



# The Beauty of What Already Exists

The contribution of renovation and repurposing to affordable energy-efficient homes

Emily Bankert and Hélène Sibileau, Buildings Performance Institute Europe

Policy Brief November 2025

Expert contributions from: Anna Bajomi (FEANTSA); Lars Breckenfelder, (Solar Power Europe); Benedetta Buccolini (ICLEI Local Governments for Sustainability); Etienne Charbit (réseau Cler); Marine Cornelis (Next Energy Consumer); Roxana Dela Fiamor (E3G); Esteban Gas (Solar Heat Europe); Florent Marcellesi (former Green MEP); Sophia Pena Pereira (BEUC); Simona Suardi (Greens/EFA), Tom Vasseur (Cool Heating Coalition)

#### Introduction

EU citizens spend a lot of time indoors. Buildings are where we create memories, shape our careers and find shelter. That makes buildings a kind of bedrock for individual wellbeing and societal prosperity. However, the energy crisis of 2022 and the ongoing housing crisis have turned what should give us dignity and quality of life into a source of financial pressure and psychological distress for many EU citizens.

Buildings and housing are central to most Europeans' personal experience of the energy transition. The home is where many are most directly confronted with the rising cost of energy when they read their energy bills. About 40% of the energy consumed in the EU and 50% of the EU's fossil gas consumption is buildings-related. While focusing, rightly, on reducing demand and improving energy efficiency, the EU has set a target of 49% of the energy used by buildings by 2030 coming from renewable energy.

Approximately 80% of today's buildings will still be standing in 2050. Not only are three quarters of this stock energy-inefficient (Zahgheri et al., 2020), but an average of 16% of EU citizens live in housing that could be deemed unfit for habitation (Eurostat, 2025a). What's more, increasingly extreme weather is exposing the reality that most buildings were not designed or built to adapt to the worsening climate crisis. This physical vulnerability and inefficiency make financial burdens harder to bear, undermining the capacity of buildings to let people live in health and comfort and to shield a prosperous economy, today and in the decades to come.

Resilient buildings are buildings that are affordable over the long term for individuals and society. They are quality buildings built, renovated or repurposed to provide healthy, climate-adapted, fully renewable-based and energy-efficient homes to EU citizens.

They make societies less dependent on imported energy, less exposed to volatile energy prices and better protected from high healthcare and climate disaster damage costs.

This policy brief focuses on the potential of *what already exists* to deliver resilient buildings and improve citizen participation in the energy transition in Europe. It shows how citizen-centred renovation and repurposing of the existing building stock can be at the heart of the upcoming European Affordable Housing Plan and Citizens Energy Package.

# State of play: Buildings in an energy, climate and housing crisis – the case for renovation and repurposing

High-quality affordable housing is about more than the cost of renting or buying a home. It is about the cost of living in it in a world increasingly marked by crises. A truly affordable and resilient home also protects households from energy poverty, stabilises energy bills, improves indoor comfort, and shields residents from increasingly extreme weather. Renovating the many inefficient homes in the EU to turn them into **healthy** and **climate-adapted** ones with a high **energy performance** is one of the most powerful levers available to save money over the long-term, for both citizens and wider society, and is a way for citizens to directly participate in and directly benefit from the energy transition. It can lead to:

- Better use of energy. Space heating typically accounts for 64% of household energy consumption (Lapillonne, Raji, 2024) in buildings. Of the energy used for heating and cooling, over 70% still comes from fossil fuels (Eurostat, 2025b). Renovating a building reduces the use of gas for heating by 44% and overall final energy demand by 45% (Buildings Performance Institute Europe 2022a). Improvements in energy efficiency between 2000 and 2023 have already led to significant savings, without which final consumption in 2023 would have been 29% higher and the average EU household would have spent an additional €540 on energy (Lapillonne, Raji, 2025). Phasing out fossil heating could help Europe cut its gas import expenditures by 15 billion euros in 2030 and 43 billion euros in 2050 (European Climate Foundation, 2022).
- Better health. Resilient buildings can avoid the costs of poor mental and physical health linked to poor-quality housing, and they can also better withstand severe weather. One in four Europeans live in buildings with indoor air quality below national standard (Dorizaz et al., 2024), with solid fuel heating being a major contributor to air pollution. Some research suggests that the cost of general repairs to all of the EU's inefficient housing stock can be recouped within two years, and the savings in comparable societal benefits, such as fewer sick days or fewer hospital visits, would amount to €194 billion (Ahrendt et al., 2016).
- Better protection from climate impacts. Europe is warming twice as fast as the global average. 86-91% of fatalities caused by climate-related extreme events are due to heat waves (European Environment Agency, 2022). Given that Europeans spend 80-90% of their time indoors, a resilient building can significantly reduce heat stress. However, most of the EU's building stock was built before thermal standards were introduced and cannot handle the new higher temperatures. Coolconscious energy renovations let households stay safe in heatwaves and lessen the need for air conditioning. These cost savings also matter on a macroeconomic level; EU economic losses amounted to €208 billion between 2021 to 2024 (European Environment Agency, 2025), which is more than 26 times the EU budget for the European Defence fund of €8 billion for 2021-2027.

systemic affordability Core Affordability HEALTH **ENERGY** Can I pay my Energy security, Saved healthcare rent? Independence from system costs Can I pay my energy imports mortgage? Indoor air quality, comfort, mental health CLIMATE **ADAPTABILITY** Protection from climate

Figure 1: The benefits of a resilient buildings approach for long-term affordability

Avoided repair and

insurance costs

#### Renovation rates are too low

Despite the clear added value of resilient buildings for both short and long-term affordability, at individual and systemic level alike, annual renovation rates in the EU are alarmingly low, at 1% (Buildings Performance Institute Europe, 2022b). Emissions from building energy use fell by only 15% between 2015 and 2022, barely half of what is needed to meet the EU's 2030 target (Buildings Performance Institute Europe, 2024). Building renovation investments reached only 61% of the 2015–2022 target. The limited public funds that are made available are not targeted where renovations are most needed.

impacts (extreme heat,

flooding, heavy rain)

### The Energy Performance of Buildings Directive (EPBD) provides a clear pathway to improving renovation rates

European policymakers have identified this shortfall and have put in place ambitious regulation to tackle it. The most important EU legislation for access to building renovation and renewable heating and cooling (H&C) is the 2024 EPBD (Directive (EU) 2024/1275), which provides a solid framework for accelerating renovation in buildings. Fifty-four percent of the stock of empty homes in Europe were built between 1961 and 2000, and to meet legal standards of the 2024 EPBD many of those buildings need energy renovations (FEANTSA, 2025). The EPBD also requires Member States to set standards that ensure a healthy indoor climate (Article 13§4) and to take into account indirect impacts on the environment and health. These externalities should be assessed through the cost-optimality method and by information about wider health and comfort benefits in National Building Renovation Plans (Article 3). Vulnerable households and the renovation of worst performing buildings should be prioritised.

Apart from clear legislative requirements, and given the high upfront costs of thorough renovations, support is also vital in ensuring that renovation can be accessible to all, in particular to lower-income groups. Support includes means-tested low- and zero-interest loans<sup>1</sup>, welfare-related schemes, and payment through energy bills. Table 1 gives examples of existing mechanisms at national and local levels.

Table 1: Support mechanisms for renovation

| Level                            | Mechanism  | Details   |
|----------------------------------|--|---|
| National -<br>Ireland            | Tiered funding support<br>for people in energy<br>poverty  | 'Better Energy Warmer Homes Scheme Ireland' <sup>2</sup> : Grants scaled to income, ambition or energy class of property; ensures more vulnerable recipients receive higher or full funding levels. Provides free energy upgrades for low-income homeowners who receive other specific welfare benefits. Co-funded by the Irish Government and the European Regional Development Fund (ERDF). Since 2022, the scheme prioritises low energy efficiency homes. It also covers free energy advice.                                    |
| Local -<br>Vilnius,<br>Lithuania | One-stop shop (OSS) support for citizens to access funding | The 'Amiestas' OSS <sup>3</sup> is a public non-profit institution from Vilnius that supports energy-efficient refurbishment. They accompany residents and contractors at every step and take care of financial applications. Low-income residents get additional financial support. If the apartment owner meets certain criteria and receives support for heating costs, then the State pays the renovation contributions or loan for them for the entire period (unless the financial situation of the apartment owner changes). |

# What is missing? Providing quality housing and enabling long-term affordability

The EU has in recent years moved to incentivise renovation and repurposing for resilient buildings, notably through the EPBD, but also by setting up support schemes. Different Member States, regions and local entities have developed effective policies. However, more is needed to meet the energy transition commitments and to fully tap into the potential of renovation and repurposing. In this chapter, we examine the remaining hurdles and gaps holding back an accelerated repurposing and renovation wave towards an inclusive and participatory European energy transition.

<sup>&</sup>lt;sup>1</sup> Means-tested grants fully covering up-front costs for lowest income groups, and sliding scale grants combined with zero-interest loans for lower-income groups.

<sup>&</sup>lt;sup>2</sup> For more information, see <a href="https://www.citizensinformation.ie/en/housing/housing-grants-and-schemes/grants-for-home-renovations-and-improvements/warmer-homes-scheme/">https://www.citizensinformation.ie/en/housing/housing-grants-and-schemes/grants-for-home-renovations-and-improvements/warmer-homes-scheme/</a>

<sup>&</sup>lt;sup>3</sup> For more information, see <a href="https://amiestas.lt/">https://amiestas.lt/</a> (website in Lithuanian)

## A resilience perspective on housing focused on long-term affordability

The conversation around the energy, climate and housing crises often lacks a holistic vision of affordable housing. All these acute crises require rapid action, but policymakers must avoid the pitfall of pushing quick fixes, such as poor-quality construction, that fail to recognise how the crises are linked and that risk increasing long-term costs. Adopting a resilient buildings approach places greater value on 'constructing to last' and on improving existing housing, which will reduce costs for individuals and governments in the long run. This reframes renovation policies as infrastructural investments into societal wellbeing, which includes energy security, protection from climate damages, and health, all of which reflect the wider benefits of investing in housing renovation.

#### A construction industry ready to renovate and repurpose

The construction industry could be a key pillar of European competitiveness if it were supported in focusing more on the existing building stock. Many vacant buildings are waiting to be repurposed into affordable housing and renovated to meet legal energy efficiency standards. In the construction industry, 88% of contractors report difficulties in finding skilled workers to handle retrofits (European Labour Authority, 2025). The skills gap is driven both by an ageing work force and by insufficient training in specialised skills. Other challenges include poor integration of modern systems into existing management and operational structures and the slow uptake of energy-efficient upgrades and other technologies that cut the cost of housing. Public procurement regulations that still favour lowest price over quality and innovation (such as prefabricated renovations) create a major barrier. Health and safety rules on materials in existing buildings (such as asbestos) add yet more complexity. The construction industry is still one of the most susceptible to fraud and abuse because of its widespread subcontracting networks, unreported work, and abuse of temporary employment agreements (European Trade Union Confederation, 2025). Together, these factors discourage construction companies operating on narrow margins and make it harder for public authorities to prioritise.

#### Enabling citizens to be part of the energy transition in their own house

In the EU, the potential to make the existing building stock and its occupants active players in the energy transition and to reduce costs is largely untapped. What is absent is a clear vision of how a resilient buildings approach fits into the political agenda on affordable housing, the energy transition, and the transformation of the construction sector.

Citizens need independent advice and support to take control of their homes – to understand their energy consumption, access renewable energy self-consumption and join renewable energy communities. This will help them cut their own energy bills and also speed up the energy transition, advance national climate and energy targets, and contribute to energy security by providing flexible demand and reducing dependence on fossil fuels.

### 2. Sufficient and stable funding to incentivise and enable citizens to repoyate their homes

Investment in building renovation continues to fall short, reaching just 61% of estimated needs to meet climate goals between 2015 and 2022. This persistent underinvestment risks making future renovations both more complex and more costly. The State of Housing in Europe report from 2023 highlights slow administrative processes and unstable, unpredictable public funding as major causes of delays in releasing funds, which feeds into those low renovation rates (Housing Europe, 2023).

The EU lacks a clear, practical mechanism for safeguards that better protect vulnerable households and tenants and that ensure that financial incentives are directed towards them. Good examples include OSS, caps on disproportionate rent increases following renovations, and rent support. Public and private financing schemes should take into account the specific needs of vulnerable households, as in the example of Ireland and Lithuania in Table 1 (see above). The EPBD already recognises the importance of social fairness and the affordability of renovations. The first drafts of National Building Renovation Plans, due in December 2025, should clarify how funding streams connect to other funding streams on climate adaptability and human health. It is now crucial that Member States fully implement the EPBD, supported by delivering comprehensive Plans.

#### What can the EU do?

Building on the legislative progress made under the previous European Commission, the EU level can be instrumental in advancing renovation and repurposing, playing an enabling role in Member States delivering resilient buildings.

# Centre a resilience approach to renovation as a key tool for the energy transition in the Affordable Housing Plan and Citizens Energy Package

The forthcoming Affordable Housing Plan must go beyond a narrow definition of affordability focused only on immediate rent or mortgage costs. Genuine affordability must cover affordability both now and tomorrow and must reflect the many ways housing shapes both individual well-being and societal resilience.

A definition of affordability should include a recognition of:

- Energy resilience: Homes must be energy-efficient, affordable to run, and capable of shielding households from volatile energy prices by ending fossil fuel dependence, strengthening energy security and enabling participation in a renewable, flexible energy system.
- Health resilience: Affordable housing must guarantee healthy indoor environments, reducing risks from damp, cold, and poor air quality, and cutting wider societal costs by preventing illness and supporting physical and mental well-being.
- Climate resilience: Housing must be resilient to extreme heat, cold, and other climate impacts (cutting reliance on costly mechanical cooling to a minimum) and must reduce economic losses for governments from climate-related damage.

#### Develop a strategy to close the construction sector skills gap for renovation and repurposing, reducing renovation costs

The construction sector is facing a shortage of skilled workers to renovate and repurpose vacant buildings to meet energy efficiency standards. The EU's Pact for Skills already promotes green and digital skills, and the Construction Large-Scale Partnership (LSP) aims to upskill or reskill 30% of the workforce annually by 2030. Through the BUILD UP Skills initiative, new skills roadmaps are being worked out in 15 countries to meet climate and energy goals for buildings. However, the construction sector specifically needs a clear and coordinated political strategy, based on the Construction Blueprint 2 Erasmus+ project. While the forthcoming European Strategy for Housing Construction is expected to tackle workforce issues in general, it must also focus on the specific skills needed for renovation and repurposing. Fast-track training should be launched to expand the renovation workforce by focusing on interventions that are the most effective in cutting energy demand in buildings across climates, such as insulation, efficient heating, ventilation, and airconditioning (HVAC) systems, and windows (International Energy Agency, 2024). Furthermore, prioritising

participation of vulnerable groups in training could not only help bridging the skills gap but would bring larger societal benefits<sup>4</sup>. State-sponsored deep renovation should be prioritised in the social housing sector to build up skilled labour through centrally managed projects, enabling faster scaling and knowledge transfer to the private market.

Costs can also be cut by scaling up industrialised renovation, through prefabrication, which can speed up construction by 50%. Quality control is superior, savings are significant, and waste is cut by up to half. Furthermore, prefabrication improves safety and reduces environmental impact (University of the Built Environment, 2025). It can also improve working conditions as much of the activity is moved indoors.

#### Guarantee fair and equitable access to renovation for all

The EPBD aims to trigger more renovations, focusing on worst-performing buildings, energy poverty and vulnerable households. The Affordable Housing Plan should complement the legal EPBD requirements by explicitly linking affordable housing to the EU Energy Union's broader goals of energy security, efficiency, and decarbonisation. It should also align closely with the EPBD to set a political priority in making renovation affordable and its benefits available for those with lower income.

Moreover, it is crucial that the European Commission uses the forthcoming Citizens Energy Package to link energy poverty alleviation directly to fair access to renovation. Priorities should include addressing split incentives for situations where energy-poor households are renting, strengthening OSS to support citizens with technical and administrative support alongside the renovation support and making grants and subsidies accessible to lowest income groups, by covering fully up-front costs and by removing discriminatory eligibility criteria that prevent vulnerable households from accessing it (e.g. requirements related to debt, formal employment or coverage of even part of renovation costs). Another priority should be increasing funding for home-owner associations, which in many Member States are critical to renovations (Bankert, Milanovska, 2025). The EU Renovation Loan is another tool currently being piloted to provide low-cost, long-term loans to help European homeowners finance deep energy renovations. Unlike traditional loans, the loan is repaid only upon the sale or transfer of the property, or after 30 years, and is offered at a below-market interest rate.

Public funding, including the Multi-annual Financial Framework and national funding streams should prioritise and lower income and vulnerable groups, overrepresented in the least performing buildings, as prescribed by the EED and EPBD.

Finally, the European Commission should carefully review the National Building Renovation Plans to ensure they explicitly support deep and phased renovations for low-income, energy-poor, and otherwise vulnerable households. This means enforcing safeguards to prevent displacement of vulnerable households, and ensuring access to tailored financial support, such as grants or subsidised loans, combined with free technical and social assistance.

## Promote neighbourhood-scale renovation and energy sharing in the Citizens Energy Package

The Affordable Energy Action Plan largely overlooked the role of citizens and buildings. The Citizens Energy Package must place citizens at the centre of the energy transition and strengthen the coordination of renovations, financing, and capacity-building at neighbourhood level. The neighbourhood approach is crucial in addressing affordability and effectiveness. Grouping renovation efforts at the district or neighbourhood scale allows for economies of scale in procurement, logistics, and labour, and makes it easier to industrialise renovation processes, such as prefabrication, which can cut costs and renovation times significantly. A strong neighbourhood perspective, rooted in city-wide urban and social policy, can also mitigate risks of reinforcing

<sup>&</sup>lt;sup>4</sup> The IGLOO France project helped people experiencing homelessness and severe housing exclusion for more than a decade by combining access to housing with employment opportunities in construction and renovation.

inequality. Moreover, by mobilising existing community networks, the neighbourhood approach makes it easier to coordinate collective self-consumption of energy, form citizen-led renewable energy communities, and share resources like solar energy or heat pumps<sup>5</sup>. Tenant and owner organisations must be also in place to prevent evictions and displacements.

It is therefore very much a good thing that promoting neighbourhood approaches is already a mandatory indicator for the National Building Renovation Plans that Member States are currently drafting. The forthcoming Citizens Energy Package should now support implementation of this indicator, which can make renovation more affordable while engaging citizens in the process. To do this, the CEP must promote investment in municipal capacity-building and set up structures for collaboration – such as Climate Citizen Assemblies or local mission boards – while strengthening citizens' ability to play an active role through mechanisms such as one-stop shops (Roumet , 2024).

<sup>&</sup>lt;sup>5</sup> See the other policy brief in this series, "Facilitating energy sharing" <a href="https://eu.boell.org/sites/default/files/2025-04/facilitating-energy-sharing-boosting-participation.pdf">https://eu.boell.org/sites/default/files/2025-04/facilitating-energy-sharing-boosting-participation.pdf</a>

#### References

Ahrendt D. et al. (2016). Inadequate housing in Europe: costs and consequences. Eurofound. Retrieved from <a href="https://publications.europa.eu/resource/cellar/5187e545-78ab-11e6-b076-01aa75ed71a1.0001.02/DOC 1">https://publications.europa.eu/resource/cellar/5187e545-78ab-11e6-b076-01aa75ed71a1.0001.02/DOC 1</a>

**Bankert E., Milanovska E. (2025).** From stairwells to policy: the hidden force behind building renovations. CEENERGYNEWS. Retrieved from <a href="https://ceenergynews.com/voices/from-stairwells-to-policy-the-hidden-force-behind-building-renovations/">https://ceenergynews.com/voices/from-stairwells-to-policy-the-hidden-force-behind-building-renovations/</a>

**Buildings Performance Institute Europe (2022a).** Putting a stop to energy waste: How building insulation can reduce fossil fuel imports and boost EU energy security. May 2022. Retrieved from https://www.bpie.eu/wp-content/uploads/2022/05/Putting-a-stop-to-energy-waste Final.pdf

**Buildings Performance Institute Europe (2022b).** Report on the evolution of the European regulatory framework for buildings efficiency. Retrieved from <a href="https://www.bpie.eu/wp-content/uploads/2022/02/rev6">https://www.bpie.eu/wp-content/uploads/2022/02/rev6</a> SPIPA EU.pdf

**Buildings Performance Institute Europe (2024).** EU buildings climate tracker 3<sup>rd</sup> edition. Retrieved from <a href="https://www.bpie.eu/wp-content/uploads/2024/11/EU-Buildings-Climate-Tracker ExSum.pdf">https://www.bpie.eu/wp-content/uploads/2024/11/EU-Buildings-Climate-Tracker ExSum.pdf</a>

**Directive (EU) 2024/1275** of the European Parliament and of the Council of 24 April 2024 on the energy performance of buildings, retrieved from <a href="https://eur-lex.europa.eu/eli/dir/2024/1275/oj/eng">https://eur-lex.europa.eu/eli/dir/2024/1275/oj/eng</a>

**Dorizaz V. et al. (2024).** Healthy Buildings Barometer 2024. Buildings Performance Institute Europe, Velux Retrieved from <a href="https://www.bpie.eu/wp-content/uploads/2024/04/Healthy-Buildings-Barometer-2024-final-for-screen-single-pages-20240404-1.pdf">https://www.bpie.eu/wp-content/uploads/2024/04/Healthy-Buildings-Barometer-2024-final-for-screen-single-pages-20240404-1.pdf</a>

**European Climate Foundation (2022).** Building Europe's net-zero future. European Climate Foundation. Retrieved from <a href="https://europeanclimate.org/wp-content/uploads/2022/03/ecf-building-emissions-problem-march2022.pdf">https://europeanclimate.org/wp-content/uploads/2022/03/ecf-building-emissions-problem-march2022.pdf</a>

**European Environment Agency (2022).** Cooling buildings sustainably in Europe: exploring the links between climate change mitigation and adaptation, and their social impacts. Retrieved from <a href="https://www.eea.europa.eu/en/analysis/publications/cooling-buildings-sustainably-in-europe-exploring-the-links-between-climate-change-mitigation-and-adaptation-and-their-social-impacts">https://www.eea.europa.eu/en/analysis/publications/cooling-buildings-sustainably-in-europe-exploring-the-links-between-climate-change-mitigation-and-adaptation-and-their-social-impacts</a>

**European Labour Authority (2025).** Labour shortages and surpluses in Europe 2024. Retrieved from <a href="https://www.ela.europa.eu/en/publications/labour-shortages-and-surpluses-europe-2024">https://www.ela.europa.eu/en/publications/labour-shortages-and-surpluses-europe-2024</a>

**European Trade Union Confederation (2025).** For an EU Directive on subcontracting and labour intermediation Retrieved from <a href="https://www.etuc.org/en/document/eu-directive-subcontracting-and-labour-intermediation">https://www.etuc.org/en/document/eu-directive-subcontracting-and-labour-intermediation</a>

**Eurostat (2025a).** Dataset: Total population living in a dwelling with a leaking roof, damp walls, floors or foundation, or rot in window frames or floor. Retrieved from <a href="https://ec.europa.eu/eurostat/databrowser/bookmark/d24f3f86-be69-4bae-85c6-b651726f3062?lang=en&createdAt=2025-11-01T08:48:44Z">https://ec.europa.eu/eurostat/databrowser/bookmark/d24f3f86-be69-4bae-85c6-b651726f3062?lang=en&createdAt=2025-11-01T08:48:44Z</a>

**Eurostat (2025b).** EU renewable energy for heating and cooling reaches 26%. Retrieved from https://ec.europa.eu/eurostat/web/products-eurostat-news/w/ddn-20250305-1

**FEANTSA (2025).** Reclaiming Vacant Spaces to Tackle Housing and Homelessness Crises in Europe. Retrieved from <a href="https://www.feantsa.org/public/user/Resources/2510092">https://www.feantsa.org/public/user/Resources/2510092</a> FEANTSA - <a href="https://www.feantsa.org/public/user/Resources/2510092">Report\_Reclaiming\_vacant\_spaces\_WEB\_spreads.pdf</a>

**Housing Europe (2023).** The state of housing in Europe 2023. Retrieved from <a href="https://stateofhousing.eu/The State of Housing in the EU 2025.pdf">https://stateofhousing.eu/The State of Housing in the EU 2025.pdf</a>

International Energy Agency (2024). Developing a Global Energy Efficiency Workforce in the Buildings Sector. Retrieved from <a href="https://iea.blob.core.windows.net/assets/a926c3d4-2b46-4d88-a51e-9b53f5a62caf/DevelopingaGlobalEnergyEfficiencyWorkforceintheBuildingsSector.pdf">https://iea.blob.core.windows.net/assets/a926c3d4-2b46-4d88-a51e-9b53f5a62caf/DevelopingaGlobalEnergyEfficiencyWorkforceintheBuildingsSector.pdf</a>

Lapillonne B., Raji Z. (2024). Energy efficiency trends in households in the EU. Odyssee-Mure. November 2024. Retrieved from <a href="https://www.odyssee-mure.eu/publications/policy-brief/households-efficiency-trends.html">https://www.odyssee-mure.eu/publications/policy-brief/households-efficiency-trends.html</a>

**Lapillonne B., Raji Z. (2025).** Energy efficiency in time of crisis at EU level. Odyssee-Mure. March 2025. Retrieved from <a href="https://www.odyssee-mure.eu/publications/policy-brief/crisis-impact-eu-energy-efficiency.html">https://www.odyssee-mure.eu/publications/policy-brief/crisis-impact-eu-energy-efficiency.html</a>

**Roumet C., (2024).** Local management of a systemic transition. Green European Foundation and Heinrich-Böll Stiftung EU. Retrieved from <a href="https://eu.boell.org/sites/default/files/2025-04/local-management-of-a-systemic-transition-boosting-participation.pdf">https://eu.boell.org/sites/default/files/2025-04/local-management-of-a-systemic-transition-boosting-participation.pdf</a>

**University of the Built Environment (2025).** A guide to prefabrication (and how it's transforming construction). February 2025. Retrieved from <a href="https://www.ube.ac.uk/whats-happening/articles/what-is-prefabrication/">https://www.ube.ac.uk/whats-happening/articles/what-is-prefabrication/</a>

**Zahgheri P. et al. (2020).** Building energy renovation for decarbonisation and Covid-19 recovery. JRC. Retrieved from <a href="https://publications.jrc.ec.europa.eu/repository/handle/JRC122143">https://publications.jrc.ec.europa.eu/repository/handle/JRC122143</a>

#### **About the Foundations**

#### **Green European Foundation**

The Green European Foundation (GEF) is a European-level political foundation whose mission is to contribute to a lively European sphere of debate and to foster greater citizen involvement in European politics. GEF strives to mainstream discussions on European policies and politics both within and beyond the Green political family. The foundation acts as a laboratory for new ideas and offers cross-border political education and a platform for cooperation and exchange at the European level.

GEF's Policy Hub tackles key European issues related to the intersecting domains of energy, climate, social, and economic affairs. Ultimately, we aim to set out ideas and proposals that can inform and incentivise policies for an equitable and systemic green transition.

#### Heinrich-Böll Stiftung European Union | Global Dialogue

The **Heinrich-Böll-Stiftung** is a German political foundation affiliated with the German Green Party. Its primary task is political education and advocacy in Germany and abroad. Our main tenets are ecology and sustainability, democracy and human rights, non-violence and justice. In our work, we place particular emphasis on gender democracy, equal rights for minorities and the political and social participation of migrants. As a think tank for green visions and ideas, we are part of an international network with 34 offices worldwide and with partner projects in more than 60 countries.

#### **Acknowledgements**

This policy brief is one in a series of briefs developed by a Knowledge Community of approximately 30 experts in energy and social policy from industry, the EU institutions, civil society and think tanks. The group met several times over half a year to discuss how to foster participation and inclusion in the energy transition. To write the briefs, the authors used a collaborative method where they presented each draft during Knowledge Community meetings then led a dedicated discussion, drawing ideas from the expertise in the group to develop their work.

We thank all Knowledge Community participants for their time and input. The work in this Knowledge Community has been led by the Green European Foundation in association with Heinrich-Böll-Stiftung European Union | Global Dialogue.

**Editors:** Matthew Jones (Green European Foundation), Jörg Mühlenhoff (Heinrich-Böll Stiftung European Union | Global Dialogue) and Taube Van Melkebeke (Green European Foundation)

Proofreading by Anton Baer (Voxeurop)

Layout and design by Klär.graphics

This policy brief is published by the Green European Foundation with the financial support of the European Parliament to the Green European Foundation. The European Parliament is not responsible for the content of this publication. The views expressed in this publication are solely those of the authors and contributors and do not necessarily reflect the views of the European Parliament or the Green European Foundation.

Published with the support of the Heinrich-Böll-Stiftung European Union | Global Dialogue. The analysis and opinions expressed in this report reflect the views of the authors, and do not necessarily reflect the views of the Heinrich-Böll-Stiftung European Union | Global Dialogue.