the funding is limited, with only EUR 15 million available, which can support an estimated 18 apartments, distributed on a first come, first served basis. This limited pot of available money will create uncertainty for beneficiaries if the funding is not continued, and it should therefore urgently be topped up with additional financing, especially from the Cohesion Policy funds and Social Climate Fund.

In Latvia, given that the heating costs are relatively low, the financial support provided may be insufficient or un motivating compared to the overall expenses involved, which means that citizens under a financial strain are unable to benefit from the programmes.

There are, however, good practices of programmes dedicated to vulnerable groups, which set a higher level of support, with upfront payment and technical assistance. This is the case with the New Green Savings Light programme<sup>26</sup> in Czechia, which targets low-income households. Around CZK 6 billion was disbursed in 2023 and further funds are available under the HOUSENERG programme, which is part of the Modernisation Fund. The programme focuses on disadvantaged households by financing a variety of works (insulation of façade, roof, ceiling and floor, replacement of entrance doors and windows) with a subsidy of up to EUR 6 300. A subsidy of up to EUR 3 800 is also possible for solar water systems. Applicants receive an advance subsidy before the start of the building work, and the amount of the subsidy can be up to 100 per cent. It is therefore well suited for vulnerable households that do not necessarily have the savings to cover initial investments in advance. The programme also funds a free advice network in the country. While it is an important programme for vulnerable households, it has certain limitations, as it does not currently cover comprehensive energy renovations such as total house insulation or the installation of solar panels on roofs, which are crucial for effectively addressing energy poverty.

In Poland, the level of support for the Clean Air Programme depends on the beneficiary's situation, and three different levels are provided based on household income. For example, PLN 66 000 (approximately EUR 15 400) is provided to wealthier households and PLN 135 000 (approximately EUR 31 500) to poorer households. For this latter category, upfront payment to incentivise building renovation for most vulnerable groups is also

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<sup>24</sup> KredEx, [Reconstruction grant for small residences 2024 RRF](#), KredEx, accessed 1 August 2024.

<sup>25</sup> KredEx, [Reconstruction grant Ida-Virumaa](#), KredEx, accessed 1 August 2024.

<sup>26</sup> State Environmental Fund of the Czech Republic, [New Green Savings Programme](#), State Environmental Fund of the Czech Republic, accessed 1 August 2024.

included. However, the programme still faces barriers, as it lacks full pre-financing and additional assistance that would be needed to reach households in energy poverty.

In Slovakia, a new scheme ‘Renovate House Mini’ (funded by the RRF) supports families in risk of energy poverty and in the areas with highest air pollution. They can also get partial pre-financing of the EUR 10 000 grants per renovation. Moreover, a new scheme ‘Green Solidarity’ (financed by cohesion policy) was introduced in summer 2024.<sup>27</sup> It aims to support solar, photovoltaic systems and biomass boilers with up to 90 per cent of financing for low-income households.<sup>28</sup> These schemes contribute well to addressing energy poverty and air pollution issues, but more funds are needed as well as consistency with other social measures.

### Make funding efficient in order to leverage private and innovative financing

Differentiating the level of funding is necessary to target poorer households, but it’s also a question of the efficiency of public money. This is particularly relevant for building renovation programmes, as the financing needs are considerable. At the EU level, the Commission estimates that in order to achieve the proposed 55 per cent climate target by 2030, around EUR 275 billion of additional investments are needed per year.<sup>29</sup> Yet public funding is limited, and it is important to ensure that it is spent efficiently in order to maximise its impact. In particular, moving away from high levels of grants, irrespective of the situation of the beneficiary, is recommended, as current practices are hampering the efficient use of funds. For instance, the Romanian Renovation Wave fund relies on 100 per cent grant, requiring substantial public funding and creating dependencies or high expectations of government support. In Hungary, the current cycle of EU Funds (RRF and cohesion programmes) allocated for household’s energy renovation is only enough for 60,000 flats/houses till 2029, while at least three million houses need to be renovated, which asks for a wiser allocation and use of public finance for building renovation. In Slovakia, the ‘Renovate house’ programme will support roughly 30,000 houses when more than 481,000 need renovation,<sup>30</sup> so it is crucial to leverage private and innovative financing

Many programmes have a strong impact on public finances while having too little of an effect on energy savings. For instance, the above-mentioned Italian Superbonus contains weak criteria for energy performance, but also strains public finances (as it costs EUR 112 billion). It also has an impact on debt with delayed effect, to be felt over the next three years, with an estimated annual burden of around EUR 40 billion from 2024 to 2026.<sup>31</sup>

That is why it is important to put an innovative and more complex system in place, with the capacity to attract private financing. A combination of loan and grant support is an example of this and is in place in Hungary to improve the energy efficiency of residential buildings. This works relatively well, since it differentiates

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<sup>27</sup> Slovenská agentúra životného prostredia. ‘[Obnov Dom Mini](#)’, Slovenská agentúra životného prostredia, accessed 3 September 2024.

<sup>28</sup> Slovenská inovačná a energetická agentúra, ‘[Projekt Zelená domácnostiam bude spravodlivejší. V Zelenej solidarite prinesieme podporu nízkopríjmovým domácnostiam až vo výške 90 % oprávnených nákladov - SIEA](#)’, 27 June 2024.

<sup>29</sup> European Commission, [COMMUNICATION FROM THE COMMISSION TO THE EUROPEAN PARLIAMENT, THE COUNCIL, THE EUROPEAN ECONOMIC AND SOCIAL COMMITTEE AND THE COMMITTEE OF THE REGIONS. A Renovation Wave for Europe - greening our buildings, creating jobs, improving lives](#).

<sup>30</sup> Štatistický úrad Slovenskej republiky. ‘[Sčítanie Obyvateľov, Domov a Bytov 2021](#)’, Štatistický úrad Slovenskej republiky, accessed 3 September 2024.

<sup>31</sup> Alessia Peretti, ‘[Oxford Economics blasts Italy’s ‘Super Bonus’ tax scheme](#)’, *Euractiv*, 11 April 2024.

according to the income level of beneficiaries and potential energy savings (although it does not include criteria for reaching the most vulnerable and fails to encourage deep renovation).

An innovative solution for the better use of public funding resides in Energy Performing Contracts (EPC). EPC are ‘contractual arrangements between the beneficiary and the provider of an energy efficiency improvement measure, where the works, supply or service are paid in relation to a contractually agreed level of energy efficiency improvement or another agreed energy performance criterion, such as financial savings’.<sup>32</sup> The key advantage of EPC compared to traditional renovation works contracts is that the EPC client pays for energy and/or cost savings and not for equipment. But these are complex to handle, and in the case of the deep renovation of buildings, energy savings are usually not sufficient to repay the investment and operational costs within a timeframe that is acceptable to EPC providers and third-party financiers. This is why those projects often need a grant, something that EU funds can provide; but there can be difficulties in combining EPC with Cohesion Policy funding, especially for smaller, local EPC providers that have difficulties in securing long-term financing. Moreover, there is a lack of awareness, understanding and trust in EPC compared to a traditional contract. As a result, EPC plays only a minor role in the renovation of public and private buildings. However, there are good examples of EPC experiences, in particular in Czechia, with high-quality projects, standardisation of business models and contracts, and the availability of debt and grant financing with support from Cohesion Policy funding.<sup>33</sup>

## Conclusion and recommendations

Funding for building renovation and energy efficiency needs to be enhanced in order to align with the new regulatory framework stemming from the recast of the EED and EPBD. Current practices of using EU funds for dedicated programmes show there are still shortcomings, preventing a full use of EU funds that is sufficiently impactful. Based on these, the following recommendations can be made to increase the impact of publicly funded programmes for building renovation:

- Set a coherent, stable, and foreseeable support schemes with dedicated calls for proposals enshrined in clear regulatory framework that is enticing for energy savings and behavioural changes (including by promoting citizen-led initiatives), and is backed by managing authorities’ strong policy coordination and capacity;
- Boost EU funded programmes with revenues from ETS and future revenues from ETS 2 to scale up existing support schemes;
- Design calls for proposals suitable for deep renovation and allowing for decarbonisation of the building stock by removing support for fossil fuels and ensuring safeguards are in place to monitor energy performance and gains in energy savings;

<sup>32</sup> European Parliament and the Council, [Directive \(EU\) 2023/1791 of the European Parliament and of the Council of 13 September 2023 on energy efficiency and amending Regulation \(EU\) 2023/955](#), EUR-Lex, 13 September 2023.

<sup>33</sup> European Commission, European Investment Bank, [Implementing Energy Efficiency projects via Energy Performance Contracting with support from ERDF financial instruments in Poland](#), *fi-compass.eu*, November 2023.

- Adapt the level of support to beneficiaries' needs with specific conditions for households in vulnerable situations and facing energy poverty through higher grants and upfront payment, as well as additional assistance and support via one-stop shop;
- Ensure an efficient level of public support leveraging private funding and making use of financial instruments and energy performance contracting to alleviate the impact on public finances.



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