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Actions to Mitigate Energy Poverty
in the Private Rented Sector

Eva Suba (CA),
Mara Oprea, Vlasis Oikonomou (IEECP)

# D5.4 Policy recommendations on setting up energy efficiency policies to alleviate energy poverty in the PRS

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# 1 EXECUTIVE SUMMARY

Energy poverty, defined as the inability to access affordable, reliable, and clean energy services, is a pressing concern in the **Private Rented Sector (PRS)** in the EU. Low-income, high-energy costs and poor or inadequate housing conditions, lack of control over energy improvements in a building, regulatory gaps and affordability issues disproportionately affect vulnerable populations, leading to increased social inequality and health disparities. This policy paper presents a set of recommendations to address energy poverty in the PRS, emphasizing the importance of access to affordable and appropriate energy efficiency improvements, tenant empowerment, and regulatory measures. The set of recommendations are based on the findings of the Horizon 2020 project ENPOR, aimed at alleviating energy poverty in the PRS, improving living conditions, and reducing greenhouse gas emissions. The following policy paper is based on the findings of ENPOR research laid out in:

- Report on energy poverty in the PRS – overview and framework;
- Structural factors impacting energy policies;
- Analysis and assessment of existing policies in the PRS;
- the Energy Poverty Dashboard, and
- the Monitoring framework.

The policy recommendations are based on the findings of the:

- Pilot Outcome fiches – Analysis of the policies' outcome and
- the Key findings and inspiring cases.

The detailed account of successful policy measures enhanced throughout the duration of the ENPOR project, along with insights into the collaborative co-creation process, is comprehensively documented in the:

- Report on the implementation of the ENPOR policies.

The ENPOR co-creation process is described in:

- Replication Plan on the possible ways of upscaling best practices.

All documents are accessible in the Knowledge Hub of the ENPOR website[1].

[1] https://www.enpor.eu/knowledge-hub/

# 2
# BACKGROUND AND SCOPE

**Energy poverty is a situation where a household cannot meet its domestic energy needs for a period or permanently**[2]. It depends, amongst others, on access to energy, efficiency, pricing and empowerment[3]. Energy poverty affects vulnerable and low-income households who often face high energy bills and live in substandard housing conditions while restrict their own energy consumption to avoid high costs. This policy paper aims to address these issues by providing recommendations that promote energy efficiency, empower tenants, and enhance regulatory oversight. An ENPOR analysis established the state-of-the-art in knowledge of PRS-specific energy poverty challenges and provided a detailed overview of specific challenges and potential solutions to current policy measures in this area.

Urgent further investments in the renewable energy transition and in energy efficiency in buildings are more important than ever due to the accelerating rate of climate change impacts. Despite the kick-off of the green energy transition in Europe with a complex set of EU legislations under the Fit-for-55, the rising number of energy poor citizens is alarming following the COVID global pandemic and the energy crisis. The required investments and policies must however keep the social costs of the transformation low to avoid social reactions and mistrust towards energy transition. ENPOR's **main recommendation to national policy makers is to establish these policy measures in close collaboration with different stakeholders involved in the PRS**. Co-operation, co-creation and the need for considering the specific challenges faced by low-income households is of central importance to gain broad political support and public acceptance in the targeted policies. At the core of our approach lies the proposition that **energy efficiency in buildings coupled with strong communication and advisory measures should be considered as the structural solution to alleviate energy poverty**. It is a process that intercepts human lives and stories.

## 2.1 Objectives

The objectives of this policy paper are to:

1. Highlight how to alleviate energy poverty by improving the energy efficiency of rental properties.
2. Empower landlords through technical support, financial support and education.
3. Empower tenants through education, advocacy, and protection from disproportionate total rent increase.[4]
4. Strengthen regulatory measures to ensure compliance with energy efficiency standards.

[2] Definition by ENPOR

[3] DellaValle N., Czako V.: Empowering energy citizenship among the energy poor, Energy Research & Social Science, Volume 89, July 2022, 102654. https://www.sciencedirect.com/science/article/pii/S221462962200158X

[4] This recommendation has been produced by the ENPOR project and does not necessarily reflect the views of UIPI.

# 3 CURRENT SITUATION

## 3.1 Energy Poverty in the PRS

Approximately 40 million people are affected by energy poverty in 2022. The size of the rental sector in the EU is 25,9%[5]. Low-income, high-energy expenditure and low level of energy efficiency in housing are the cornerstones of energy poverty. This is confirmed by the fact that between 2012 and 2015, low-income households in Northern, Southern and Western Europe spent more on rent than the EU average[6], with a high share of low-income tenants who are overburdened by market rate rent spending 35% of their income on rent.

The low energy efficiency of the PRS, coupled with its complex environmental implications, are one of the key motives to study the sector, as well as the challenges and possibilities for improving its energy performance. Landlords and tenants **are the crucial stakeholders to address, when it comes to successful design and implementation of energy efficiency policies.** Despite ambitious strategies introduced to achieve climate targets, there are numerous policy barriers to implementing energy efficiency measures (See details in section Challenges and Barriers). In the PRS, for which as many as 25,9% of EU citizens rely on for housing, access to affordable renewable energy and energy efficiency renovations as well as required accompanying regulatory changes are key to alleviating energy poverty. **The PRS must be considered when designing energy efficiency policy measures on the national scale, with specific conditions to include when energy poor households are involved.**

[5] Source: The ENPOR Energy Poverty Dashboard: https://www.energypoverty.info/energy-poverty-dashboard/
[6] Burbidge, M. et al. (2023). Deliverable 2.8 – Structural Factors Impacting Energy Efficiency Policy Implementation in the European PRS. University of Manchester, United Kingdom: ENPOR Project

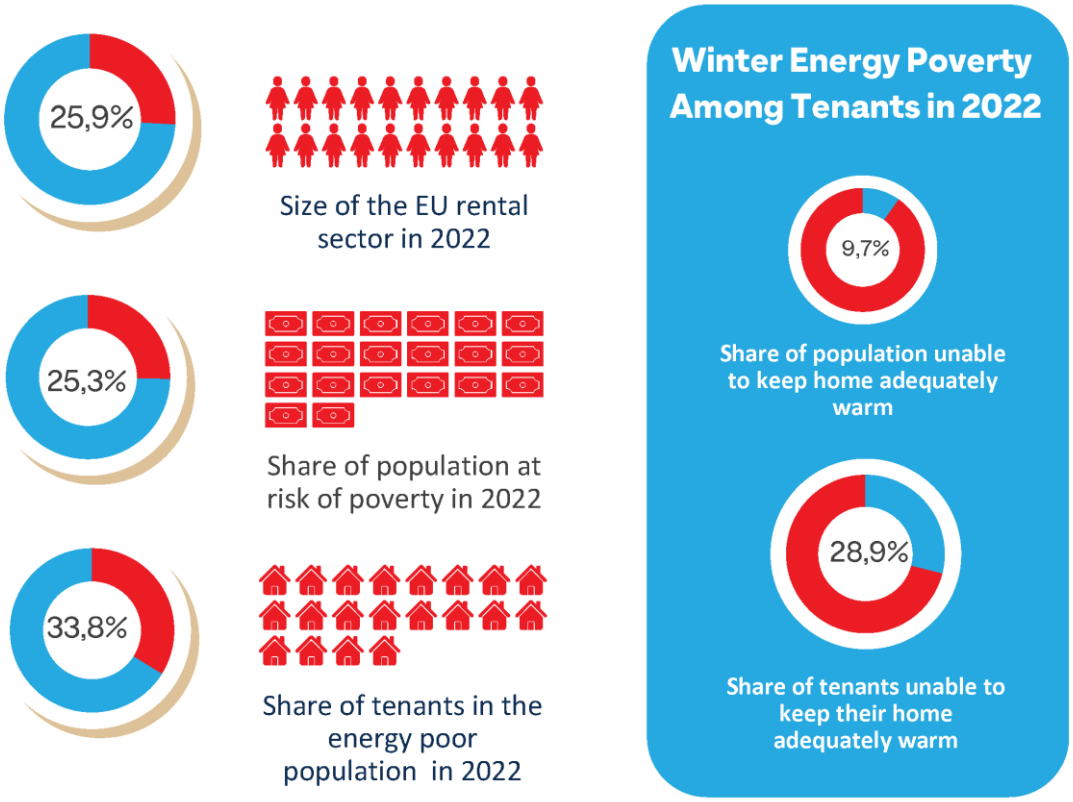



**Figure 1 Key figures extracted from the Energy Poverty Dashboard (EPD). Source: ENPOR**

The OECD found that average rents are lower in highly regulated countries, but investment in energy efficient renovation is also lower. This phenomenon is highly important to consider as a high share of energy poor rental households live in dwellings with low energy efficiency and the phenomenon of the split incentive[7] often hinders landlords to invest in energy efficient upgrade of these buildings. In the context of energy efficient renovations, tenants face complex challenges, with limited opportunities to tackle the inefficiency of their homes, although this varies depending on regulatory and governance context. Recent Eurostat figures indicate a rising trend among EU citizens who cannot keep their homes adequately warm[8]: 6.9% in 2021 to 9.7% in 2022. The share of tenants unable to keep their home adequately warm was in the same time 12,6%. Considering the impact of global warming on European households, it is also important to note the Eurostat data that in 2018 about 19% of the share of EU population was unable to adequately cool their house during the summer period. In the same time wholesale electricity prices doubled from 2021 to 2022[9] and most member countries have seen a steady increase of household energy prices.

Today, energy poverty is acknowledged at EU level by the definition enshrined in the revised Energy Efficiency Directive[10] (EU/2023/1791). On 23 October 2023, the European Commission published a new

[7] "Split incentives" refer to any situation where the benefits of a transaction do not accrue to the actor who pays for the transaction.
[8] https://energy.ec.europa.eu/topics/markets-and-consumers/energy-consumer-rights/energy-poverty_en
[9] https://www.iea.org/reports/electricity-market-report-2023/executive-summary
[10] https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=OJ%3AJOL_2023_231_R_0001&qid=1695186598766

Recommendation on energy poverty together with a guidance document[11]. The EU legal framework requires Member States for the first time to identify and tackle energy poverty in their National Energy and Climate Plans (NECPs). Energy poor households should be prioritized for public investment or measures in energy efficiency and in further measures. ENPOR research found that 85% of the existing energy efficiency policies implemented since 2010 are **not targeted at the rental sector. Only 28% of these policies were targeted at low-income groups and only 6 of the 114 policies analyzed were aimed at tenants.**

Many countries' policy measures do not **distinguish income poverty from energy poverty in the absence of national energy poverty definitions**. Income poverty and energy poverty are interconnected but they remain two different issues. Income poverty refers to a lack of resources, including food, shelter, and clothing, necessary to sustain a livelihood[12]. Several approaches are used to define and measure energy poverty, considering both demand and supply of alternative energy sources. Particularly comprehensive approaches have been developed by the Energy Poverty Advisory Hub[13] for local authorities via its technical assistance, online course and handbooks, as well as for national authorities via their set of national indicators, making use of the elaborate set of energy poverty indicators of the Covenant of Mayors. ENPOR provides an addition to these instruments, via the **Energy Poverty Dashboard[14],** a toolbox that diagnoses and quantifies energy poverty in the PRS on a national and regional scale (NUTS categorization).

### 3.2 Affected groups by energy poverty in the PRS

The conducted ENPOR primary survey showed[15] that stakeholders, in academia, policy-related and governmental organisations, tenant associations, landlord associations, companies, NGOs and others, consider the following groups as potentially vulnerable to energy poverty and that many of these vulnerabilities are intersectional and overlapping with each other:

- Low-income groups
- Refugees/displaced persons
- Ethnic minorities
- Single parent households
- People with disabilities
- Women
- Elderly people

[11] https://energy.ec.europa.eu/topics/markets-and-consumers/energy-consumer-rights/energy-poverty_en
[12] https://blogs.worldbank.org/developmenttalk/why-energy-poverty-may-differ-income-poverty
[13] https://energy-poverty.ec.europa.eu/index_en
[14] https://www.energypoverty.info/energy-poverty-dashboard/
[15] Burbidge, M. et al. (2023). Deliverable 2.8 – Structural Factors Impacting Energy Efficiency Policy Implementation in the European PRS. University of Manchester, United Kingdom: ENPOR Project

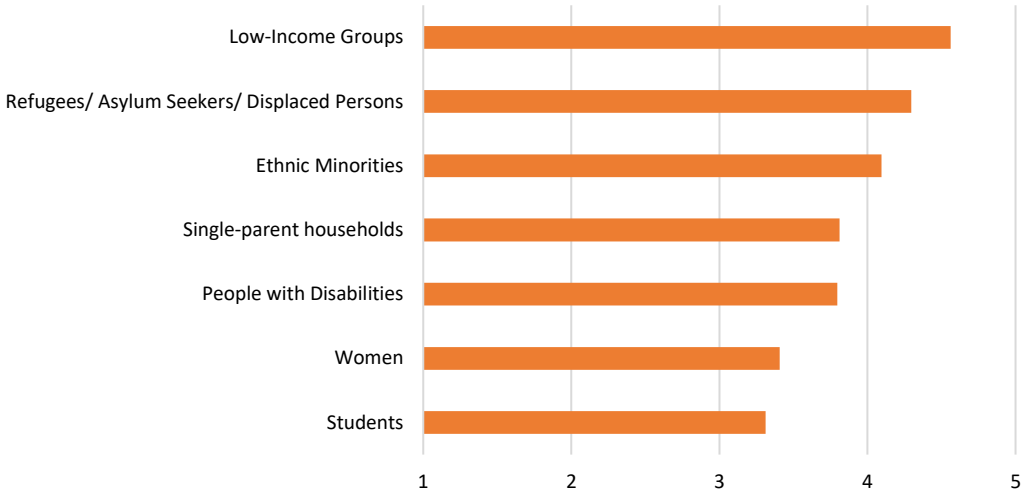



**Figure 2 Mean rating value of the affectedness of different groups by energy poverty in the PRS across Europe Source: ENPOR**

### 3.3 Housing policy and energy poverty in the PRS

Multilevel governance in housing represents a dynamic and responsive approach to the intricate challenges associated with providing adequate and inclusive housing. By promoting collaboration, decentralizing decision-making, and incorporating diverse perspectives, this governance model has the potential to create housing solutions that are more equitable, sustainable, and tailored to the unique needs of different regions and communities. In practice, considering multi-level governance, the EU has no direct competence in the realm of housing policy. Housing policies and thus renovation of buildings fall predominantly under national government competences and financing programs. In some Member States, it is located even one level below, at the Federal States level, leading to complicated vertical and horizontal constellations when it comes down to e.g., subsidies. National European housing markets are heterogeneous, with high variations between regions, urban and rural areas. The differing historical housing legacies, geographical differences in housing stock, and proportions of private renters across local, regional and national scale make it difficult to create and implement energy efficiency policies considering energy poor households in the PRS. However, the various barriers to implementing such policies can be and must be overcome to reach the EU and national climate goals while not leaving energy poor households behind.

The ENPOR research found, that energy poverty is poorly understood in relation to the **PRS[16] and that on the global scale, PRS housing is the least energy efficient and least well-maintained[17]**.

16 The PRS (PRS) is a classification of housing whereby a landlord, who is not a local authority, some types of housing association or registered social landlord, leases a property to a tenant, for a period of more than six months. (ENPOR Deliverable 2.8)

17 Burbidge, M. et al. (2023). Deliverable 2.8 – Structural Factors Impacting Energy Efficiency Policy Implementation in the European PRS. University of Manchester, United Kingdom: ENPOR Project

FACTS AND FIGURES: IN 2016, IT WAS ESTIMATED THAT GLOBALLY, 1.2BN PEOPLE LIVED IN RENTED ACCOMMODATION, PARTICULARLY IN URBAN AREAS, WHERE AFFORDABILITY AND QUALITY OF HOUSING REMAINS A KEY ISSUE, WITH HOUSEHOLD EXPENSES INCREASING FASTER THAN SALARIES IN MANY METROPOLES (WETZSTEIN, 2017).

In Europe, PRS tenants are more likely to be suffering from this condition than the general population, and **PRS housing is the least energy efficient and least well-maintained**[18]. Alleviating energy poverty also in the PRS is a key precondition for achieving just transitions towards climate neutrality. The PRS is viewed by many EU states as a crucial element in housing provision, providing long-term alternatives to social housing and homeownership for a broader gamut of society. The size of the rental sector in ENPOR countries can be checked at the Energy Poverty Dashboard[19], fed by various data sources. The most recent data from 2022 shows a big variety among ENPOR countries:

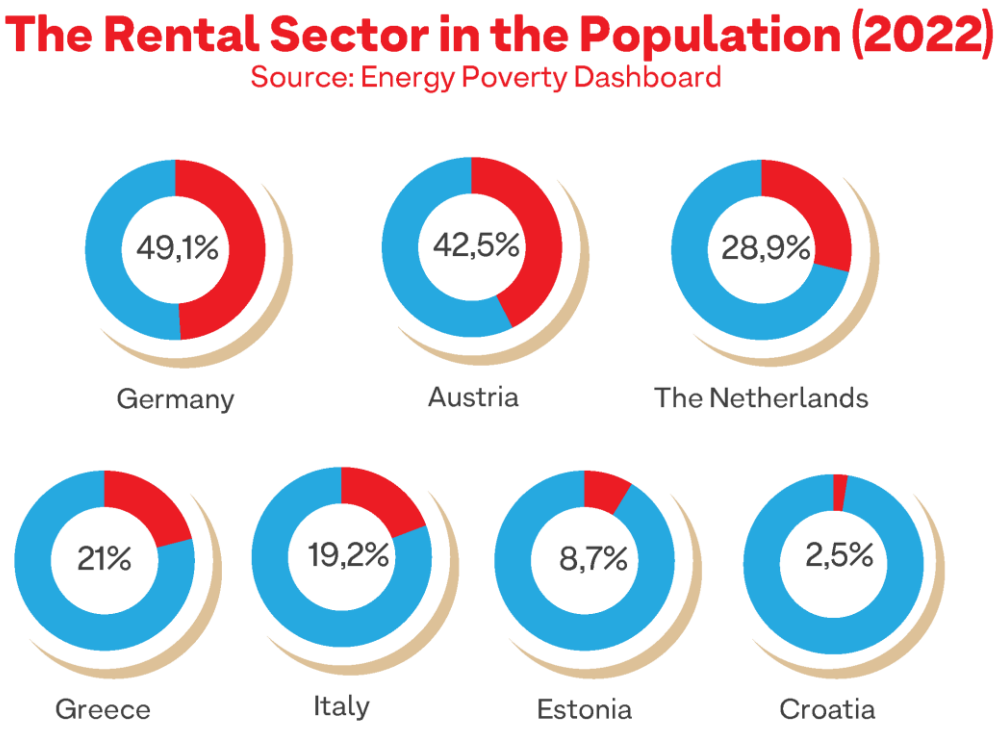



**Figure 3 Size of the Rental Sector in ENPOR Countries Source: ENPOR**

Following the effects of **COVID-19, the energy crisis,** exacerbated by the Russian invasion of Ukraine in February 2022, our research results confirm that Europe continues to see worsening levels of energy poverty across its countries. At the same time, there has also been significant progress on the state of the

18 Burbidge, M. et al. (2023). Deliverable 2.8 – Structural Factors Impacting Energy Efficiency Policy Implementation in the European PRS. University of Manchester, United Kingdom: ENPOR Project

19 https://www.energypoverty.info/energy-poverty-dashboard/

art regarding the PRS, in both academic and policy terms.

The complexity of the sector has been recently analyzed in detail by a group of experts in the ENPOR project. This detailed analysis was conducted to grasp the advantages and shortcomings of a 114 policy measures across Europe combined with a detailed study on the structural barriers preventing investment in energy efficiency measures in Europe's PRS housing stock.[20] **A core outcome is that most measures are not sufficient to tackle energy poverty, particularly low income or vulnerable PRS tenants are disregarded, and do not bring together landlords and tenants to address the split incentive**.

Most policies in the analysis were technical and financial measures, with a more limited number involving advice regarding behavioral change and energy saving measures. An even more limited number of measures address the regulatory and political context of energy poverty in this housing stock, and, as a whole, the public participation and policy engagement dimension is inadequately represented**. ENPOR research results led to the key recommendation that involving tenants and landlords in the formulation, design and implementation of future initiatives and interventions is paramount to address energy poverty in private rental situation**.

Critics have argued that governments have placed an increasing and 'excessive' emphasis on the PRS to solve the affordable housing crisis, putting the returns to investors ahead of the needs of tenants. A key driver of issues surrounding affordability is the process of gentrification, whereby well-located and attractive inner-city areas become populated with higher-income households, or property is purchased by Buy-to-Let (BTL) investors. As a result, lower-income households can find themselves displaced, making way for higher-income and affluent residents, which can also prove to be advantageous for landlords. **Financialisation**[21] is the development of private equity firms into REITS (Real Estate Investment Funds). REITs are a way to attract foreign investment and recapitalize the banking sector, and often have financial models to create large profits in the short term.

EXAMPLE: IN IRELAND, GREECE AND SPAIN, IN THE MIDST OF CRISIS-STRICKEN PROPERTY MARKETS, INSTITUTIONAL INVESTORS BOUGHT DETACHED MULTIFAMILY RENTAL HOMES IN LARGE VOLUMES FOR CONVERSION INTO SINGLE-FAMILY HOMES, OFTEN INVOLVING 'GENTRIFYING-BY-UPGRADING', AS THESE LUXURY RENTALS CAN FETCH HIGHER RENTS THAN MULTI-FAMILY OCCUPANCIES, DISPLACING EXISTING LOWER-INCOME RESIDENTS.

A further phenomenon is **Hotelisation**. This can also refer to the conversion of longer-term rental housing into short-term or tourist lets by platform technologies such as Airbnb, which can lead to housing shortages, house-price inflation and displacement of lower-income groups in tourist-attractive neighborhoods. The financialisation of homeownership and renting may lead to decreasing affordability of housing for low-income private renters across Western European countries. Credit for mortgages has become significantly harder to obtain for lower income and first-time buyers, and house prices increases have rapidly outstripped wage and income growth.

20 Burbidge M.K., Bouzarovski, S., Papantonis, D. & Tzani, D. (2023). Analysis of PRS Policies and Measures [D2.7 Final Version]. University of Manchester, UK: ENPOR Project

21 With respect to the PRS, financialisation is the conversion of housing into financial assets, the dominance of financial activities as the driving force behind changes to national housing systems, and the increasing reach of financial activity into what were previously non- or less-financialised actors and systems.

FACT AND FIGURES: IN ZAGREB, CROATIA THE ANNUAL INCOME FROM SHORT-TERM RENTAL PLATFORMS INCREASED BY 30% TO 2020, PRIOR TO THE COVID-19 PANDEMIC. AT THE SAME TIME, ACCESSIBILITY WAS DRASTICALLY REDUCED LONG-TERM RENTAL: RENTAL PRICES IN CROATIA OF LONG-TERM LEASES ARE GROWING AT AN ANNUAL RATE OF 11%.

In Croatia and in SEE and the Western Balkans the phenomenon of the "s**o-called free-based tenancy**" is observed. This type of rental situation includes two separate families/households in the same dwelling. In most of such multi-generational households, three main problems have been identified: unregulated market, unresolved property-legal relations and postponing complete renovation of the building and passing the problem on to future heirs contribute it is much more difficult to initiate energy renovation in such house or building.

FACT AND FIGURES: EUROSTAT IN 2021 FOR CROATIA SHOWS THAT 90.5% PEOPLE ARE LIVING IN HOUSEHOLDS THAT THEY OWN AND 9.5% IS RENTING THEIR HOME. DATA FROM FIELD RESEARCH FOR THE CITY OF ZAGREB SHOWS A RATIO IS 66% OWNERS AND 34% ARE LIVING AS TENANTS IN THE PRIVATE RENTAL SECTOR OR IN AND SOCIAL HOUSING.

The PRS is also increasingly being used as an **'asset-based welfare strategy'**, whereby individuals invest in property to ensure future welfare for themselves in older age as a supplement to pensions, and for their families and become landlords. This provides a form of protection for middle class households against a backdrop of wage stagnation, privatization of state services and reduced welfare provision. Individual property owners who become landlords this way not only use these properties for immediate benefits, but also need set aside significant funds for renovations.

FACTS AND FIGURES: VIENNA, A CITY WITH A LARGE SOCIAL HOUSING SECTOR AND HIGH RATE OF RENTAL TENANCY, IS EXPERIENCING A PHENOMENON, CALLED VORSORGEWOHNUNG, OR 'PROVISION FOR PENSION APARTMENTS', ARE BEING TRANSFORMED INTO A SUBMARKET ASSET CLASS FOR SMALL-SCALE PRIVATE INVESTORS. BY 2015, EVERY 10TH BUILDING PROJECT WAS SOLD ONLY TO INVESTORS RATHER THAN OWNER-OCCUPIERS. THIS HAS CREATED A PRICE BOOM IN AUSTRIA UNEQUALLED ELSEWHERE IN THE EU BETWEEN 2007-19, WITH A 124% INCREASE IN PER SQUARE METER SALES PRICE.

Many countries' rental sectors also include **large-scale corporate landlords**, with recent growth of very large new rental corporations in some areas. In Germany, this growth has been attributed to the privatization of social housing. The main issues we found include:

- tensions between renters and shareholder interests in these investor-owned properties,
- landlord accountability (especially if they are headquartered in different cities or even abroad),
- rent hikes tied to property upgrades,
- sub-metering of utilities including energy,
- poor property management,
- ancillary charges, and
- increased illegal inspections and evictions.

# 4 TARGETING FINANCIAL MEASURES FOR RENOVATION AND ENERGY POVERTY IN THE PRS

Our analysis found that publicly financed national and local home renovation grants do not sufficiently address the particularities of the PRS. This is most visible when it comes to the split incentive issue. Additionally, existing policy measures are often untargeted towards energy poor groups, and do not include public participation or access to advice/information about energy efficiency.

In the context of energy efficiency in buildings, **split incentives**[22] are associated with cost recovery issues related to energy efficient renovation investments, as the financial obligations and rewards of these investments are not effectively distributed among the landlords and tenants. Especially, when it comes to the PRS, it is **one of the main barriers when implementing energy efficiency policies to tackle energy poverty**.

Split incentives are problematic for building owners and landlords, because application processes for accessing finance can be extremely complicated and time-consuming. Receiving a loan from a bank often requires financial stability and a good credit score, which excludes more vulnerable groups and energy poor households.

One-time payments, typically employed during winter or crisis situations and automatically deducted from the energy bills of low-income groups, lack the provision of long-term support or ongoing financial assistance, and involve no participation or engagement in energy matters.

Government intervention is needed, where the increasing demand for additional controls means that the deregulated market does not provide the incentives for investment. Two main arguments are observed in current political debates on the (de/re)regulation of landlordism. Both touch upon the benefits of the free market versus the social costs of an unregulated sector:

- The 'ethical argument with an economic consequence': landlords are in a position of power over their tenants, thus, to protect tenants, landlords should be regulated.
- The 'economic argument with an ethical consequence': regulating landlords imposes costs, which will in turn be imposed on the tenant.

A comprehensive study about the regulation of rents in France, England, Germany, Spain, Sweden, and the Netherlands shows that rent regulation tends to protect the tenants but offers few benefits for landlords and thus remains unpopular among landlord groups[23].

Only a few current energy efficiency policies in housing attempt to overcome regulatory and political barriers, as this can often be a contentious or sensitive topic amongst the PRS' different stakeholders. The most vulnerable tenants are politically not visible due to lack of data, which makes it impossible to design and implement energy efficiency of buildings measures and protect the energy poor and most vulnerable tenants.

[22] "Split incentives" refer to any situation where the benefits of a transaction do not accrue to the actor who pays for the transaction.

[23] Further details about this study can be retrieved from Burbidge, M. et al. (2023). Deliverable 2.8 – Structural Factors Impacting Energy Efficiency Policy Implementation in the European PRS. University of Manchester, United Kingdom: ENPOR Project

### 4.1 Challenges and Barriers

Many energy poverty policies do not target adequately the groups that should benefit from the envisaged actions. Energy efficiency policies are often extended only to those living in moderate energy poverty, hence not capturing the low-income groups that cannot invest in a renovation, requiring a full investment cost coverage. Given the rising living costs and the energy crisis, and the associated stagnation of wages in the face of inflation, there is an urgent need for systematic, continuous, and well-funded public support policies that are not just emergency measures. Starting from these considerations, **ENPOR research identified five key barriers**:

1 Financial
2 Social
3 Political/Regulatory
4 Technological
5 Geographical

Our survey[24] showed that financial barriers are addressed as the most critical among all the different stakeholder groups, except for the representatives from policy organizations/think tanks, who rated political/regulatory barriers as the most important category. Issues surrounding renovations in multi-family buildings and homes in multiple occupancy where conflict may arise is widespread barrier to carry out renovation measures. The invisibility of PRS tenants, lack of coherence in the sector and the relatively small size of the sector compared with homeownership in many European countries are also worth to mention.

The ENPOR stakeholder survey also found that many current retrofit financing schemes are targeted at owner-occupiers only and are not open to landlords or tenants, or do not adequately cover the specificities of the PRS. At the same time, financial barriers were consistently rated as the most important category of barriers to implementing energy efficiency measures in the PRS across Europe. The problem focuses on the quality of such schemes, as tailored, accessible and targeted funding for landlords with energy-poor tenants in the PRS is often lacking.

[24] Burbidge, M. et al. (2023). Deliverable 2.8 – Structural Factors Impacting Energy Efficiency Policy Implementation in the European PRS. University of Manchester, United Kingdom: ENPOR Project

The detailed list of identified barriers

| Identified Categories | Identified Barriers |
|---|---|
| Financial | • Split incentives<br>• Lack of direct financial incentives to landlords<br>• High upfront costs<br>• Lack of funding schemes that target the PRS<br>• Expected return on investment<br>• Inability to pay rent in case of rent increase<br>• Insufficient evidence that energy efficiency increases property sale or rental value |
| Technological | • Lack of information (for example on available technologies)<br>• Lack of technological knowledge for implementing effective solutions<br>• Complex tenure patterns<br>• Use of technologies |
| Political/Regulatory | • Political invisibility of the PRS, lack of political interest<br>• No definition of energy poverty/not a political priority in member state level (where applicable)<br>• Lack of data on energy poverty amongst PRS tenants<br>• Lack of targeted policies/best practice schemes to follow<br>• Lack of energy labelling and mandatory efficiency schemes<br>• Regulation vs Deregulation debate<br>• Differing levels of political devolution with responsibility for energy efficiency policy<br>• Complex tenure patterns in apartment buildings |
| Social | • Stigmatizing and time-consuming, complex processes and procedures to access funding<br>• Tenant and landlord mistrust in governmental policies<br>• Prevalence of small-scale, low-income landlords<br>• Broader social vulnerability in the sector (prevalence of low-income groups, single parents, ethnic minorities)<br>• Lack of adequate skills and training in the workforce, or a lack of workers more generally<br>• Gender-blind energy policy |
| Geographical | • Climatic difference<br>• Varying housing legacies between national, regional and local contexts |

# 5 POLICY RECOMMENDATIONS

In this section, we put forward an overall framework of recommendations and best practice for alleviating energy poverty in the PRS, based on the findings of the ENPOR Project. The recommendations are based on results of 10 policy measures improvements selected for the scope of the project. They are aimed to support national and regional state as well as municipalities' policy makers and bring together solutions, and best practices associated with energy efficiency improvements in the PRS. The development of energy efficiency policies as part of the National Energy and Climate Plans required by the EU, following the combination of these key and detailed recommendations, is a strong guide for Member States to meet the demand to reduce energy poverty in their territory.

**All Member states should set up a framework** that diagnoses energy poverty, as well as monitor their progress in tackling energy poverty adjusting their existing policy framework and adding new measures. Per ENPOR recommendations, this framework should be based on **a combination of measures with comprehensive policy approaches that would entail better landlord targeting, pushing for energy efficiency through networking, fostering a sense of responsibility in the neighborhoods, and improving local framework conditions**. Member states should establish revolving funds that support investing in energy efficient renovations in the PRS dwellings with low-income households as inhabitants. To ensure the success of the investments, these programmes' spatial targeting must consider the particularities of the local context and the community's needs, creating relations of trust.

ENPOR developed **a matrix to highlight the multiple pathways** for energy poverty alleviation in the PRS, including regulatory, financial, and social measures. The representation of and cooperation with different stakeholders involved in the PRS is of key importance to increase social acceptance of the energy efficiency policies in place. This framework is recommended to be co-designed and set up by involving national and local stakeholders, where all participants should aim to co-create and subsequently implement the agreed measures for the PRS. Such measures should be:

- Inclusive,
- Targeted and tailored to the needs of energy poor population,
- Easy-to-access,
- Long-term and continuous.

Matrix of multiple pathways towards solutions

| Categories | Barriers | Solutions |
|---|---|---|
| **Financial** | • Split incentives<br>• Lack of direct financial incentives to landlords<br>• High upfront costs<br>• Lack of funding schemes that target the PRS<br>• Expected return on investment<br>• Inability to pay increased rents in case of increase<br>• Energy efficiency doesn't increase sale or rental value of the property | • **Long term financial instruments (at least 10 years), technology, and information to invest in energy efficiency**<br>• Profiling of non-interested landlords<br>• **Better targeting** of landlords<br>• Energy labelling of properties: displaying energy performance certificates, including the effect on heating costs<br>• **Representation** of landlords: landlords joining an association, to increase capacity and up-to date legislative knowledge on retrofitting<br>• **Tax reductions**: reducing the risk of |

| | | |
|---|---|---|
| | | investment and balancing the impacts for tenants |
| **Technological** | • Lack of information (for example on available technologies)<br>• Lack of technological knowledge for implementing effective solutions<br>• Complex tenure patterns<br>• Use of technologies | • **"One-Stop Shops" or dedicated Energy Agencies**<br>• **Energy labelling** of properties: include the effect on heating and cooling with electric devices costs in energy performance certificates<br>• Licencing: quality of the property is licensed |
| **Political/ Regulatory** | • Political invisibility of the PRS, lack of political interest<br>• No definition of energy poverty/not a political priority on member state level<br>• Lack of data on energy poverty amongst PRS tenants<br>• Lack of targeted policies/best practice schemes to follow<br>• Lack of energy labelling and mandatory efficiency schemes<br>• Regulation vs Deregulation debate<br>• Differing levels of political devolution with responsibility for energy efficiency policy<br>• Complex tenure patterns in apartment buildings | • Clearer responsibilities for housing management<br>• **Energy labelling** of properties: include the effect on heating and cooling with electric devices costs in energy performance certificates<br>• Requirements to improve the quality of properties which do not meet basic defined standards<br>• Participation: engagement of, and cooperation with, various stakeholders<br>• Energy efficiency and energy poverty **policies explicitly targeting vulnerable households, identifying the needs of energy-poor households**<br>• Prohibiting energy disconnections and banning pre-payment meter installation in households with children<br>• **Special loans and subsidies for energy renovations** targeted at vulnerable women and families |
| **Social** | • Stigmatising and time-consuming, complex processes and procedures to access funding<br>• Tenant and landlord mistrust in governmental policies<br>• Prevalence of small-scale, low-income landlords<br>• Broader social vulnerability in the sector (prevalence of low-income groups, single parents, ethnic minorities)<br>• Lack of adequate skills and training in the workforce, or a lack of workers more generally | • **Identifying the needs** of energy-poor households<br>• **Networking**, **Participation and awareness-raising: engagement of, and cooperation with, various stakeholders**<br>• "One-Stop Shops" or dedicated energy agencies<br>• Requirements to improve the quality of properties which do not meet basic defined standards: Preventing disproportionate total rent increases due to energy retrofits, balancing the PRS with interest in homeownership and social housing[25] |

[25] This recommendation has been produced by the ENPOR project, and does not necessarily reflect the views of UIPI.

| | | |
|---|---|---|
| | • Women as 'key absorbers of energy policy' BUT energy policy is seen as 'gender blind' – tailored to the 'average' consumer | • Community-based approaches<br>• Raising awareness about the choice of properties<br>• Ensuring that care activities are incorporated and understood when carrying out household energy needs assessments<br>• Accounting for the costs of childcare provision when determining income thresholds for subsidies, so that families with children are not excluded as policy beneficiaries<br>• **Special energy tariffs** targeted at vulnerable women, elderly and families |
| **Geographical** | • Climatic difference<br>• Varying housing legacies between national, regional and local contexts | • **Municipalities'** cooling and heating plans<br>• **Urban planning** and renewable energy system planning<br>• Strategies for **rural areas** |

ENPOR implemented a co-creation process in all countries to support the development for the inclusion of energy-poor households and their landlords in national renovation grants. Indeed, this methodology led to considerable changes in these policy measures and the co-creation process provided a forum for ongoing exchange and inclusive collaboration. **ENPOR stakeholders point to the benefits of networking between different areas. This network could improve the exchange of information (e.g. on available energy efficiency measures) and the identification of energy poor households and their needs,** while also supporting the collection of data on energy poverty in the PRS in a holistic way. A full description of this methodology can be found in the ENPOR report on Replicating REACT groups, documentation and guidelines[26] as well as in the ENPOR Report – Replication Plan on the possible ways of upscaling best practices[27].

### 5.1 Key Policy Recommendations

Regardless of the housing history and social system of a Member State, **general recommendations include:**

- Energy poverty should be **defined in national legislations**, with a single definition adopted.
- Increasing building energy efficiency in the PRS should be part of energy poverty alleviation strategies by **providing a link between rents and energy efficiency upgrade interventions on the buildings.** Such strategies should support landlords with **long term monetary incentive to invest** in energy efficiency and protect energy poor tenants from disproportionate total rent increase [28] and renoviction.
- Member states that have not transposed the *Energy Efficiency Directive 2018/2002* and the *Electricity Directive 2019/944 as well as the Renewable Energy Directive 2018/2001* in national law yet, should do it urgently, additionally ensuring:

[26] Vondung, F. et al. (2023). Deliverable 4.2 Documentation and guidelines for replicating REACT groups. Wuppertal Institute for Climate, Environment and Energy, Germany: ENPOR Project

[27] Pandolfi Edoardo, Deliverable 5.6: Replication Plan on the possible ways of upscaling best practices, ENEA - Agenzia nazionale per le nuove tecnologie, l'energia e lo sviluppo economico sostenibile, ENPOR

[28] This recommendation has been produced by the ENPOR project, and does not necessarily reflect the views of UIPI.

  - public intervention and set prices for the energy supply to energy poor households when needed,
  - obliging energy suppliers to provide adequate information on alternative measures to disconnection sufficiently in advance of any planned disconnection.
- **Professional or technical advice**, **one-stop-shops and renovation campaigns in cooperation with municipalities** as technical support is suggested **to accompany financial support** for energy efficiency upgrades of buildings with energy-poor tenants and landlords.
- Linked to technical advice, **funding training and information measures for social and health workers** to identify and support vulnerable people at risk of fuel poverty is a powerful combination of measures.
- **Match energy advice (materials), outreach channels and messaging to the diverse realities** of energy poor households in the PRS. Policies must be inclusive of all gender identities, accounting for **gender differentiated needs of women and families**, and be based on sex-disaggregated data that is systematically collected on a regular basis.
- An enabling, **supportive and continuous framework for municipalities and relevant stakeholders to implement** relevant measures and provide funding for long-term implementation and **monitoring of the designed measures and to gather continuous data**.
- Member States should put in place support and information measures on **access to renewable energy and renewable energy communities that enable new business models or dedicated subsidies that target the energy poor**.

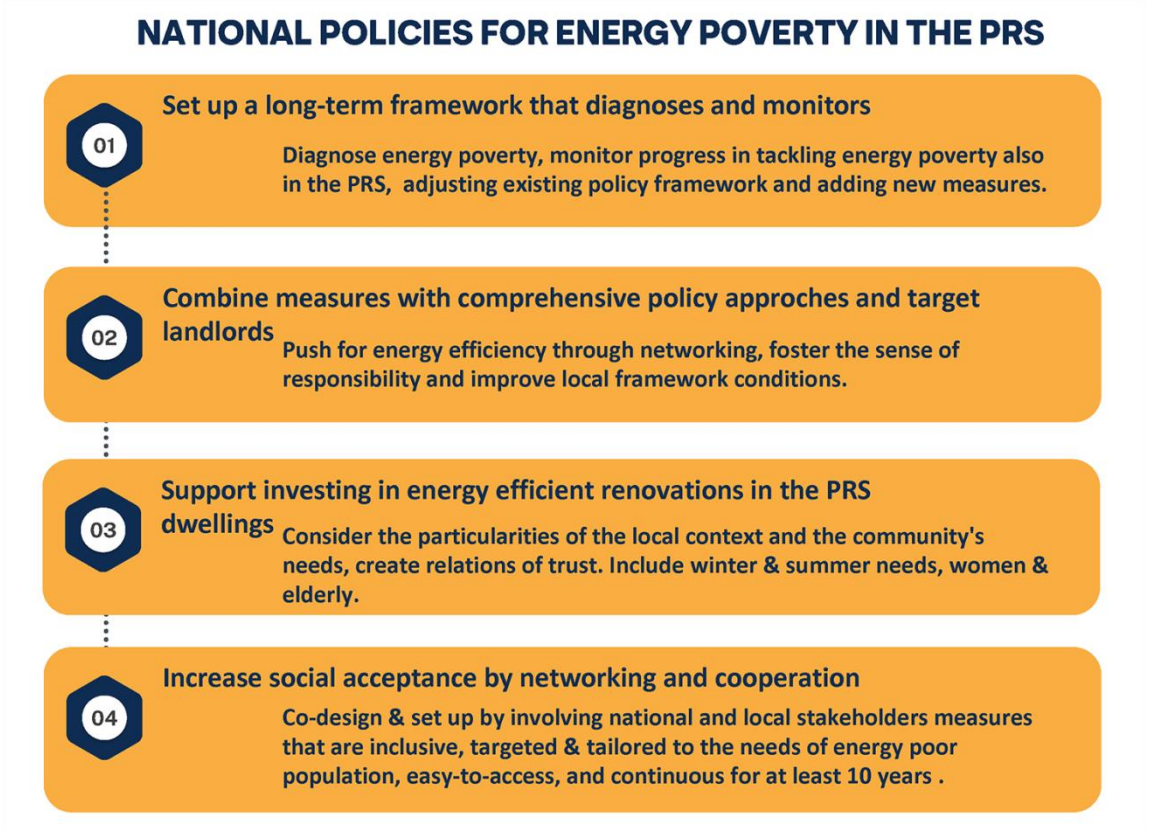



**Figure 4 Summary of key ENPOR recommendations**

## 5.2 Energy Efficiency Improvement Grants

The structural causes of energy poverty disproportionately affect socially and economically vulnerable households as well as energy poor households in rental situation. To address this challenge, more investment in building renovation is needed in the homes where vulnerable citizens live. National and regional renovation grants are the most used policy measure to increase the renovation rate. In ENPOR, these measures were further developed to better address energy poverty in the PRS. The implementation of renovation grants to support both landlords and tenants is critical in addressing energy poverty in the PRS. **Through the ENPOR co-creation process, it was found that the redesign of such measures with active stakeholder involvement is essential for the effective alleviation of energy poverty in the PRS**[29]. Following the detailed stakeholder engagement process applied, several recommendations for national policy making can be formulated. While there are many grants and loan programs for building renovations and retrofits, these are often not enough to stimulate investment in the building stock with the lowest rents.
Generally, renovation grants **should give priority to holistic improvements of energy efficiency in buildings, instead of single measures** (such as roof repair or façade improvement) **and they should also include energy poverty target groups in ownership and rental setting** with a framework that evaluates its impact to energy poverty.

Financial incentives are a primary way to tackle financial barriers and they can come in the shape of subsidies and tax incentives to promote renovation, from the EU to the local level. **Creating support packages for landlords** to effectively and efficiently finance renovations has been identified as a key mechanism to target the investment cost barrier. According to the landlord survey, the three most attractive incentives for renovation would be grants, subsidies and tax relief, in the form of **income tax, property tax or VAT reductions**. Collaboration with local banks to develop tailored services with nationally mandated ESCOs to offer innovative financing solutions, can accompany national measures.

Another approach identified during the validation of ENPOR results would entail the government to make **direct investments in the renovation of buildings and homes of vulnerable citizens** and **buildings with identified energy poor tenants**. This would increase the value of the landlords' assets, so the investment should take the form of a subsidy with the conditionality to not increase rents. Should the assets be sold or rented out at a higher price in the future, the landlords should be obliged to either partially or fully repay the state.

The long-term alleviation of the energy poverty should be achieved through the energy renovation of buildings. **The landlord-tenant dilemma** is one of the main reasons for energy efficiency investments facing challenges, alongside a variety of other financial concerns like high costs and lack of information. **An ideal policy would be one that equally considers both landlords and tenants, and it is based on financial incentives and models**. Such financial and fiscal incentives refer to provisions by governments, energy suppliers, and other sources that intend to overcome upfront costs, but are designed in a way to meet the special challenges that rented properties face. A methodology to quantify and share the benefits among landlords and tenants is considered as the most effective approach to address the split incentives.

The Split Incentive[30] and the ENPOR Split Incentive Quantification Tool

[29] Vondung, F. et al. (2023). Deliverable 5.2 Key findings and inspiring cases. Wuppertal Institute for Climate, Environment and Energy, Germany: ENPOR Project. Retrieved from www.enpor.org

[30] "Split incentives" refer to any situation where the benefits of a transaction do not accrue to the actor who pays for the transaction. In the context of energy efficiency in buildings, split incentives are linked with cost recovery issues related to energy efficiency upgrade investments due to the failure of distributing effectively financial obligations and rewards of these investments between concerned actors.

Financing energy efficient renovations for landlords in energy poverty or building owners with energy poor tenants in the building could be a very expensive measure, depending on how broad the objective is. Current funding for renovations and refurbishments could be reallocated with more targeted funding to vulnerable and energy poor household, (while other fiscal measures, such as tax incentives could be used for higher income groups).

Quantifying the split-incentive on a national level provides essential information for policy design to establish such subsidies and financial instruments tailored both to landlords and to tenants. Once the degree of split-incentive is calculated, the results contribute to accelerating the renovation rate. In the case of energy poverty, if the split incentive is higher and without appropriate subsidy rates, the investments will not take place. Especially in the PRS it is one of the main barriers to implementing energy efficiency policy measures. The European Union's Energy Efficiency Directive requires Member States to evaluate and, if necessary, take appropriate measures to remove regulatory and non-regulatory barriers to energy efficiency, such as split incentives, without prejudice to the basic principles of the property and tenancy law of the Member States. Most EU Member States have no significant studies or estimations on the extent of the "split incentives". This can contribute to the design of renovation policies without significant impact for landlords and tenants in PRS poverty.

The ENPOR project quantified this gap with the "split incentives" tool. **This tool[31] identifies the share of the benefits of energy efficient upgrade of buildings between landlords and tenants. With this tool the user can quantify the appropriate allocation of costs or subsidy rates for both sides, towards specific renovation scenarios in several geographical and national contexts**. There is no uniform share of costs in all countries, but this is dependent on the type of buildings, the income category and the benefits accrued to landlords and tenants from the renovation. It is thus important that prior to implementing future financing schemes for renovation, such quantifications become available to optimize public support.

### 5.3 Mandatory Energy Performance Standards

Require mandatory building energy efficiency assessments for worst performing buildings with vulnerable tenants on an annual or bi-annual basis and impose penalties for non-compliance.

- Set clear targets for energy efficiency improvements and deadlines for compliance.
- Make sure that energy performance certificates are applied to renovated dwellings and tie renovation grants to minimum standards as conditions.

### 5.4 Strengthen Existing and Set Up New Policy Measures: Incentives for Property Improvements for Landlords

Provide policies and financial instruments to support landlords, relevant information, as well as access to finance and technology by:

- Run renovation grants for at least 10 years and include eligibility criteria in the grants design that capture different social, economic and energy related aspects of energy poverty including tenure status.
- Offer financial incentives, such as tax credits or grants, to landlords who invest in energy-efficient upgrades and encourage the adoption of renewable energy sources.
- Make grants and subsidies easily accessible.

[31] https://www.enpor.eu/the-enpor-split-incentive-tool/

- Encourage landlords to invest in renewable energy sources through incentives and subsidies, reducing long-term energy costs.
- Support cluster renovations, district-wide multi-building renovation with the necessary simplifications for joint procurement and measures to improve the capacity of associations.
- Provide adequate incentives for the full renovation of historic buildings.
- Introduce enabling regulations and financial support that allow to technical implementation of renewable energy communities that support energy poor households also as tenants.
- Simplify grant, subsidy and tax reduction landscape, application procedure and reduce bureaucracy.

### 5.5 Improve Tenant Rights and Protections

#### 5.5.1 Energy Bills Transparency

- Ensure tenants have access to clear and accurate information about energy consumption and costs, promoting energy-saving behaviours.
- Ensure that information on district heating contracts is transparent. Provide information on potential contract lock-ins.

#### 5.5.2 Tenant Protection in Energy Efficiency Upgrades of Buildings

Renovations should be carefully planned in order to significantly reduce energy use and thus save costs for the energy poor tenant and increase the value of the property for the owner in the PRS. Nevertheless, environmentally friendly materials should be used to reduce the CO2 footprint. It should be borne in mind that homeowners with limited financial resources often cannot afford renovations and need to be specifically supported. As energy-poor households are not concentrated in specific buildings, it will be difficult to target the policy defining and reaching the beneficiaries.

- Protect energy poor tenants from renovictions by regulation and grant/subsidy conditions.
- Allow tenants to request energy efficiency improvements and ensure that landlords respond promptly.
- Increase the role of tenants in the apartment building renovation process and include them into the decision-making process together with the owner of the rental apartment (or as its representative).
- Establish a legal framework to facilitate cost sharing between landlords and tenants for energy efficiency improvements. These policies should ensure that funding mechanisms do not inadvertently place the burden on vulnerable tenants or social security programmes, e.g. through the protection from disproportionate total rent increase [32], energy retrofit one-stop-shops at local level.
- Establish one-stop shops to support landlords through the renovation journey and make sure that the one-stop-shops are enabled to address the split incentive and tenant-landlord dilemma.
- Introduce mediation between landlords and tenants, and guidance for landlords before renovictions or coercive actions take place.
- Create special loans and subsidies for energy renovations targeted at vulnerable women and families.
- Energy Performance Certificates should communicate economic incentives, such as estimates of heating costs or cooling costs via electric devices, and serve as a control mechanism for energy efficient renovation grants. Energy efficiency audits shall be used to support improvements of worst performing buildings.

[32] Property owners' opinion: rent caps increase the split incentives, limit buildings' improvements, thus influence the availability of affordable housing.

### 5.6 Enhance Access to Financial Assistance

#### 5.6.1 Accessible Green Financing for Property Upgrades

- Establish accessible and low-interest green financing options for landlords.
- Partner with financial institutions to provide loans for energy-efficient improvements.
- Create a national fund to support energy-efficient green retrofits for energy poor landlords in the PRS.
- Bundle information and support to Landlords and Tenants in the municipalities' one-stop-shops.

#### 5.6.2 Financial Support for Vulnerable Tenants

- Create a targeted financial support program for low-income tenants to help cover energy bills during extreme weather conditions.
- Create special energy tariffs targeted at vulnerable women and families.
- Promote collaboration with local charitable organizations and energy providers to identify and assist vulnerable households.
- Develop win-win scenarios to overcome the split incentive, such as a tenants' electricity law that allows landlords to profit from selling electricity to tenants while tenants can save on electricity costs, thus balancing the relationship between tenants and landlords.
- Set up government intervention for low-income student housing in the form of establishing non-profit social rental organisations managed by national social services or non-governmental organisations.
- Set up government intervention for low-income elderly housing in the form of establishing non-profit social rental organisations managed by national social services or non-governmental organisations.

### 5.7 Promote Education and Awareness

- ENPOR partners recommend the establishment of a support framework to ensure that appropriate communication and training measures for implementing agencies and municipalities enable relevant stakeholders to support citizens and to set up and manage internal adaptation processes.
- Communication and information materials should take into account the social, cultural and linguistic background of tenants and building owners.
- The development of target-group-specific information materials, using simple and visual language, is an effective way of improving support for energy-poor households. These materials should be continuously developed and expanded, and then integrated into existing support for energy-poor households.
- Incorporate awareness raising and capacity building materials into initiatives such as clean heating programmes and inefficient appliance replacement schemes. These materials have the potential to improve the quality of support and advice to energy poor households and should be used accordingly.

#### 5.7.1 Tenant Empowerment

- Target energy poor households with tailored information and communication campaigns with special attention to the channels/means of communication used and the involvement of trusted organisations with access to reach the target group.
- Develop educational materials and campaigns in their language to inform tenants about energy-saving practices and available resources.
- Encourage landlords, building managers, energy advisors and social workers to provide tenants with information on energy efficiency features within the property.
- Consider the upgrade of existing measures such as combining energy advisory services with

social advice: establish Social Energy Advice.

- Develop comprehensive energy education programs for tenants, including guidance on reducing energy consumption.
- Promote the use of energy-efficient appliances and practices.
- Establish user-friendly online platforms with energy-saving tips and resources.

### 5.7.2 Tenant Advocacy and Support

- Create tenant advocacy groups and organizations that can represent tenant interests.
- Offer financial support and legal aid for tenants facing energy-related issues.
- Facilitate tenant-landlord mediation and dispute resolution mechanisms.
- Integrate actors in the social domain to facilitate outreach and promote interdisciplinary capacity building.
- Strengthen tenant rights and protections in rental agreements, including clauses on energy efficiency standards.
- Implement protection from disproportionate total rent increase to prevent landlords from passing on energy efficiency costs to tenants[33].
- Prohibit energy disconnections and ban pre-payment meter installation in households with children.
- Account for the costs of childcare provision when determining income thresholds for subsidies, so that families with children are not excluded as policy beneficiaries.

### 5.7.3 Landlord Education and Support

One stop shops provided by municipalities are trusted point of reference to tackle energy issues related to energy efficiency interventions. Support financing personnel and running costs for municipalities.

- Secure financial basis to fund diversified outreach activities and customized support to landlords and to enable impact monitoring and evaluation
- Link with other activities aiming to induce structural improvements of building efficiency (e.g., renovation grants)
- Promote a wider use of digital tools in the housing association participation processes.
- Support the full renovation of apartment buildings and create additional measures for supporting the building associations lacking the renovation capacity in the process of full renovation. Building renovation plans that allow phased renovation in a planned timeframe support low-income landlords.
- Support private sector landlords' membership of national landlord associations, as a means of establishing a collective voice and form of accreditation, and the consideration of clearer powers for tenants to demand energy efficiency retrofits.

## 5.8 Strengthen Monitoring and Enforcement: Regulatory Compliance

- Increase the capacity and resources of regulatory bodies responsible for monitoring and enforcing energy efficiency regulations in the PRS.
- Implement periodic inspections to ensure compliance with energy performance standards and to monitor energy efficiency improvements.
- Ensure that care activities, such as medical needs and childcare-related activities, are incorporated and understood when carrying out household energy needs assessments.
- Invest in the training and capacity of regulatory bodies to enforce energy efficiency standards effectively.

[33] This recommendation has been produced by the ENPOR project, and does not necessarily reflect the views of UIPI.

## 5.9 Implementation Strategy: A Phased Approach

Implement the recommendations in a phased approach, starting with pilot programs in selected regions before expanding nationally. Involve all relevant stakeholders already in the design of the policy measure, to ensure trust and effectiveness. Link energy efficiency and social advisory measures with the implementation phases of renovation grants, aiming to induce structural improvements of building efficiency to account for the limited agency of energy poor tenants to reduce their energy demand.

### 5.9.1 Collaboration with Stakeholders

Close collaboration among key stakeholders, including with and among national, regional and local government agencies, energy advisors, and social organisations, is crucial for developing and implementing effective measures to support energy poor households. Furthermore, intermediaries with direct access to affected households should be involved in the process. This enables a more effective identification of needs and the implementation of tailored support measures.

- National and regional bodies should engage with landlords, tenants, energy companies, and local authorities to ensure a collaborative approach to implementation.
- Secure financial basis to fund diversified outreach activities and customized support.
- Secure financial basis to enable impact monitoring and evaluation.
- Integrate actors in the social domain to the co-design and implementation of policy measures to facilitate outreach and promote interdisciplinary capacity building.
- Ensure close collaboration of key stakeholders and inclusion of intermediaries.
- Link with other activities aiming to induce structural improvements of building efficiency (e.g., renovation grants).

### 5.9.2 Funding Allocation

Allocate government funds to support financial incentives, implementation partners such as the municipalities' one-stop-shops, renovation communication campaigns, education programs, and regulatory enforcement. The training of social counsellors in energy-related matters, such as the Social Energy Advice in Austria, has proven successful in expanding the network of easily accessible counselling for energy poor households, particularly in the PRS. This model can be widely disseminated and expanded to reach a broader audience, helping to provide more extensive support to those in need.

## 5.10 Monitoring and Evaluation

Set up effective measurement and monitoring systems to gather data on energy poverty in the PRS and policy impacts to inform formative evaluations. For this, a shared definition on energy poverty should be established to be able to identify energy poor households. The monitoring could be achieved by developing suitable indicators and enhancing the cross-sectoral collaboration.

### 5.10.1 Key Performance Indicators

Establish Key Performance Indicators in national policy frameworks to measure:

- Reduction in energy consumption in the PRS.
- Reduction of energy poor households in the PRS.
- Increase in the number of energy-efficient rental properties.
- Tenant satisfaction with energy efficiency improvements.
- Reduction in health-related issues associated with energy poverty.

### 5.10.2 Data Collection and Reporting

- Establish a comprehensive data collection and reporting system to track progress and identify areas for improvement.

- Set up monitoring system to gather data on energy poverty prevalence and policy delivery and impacts to inform formative evaluations.

# 6 RECOMMENDATIONS OF SUCCESSFUL PRACTICES

## 6.1 Key to successful practices: co-design

The co-designed ENPOR policies have been positively received by the stakeholders and have brought tangible improvements in addressing the identified challenges of tackling energy poverty in the PRS[34]. A key strength of the improved policy measures is the fact that all measures have been improved with a collaborative approach involving relevant stakeholders since the very beginning. The co-design model developed by ENPOR has been successful in delivering results and can be considered a best practice to be replicated. The necessary steps to set up and implement the co-design process are described in detail in ENPOR's Replication Plan (D5.6)[35]. The co-creation process' main pillar is a specific group of stakeholders called Regional Action (REACT) groups. The members of the REACT groups are organisations involved in the energy efficiency value chain that can contribute to the shaping of policies to be more effective in bringing forward solutions for energy poor households in the PRS. Following the set-up process of the REACT groups, the co-design of measures is guided by a specific process that involves an initial analysis phase that informs the stakeholder engagement strategy and communication with the group members and target groups. The co-design itself takes place during several REACT Group meetings and Target group meetings. The Target group meetings and the REACT Group meetings inform each other during the process thus allowing a trustful and positive environment.

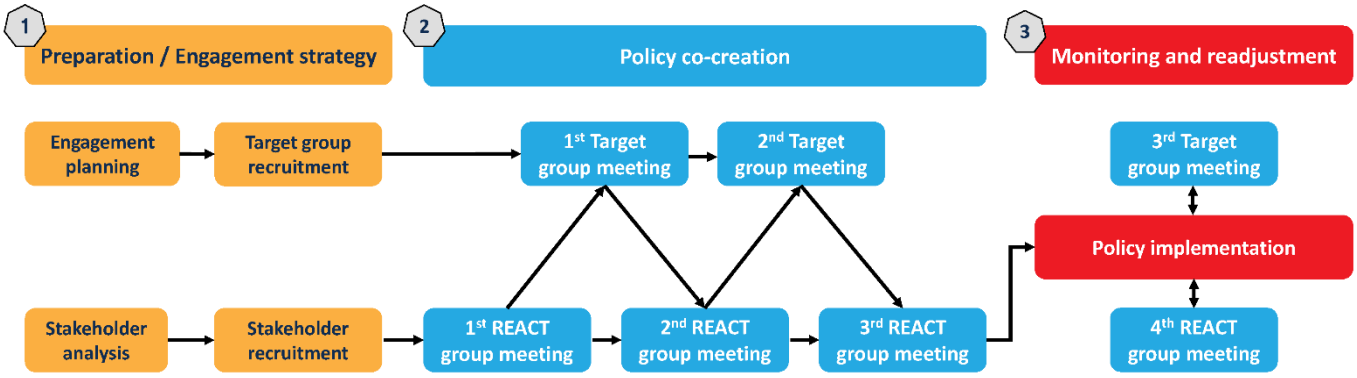



**Figure 5 The Co-creation Process by ENPOR**

Monitoring the impact of the co-created policy measure is key to being able to tailor the measure further to the identified needs. The monitoring framework developed comprises key performance indicators (KPIs) and simplified monitoring indicators to track the effectiveness of the policy and considers the EU governance which requires monitoring energy poverty levels, including the energy consumption of energy poor households and reporting on the implementation of energy poverty policies. There are two types of monitoring sets, one aims to capture the short-term impacts, while the other one the long-term impacts.

[34] Vondung, F. et al. (2023). Deliverable 5.3 Key findings and inspiring cases. Wuppertal Institute for Climate, Environment and Energy, Germany: ENPOR Project

[35] Pandolfi Edoardo, Deliverable 5.6: Replication Plan on the possible ways of upscaling best practices, ENEA - Agenzia nazionale per le nuove tecnologie, l'energia e lo sviluppo economico sostenibile, ENPOR Project.

Many of the same KPIs can be applied to the monitoring of different policies; however, key metrics and parameters might have to be adjusted according to the police type and country context.

### 6.2 Information and training tools

**Long-term campaigns and training programmes should be designed and financed to support energy efficiency improvements in energy-poor dwellings and provide information to building owners on how to finance such improvements without worsening the living conditions of the tenants**. A successful energy efficient design involves integrating social actors to facilitate interdisciplinary capacity building, linking campaigns and trainings with structural improvement measures like renovation grants. Collaborations with Energy Agencies and organizations like DIE UMWELTBERATUNG in Austria have produced tailored resources for energy-poor households, with the Netherlands emphasizing multilingual outreach and Germany showcasing practical, stakeholder-involved approaches, ultimately promoting sustainable energy consumption patterns for the future. As part of the policy co-creation process with stakeholders, a list of challenges for the successful implementation of the information and training instruments was identified. To read this list, we recommend to read the ENPOR policy analysis entitled "Key Findings and Inspiring Cases"[36]. The detailed description of each policy outcome is available in the ENPOR Policy Outcome Fiches[37].

On the basis of the experience developed by the REACT groups in the different countries, the following best practices should be followed when co-designing communication materials or providing training to reach energy-poor households:

- Match energy advice (materials), outreach channels and messaging to the diverse realities of energy poor households in the PRS. Involve energy-poor households in the pilot phase to test the materials. Consultation and feedback from the households themselves will ensure that the new measures have the desired impact with real added value.
- Involve local actors. Remember that willingness to accept support services is also based on trust. Many people fear stigmatisation if they use support services and may therefore refuse direct financial support.
- Direct transfer of material developed for energy poor tenants is not always possible because of the difficulty in identifying and then approaching them. Don't underestimate the role of the intermediary organisation (role (e.g. energy advisors or social support organisations, etc.) to implement and pass on these materials for assistance. Involve them in the co-creation process.
- Co-operation between energy coaches/advisors and social sector representatives with the right expertise is necessary. They will properly guide and help energy poor households to reduce their energy bills.
- Close cooperation with relevant local and national politicians and public administrations is strategic. They ensure recognition of the materials and their inclusion in the nationwide advisory services.
- Involve property management associations in REACT groups. They are important to reach energy-poor tenants.
- Consider language barriers. Translate materials into other languages identified as particularly relevant for advising energy-poor households with a migrant background. Collaborate with civil society organisations that work with migrant groups and recruit

[36] Vondung, F. et al. (2023). Deliverable 5.2 Key findings and inspiring cases. Wuppertal Institute for Climate, Environment and Energy, Germany: ENPOR Project

37 Vondung, F. et al. (2023). Deliverable 5.2 Pilot Outcome fiches – Analysis of the policies' outcomes. Wuppertal Institute for Climate, Environment and Energy, Germany: ENPOR Project.

multilingual energy coaches/advisers.

- Provide professionally designed and printed materials in all languages and make them available free of charge. In particular, organisations supporting households in the PRS, such as tenants' associations, should be prioritised.
- Emphasise comfort and health benefits in communication materials, as these are often secondary to cost savings.
- Use visual aids to convey advice and gamified self-experience activities to learn how to use energy-efficient appliances properly in the home.
- Students have shown a high level of interest in energy efficiency issues. Reach out to schools and universities to enable them to learn about energy efficient behaviours that can be implemented at home.
- Set up effective measurement and monitoring systems to gather data on energy poverty in the PRS and policy impacts to inform formative evaluations. For this, a shared definition on energy poverty should be established

**Access to relevant stakeholders is crucial in order to provide the impulse for new solutions.**

### 6.2.1 Good Practice: Development of the National Energy Efficiency Training and Information Programme in Italy

In Italy, efforts related to the improvement of contents on energy poverty, targeted actions for vulnerable groups and the PRS as well as developing specific communication materials for landlords, tenants and building managers were undertaken[38]. Awareness initiatives (surveys, engagement and training sessions) have also been carried out in high schools to engage students around the topics of energy, its relation to climate change and energy poverty.


**Figure 6 The cover of one of the ENEA guidebooks developed as part of the training and information measure**

[38] ENEA guidebooks for owners, tenants and building managers: https://www.enpor.eu/21-09-23-enea-the-italian-energy-agency-releases-guidebooks-for-tenants-owners-and-building-managers-to-save-energy/

### 6.2.2 Good Practices: Development of the Energy Advisory Programmes for low income and energy poor tenants in Austria, The Netherlands and Germany

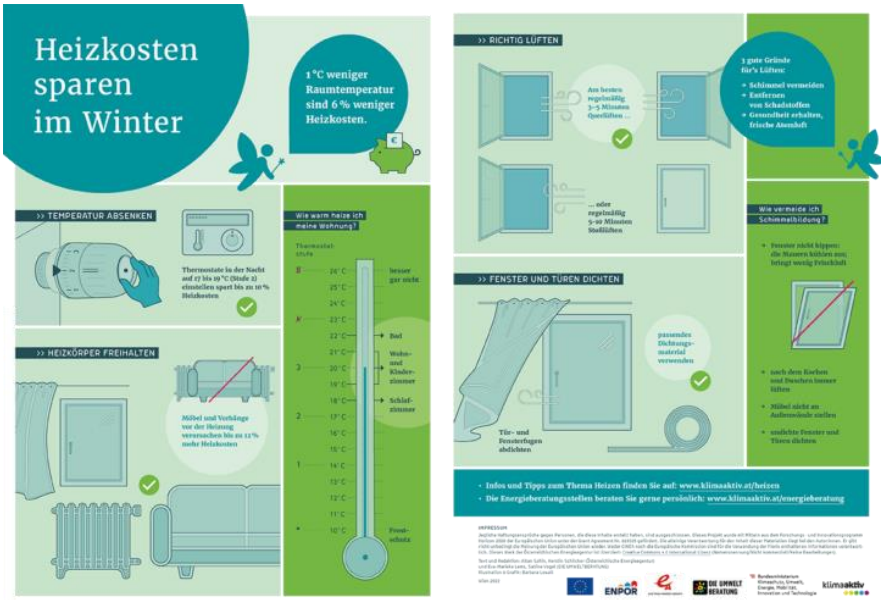



**Figure 7 Example of the energy poor tenant information materials developed in Austria**

In Austria and Germany, the co-creation focus was put on the development of visual and multi-language material[39] to more effectively convey information on energy efficient heating and ventilation within the respective programmes. In the Netherlands, a broader set of activities was implemented to support the Energiebox programme in identifying energy poor tenants via a dedicated tool, reaching out to them and providing tailored services to address different needs.

[39] Austrian Materials downloadable in all languages: https://www.enpor.eu/14-09-22-austrian-enpor-measures-in-the-energy-crisis/
German Materials: https://www.enpor.eu/13-02-23-german-electricity-saving-check-stromsparcheck-extends-its-heating-advice/


**Figure 8 Example of the energy poor tenant information materials developed in Germany with Stromsparcheck as part of the ENPOR activities**

REACT Groups recommend to establish:

- **Design Decentralised Consulting Services**: Establish decentralised consulting services at the local level, supporting existing institutions, and providing sustainable financial resources . can enhance support for energy-poor households. For raising awareness and knowledge, make use of a diverse pool of energy experts / coaches, who are trained to communicate effectively with different target groups in the PRS.
- **Implement Social Energy Advice and Enhance Trainings**: Trained social advisors offer low-threshold energy advice to vulnerable households, focusing on reducing energy consumption without significant investments and assisting with energy bill payments. Social workers and energy advisors need specialised training for effective care of energy-poor households. **Integrate actors in the social domain** to facilitate and increase outreach to energy poor tenants and promote interdisciplinary capacity building across different sectors relevant for addressing the different dimensions of energy poverty. Tailored courses at different qualification levels, involving representatives from the target groups, can enhance the authenticity and effectiveness of support. Involving individuals familiar with the cultures and languages of the target groups, especially women with migration backgrounds, can empower communities and improve advisory roles.
- **Integrate Approach to Energy Saving Measures**: Combining energy-saving measures with coaching, installation, and repeat visits proves most effective**. Tailoring communication channels** such as flyers, posters, emails, door-to-door visits, events, and collaboration with social networks is crucial. Make sure to understand the target group. **Match energy advice (materials), outreach channels and messaging to the diverse realities of energy poor households in the PRS**. Create targeted informative material that make use of visualisations and multiple languages, and that highlight connected benefits to energy

saving, such as increased health, comfort and safety.

- **Collect Data and Monitor Continuously**: Establish a monitoring system with suitable indicators and collaborate with statistical institutes. Make use of The Energy Poverty Dashboard (EPD) to assess policies, exchange knowledge, and facilitate dialogue between stakeholders. Continuous data collection supports the long-term evaluation of energy poverty and implemented measures.

### 6.3 Renovation Grants

Implementing grants to help both landlords and tenants to renovate their dwellings is crucial to tackle energy poverty in the PRS. The ENPOR co-creation process has shown that redesigning such measures with the active participation of those affected is essential to effectively address energy poverty in the PRS. A multifaceted approach to tackle energy poverty in the PRS through renovation grants is the starting point for each good practice.

The ENPOR process looked at the renovation subsidies of three countries: Croatia, Estonia and Greece. As part of the policy co-creation process with stakeholders a list of challenges for the successful implementation of the information and training instruments was identified. To read this list, we recommend to read the ENPOR policy analysis entitled "Key Findings and Inspiring Cases"[40]. The detailed description of each policy outcome is available in the ENPOR Policy Outcome Fiches[41].

On the basis of the REACT Group recommendations, the following list of suggestions can contribute to the successful implementation:

- **Inclusive Eligibility Criteria**: Develop a shared definition on energy poverty to be able to identify energy poor households. Design the grants with eligibility criteria that consider various aspects of energy poverty, such as social, economic, and energy-related factors, including tenure status. Evaluate the impact of these criteria on energy poverty.
- **Make the process of programmes design more transparent and open** to the public and relevant stakeholders, particularly landlords and tenant representatives. They should also be easy to implement and apply for, to avoid complex and bureaucratic processes.
- **Financial Support**: Finance the state renovation grant for at least 10 years. Employ and/or further develop the split incentives tool to increase transparency of shared benefits of energy efficiency renovations between landlords and tenants and tailor public subsidy programmes to differing constellations. Provide increased funding for rented buildings, coupled with regulations providing protection from disproportionate total rent increase, to overcome split incentives.42 Acknowledge the challenges in introducing regulatory measures to avoid market distortions and involve all responsible public authorities.
- **Develop a comprehensive energy poverty regulatory and policy framework**. Connect individual measures and strategies to the national policy landscape to address the absence of broader organizational and legal strategies.
- Create one-stop shops or dedicated energy agencies to offer comprehensive guidance and ongoing support to landlords and tenants. Address the complexities of implementing energy efficiency measures and low awareness in the PRS.
- **Prioritise renovation capacity** in regulations and legislations, focusing on improving entire buildings rather than individual components.

[40] Vondung, F. et al. (2023). Deliverable 5.2 Key findings and inspiring cases. Wuppertal Institute for Climate, Environment and Energy, Germany: ENPOR Project

41 Vondung, F. et al. (2023). Deliverable 5.2 Pilot Outcome fiches – Analysis of the policies' outcomes. Wuppertal Institute for Climate, Environment and Energy, Germany: ENPOR Project.

42 This recommendation has been produced by the ENPOR project, and does not necessarily reflect the views of UIPI.

- **Advocate for the full renovation of historic buildings**.
- **Support cluster renovation** with simplifications for joint procurement and measures to enhance association capacity. Support district-wide and foundation-wide multi-building renovation with necessary simplifications and support measures for improving the areas between buildings.
- **Measure and Monitor**: Develop effective measurement and monitoring systems to gather data on energy poverty and policy impacts. Use suitable indicators and enhance cross-sectoral collaboration for informative evaluations.
- **Encourage Tenants' participation in Decision-Making Processes**: Include input from tenants in the renovation process, involving them in decision-making as a consultative role alongside the owner or representative of the rental apartment.
- **Support for Building Associations**: Support the full renovation of apartment buildings using the national renovation grant. Create additional measures to aid building associations lacking renovation capacity in the full renovation process. Promote the wider use of digital tools in the housing association participation process.

**Good Practice: the National Reconstruction Grant of Estonia**

With Tartu's Energy Agency's lead, the Estonian renovation grant was further developed into the 'National Reconstruction Grant', where the co-creation process focused on formulating relevant recommendations to better mitigate the risks of energy poverty in the PRS and reduce shortcomings in the future. The policy effectively refines an existing renovation grant towards the improved targeting of buildings who are likely to be inhabited by low-income households, focusing on residential areas at the outskirts of cities. The policy targets apartment buildings, offering potential for significant energy savings. A shortcoming of this good practice is that it faces challenges in addressing the split incentive issue.

### 6.3.1 Good Practice: The Energy Upgrade of Buildings Programme in Greece

In Greece, the co-creation process focused on the "Energy Upgrade of Buildings" programme, with the REACT groups leading to the establishment of a national working group on energy poverty and a fund dedicated to energy poverty in the PRS. The collaborative approach also led to the commitment of 30 stakeholders to participate in the Energy Efficiency Obligations of Buildings policy, a success story that continues beyond the ENPOR timeframe. It was designed with the input of a wide range of stakeholders, including feedback from tenants vulnerable to energy poverty, as well as landlords, and it has been integrated with existing national and EU-level strategies to combat energy poverty, aligning them with broader policy and regulatory objectives. A shortcoming of the further development of the Grant is that it still needs to address the split incentives more in detail and incorporate the specifiers for the PRS in Greece.

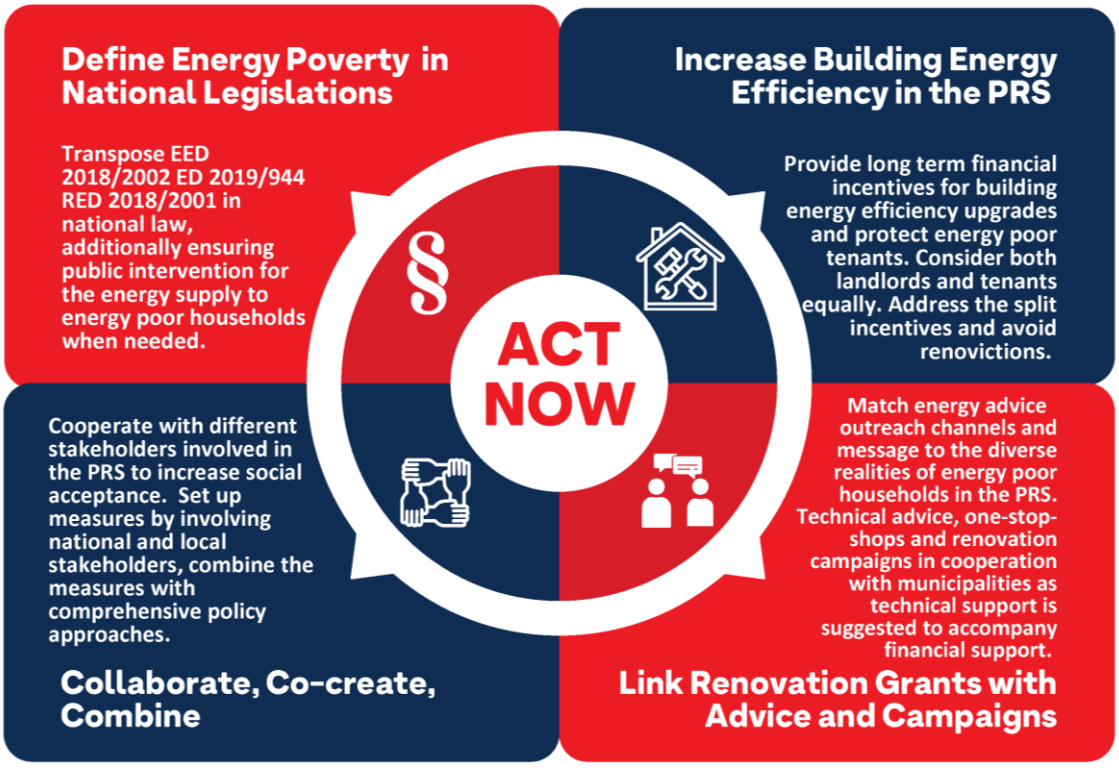
These good practices demonstrate that collaboration and data sharing between stakeholders working on the PRS can improve the overall effectiveness of the policy and lead to better decision making. Finally, the inclusion of awareness-raising activities can help to improve tenants' knowledge of energy bills and energy-saving measures.

### 6.3.2 Good Practice: National Programme for Renovation of Buildings in Croatia

The Croatian REACT group focused on the co-creation process of two sub-programmes, the "Energy renovation programme for multi-apartment buildings 2021-2030" and the "Energy renovation programme for single-family houses", by involving different stakeholders to enhance the inclusion of energy-poor households living in the PRS and the monitoring of the programmes' impact. These new programmes now include energy poverty aspects, an improvement that contributes to the alleviations of energy poverty also

in the private rented sector. A shortcoming of the latter is that it faces challenges in addressing the split incentive issue.

In Croatia, the REACT group proceeded with various events such as meetings, information days, workshops, round tables and more. These ensured a more successful implementation period for the programme "National Programme for Renovation of Buildings in 2021-2030" compared to its previous version (2014-2020). The identified amendments included structural improvements like the increase in the number and frequency of public calls, the expansion of the types of programmes offered and the diversification of the type of calls available. The collaboration involved an extensive network of stakeholders, including multiple city governments and central state offices. DOOR implemented comprehensive questionnaires in cities like Zagreb, Križevci, and Zadar, providing critical insights into citizen trust and the challenges faced by those in both social and energy poverty. The presence of Ministries such as the Ministry of Economy and Sustainable Development, Ministry of Spatial Planning and Ministry of Labour, Pension System, Family and Social Policy was reflected in the new policy design, particularly in the amendment of the ETS Directive and the establishment of a social fund for climate policy by 2026. The Environmental Protection and Energy Efficiency Fund's insights into public call implementation hurdles were particularly revealing, highlighting implementation challenges at the grassroots level.

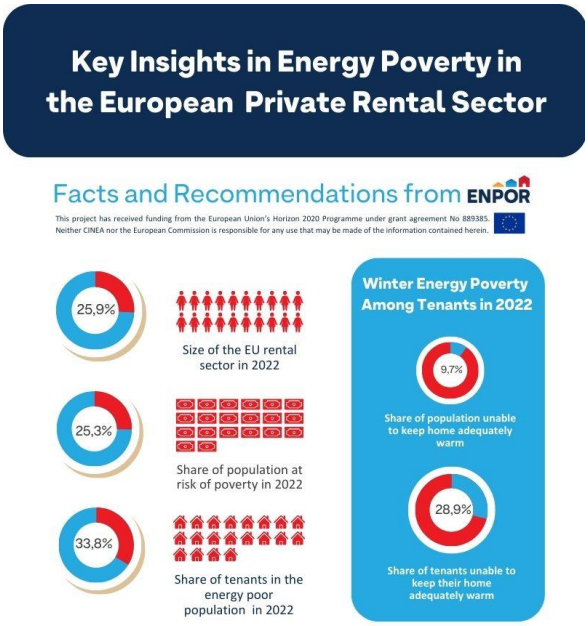


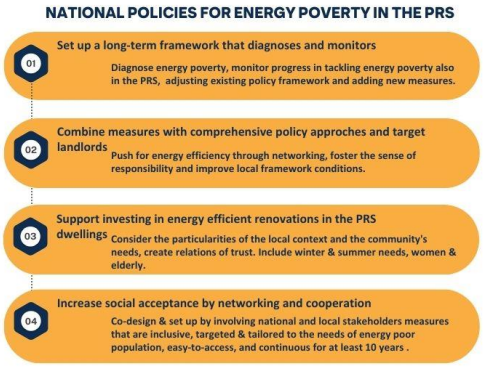
# 7 CONCLUSION

Energy poverty has negative impacts on tenants in the PRS across Europe and may be a major barrier when introducing measures to increase the renovation rate in Europe. Tenants who are affected by energy poverty may struggle to afford adequate heating and cooling in their homes, which can lead to health problems and reduced quality of life. Addressing energy poverty through public policy can help to improve the living conditions of tenants and reduce the negative impacts of energy poverty on their health and well-being. Alleviating energy poverty in the PRS or ensuring social equality and environmental sustainability that requires a multifaceted approach. The process requires a coordinated and multidimensional strategy tailored to the specific needs of affected households. By implementing the recommendations outlined in this policy paper, we can improve the lives of fellow citizens in reducing energy poverty and decrease greenhouse gas emissions at the same time. Improving housing conditions, empowering tenants, supporting landlords to improve the energy efficiency of their buildings will create a more equitable and sustainable future. This policy paper serves as a roadmap for government authorities and stakeholders to take meaningful action and address this critical issue effectively. In conclusion, addressing energy poverty within the PRS necessitates a constructive approach that effectively navigates the challenges and barriers, including the split incentive dilemma. A solution-oriented strategy, devoid of preconceived notions or stigmatisation, is essential to ensure the mutual benefit of all involved parties, including landlords and tenants. By fostering cooperation and understanding, we can create a framework that promotes sustainable energy practices, simultaneously improving living conditions for tenants and providing equitable incentives for landlords. In order to aid in the replication and implementation of practices and policies to alleviate energy poverty within the PRS, readers are encouraged to make use of the checklist for best practice replication, available here as *Recommendations for replicating best practices for energy poverty in the private rented sector.*

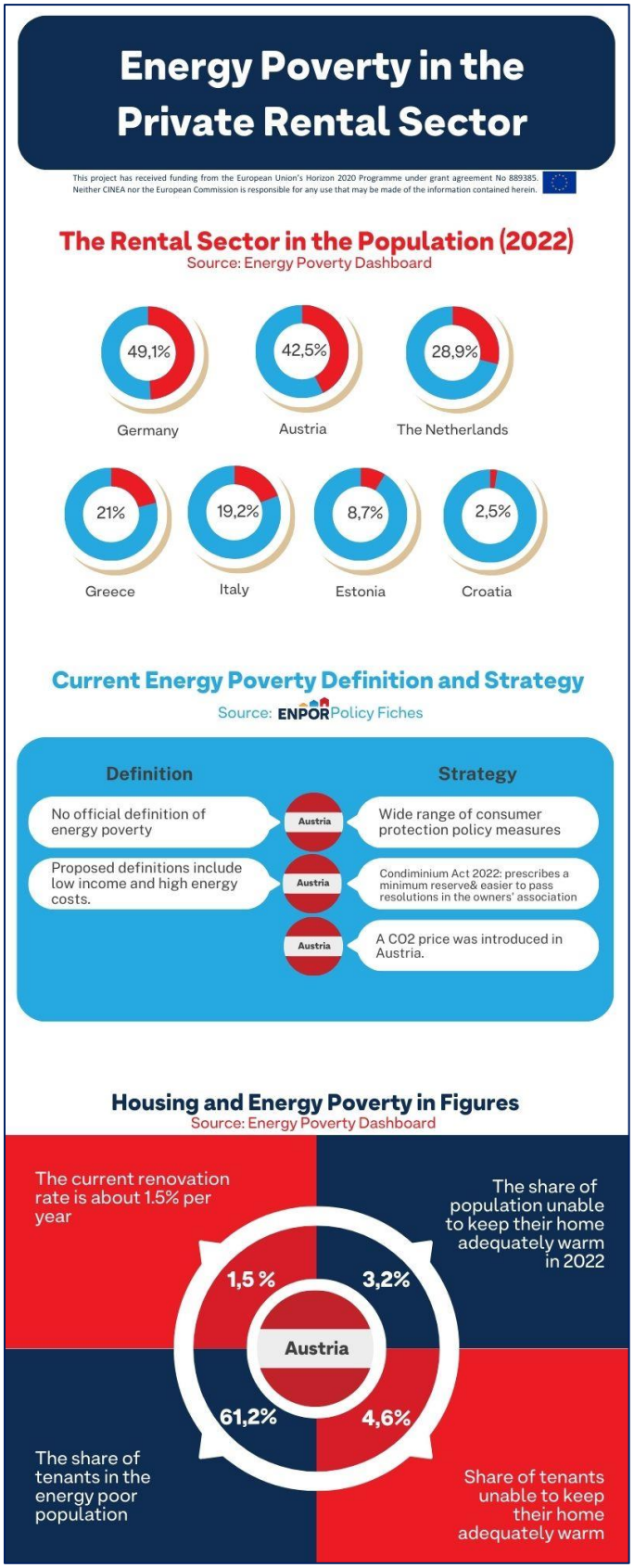
# 8 ANNEX: ENPOR INFOGRAPHICS FOR POLICY RECOMMENDATIONS

Key ENPOR Fact and Recommendations

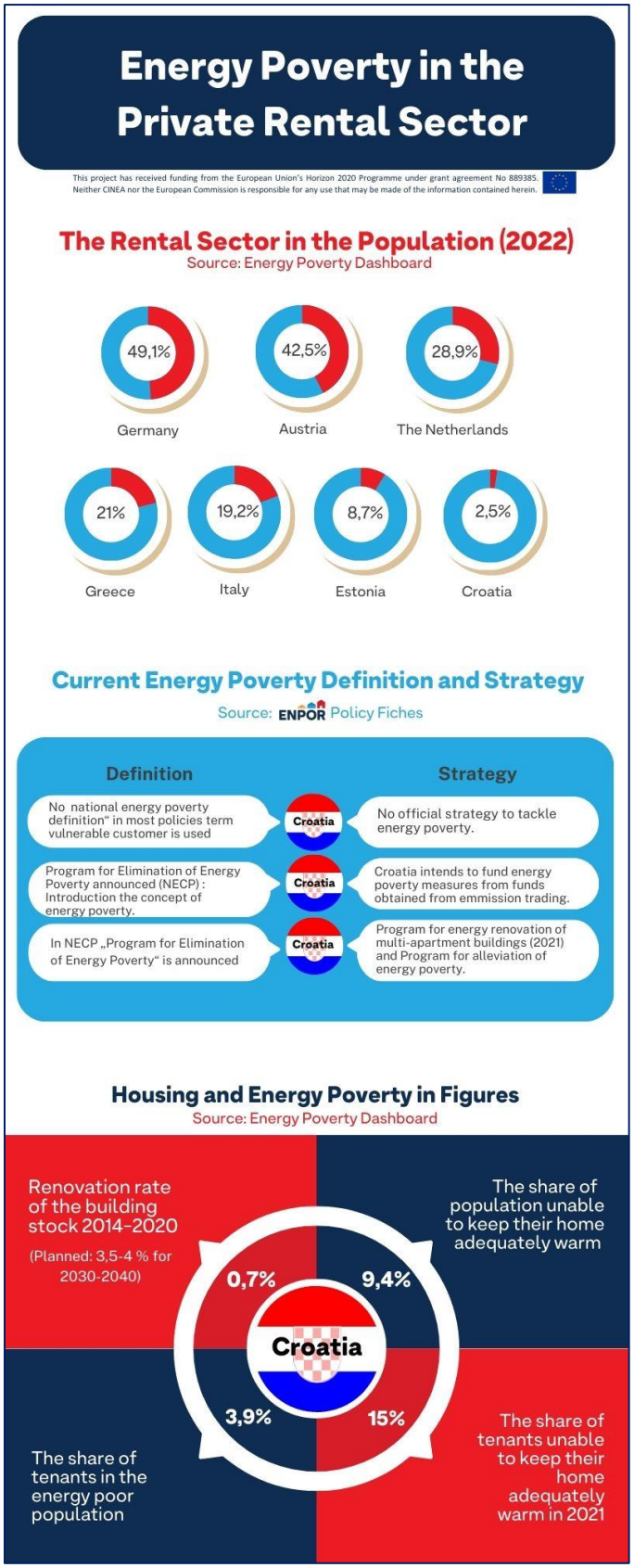


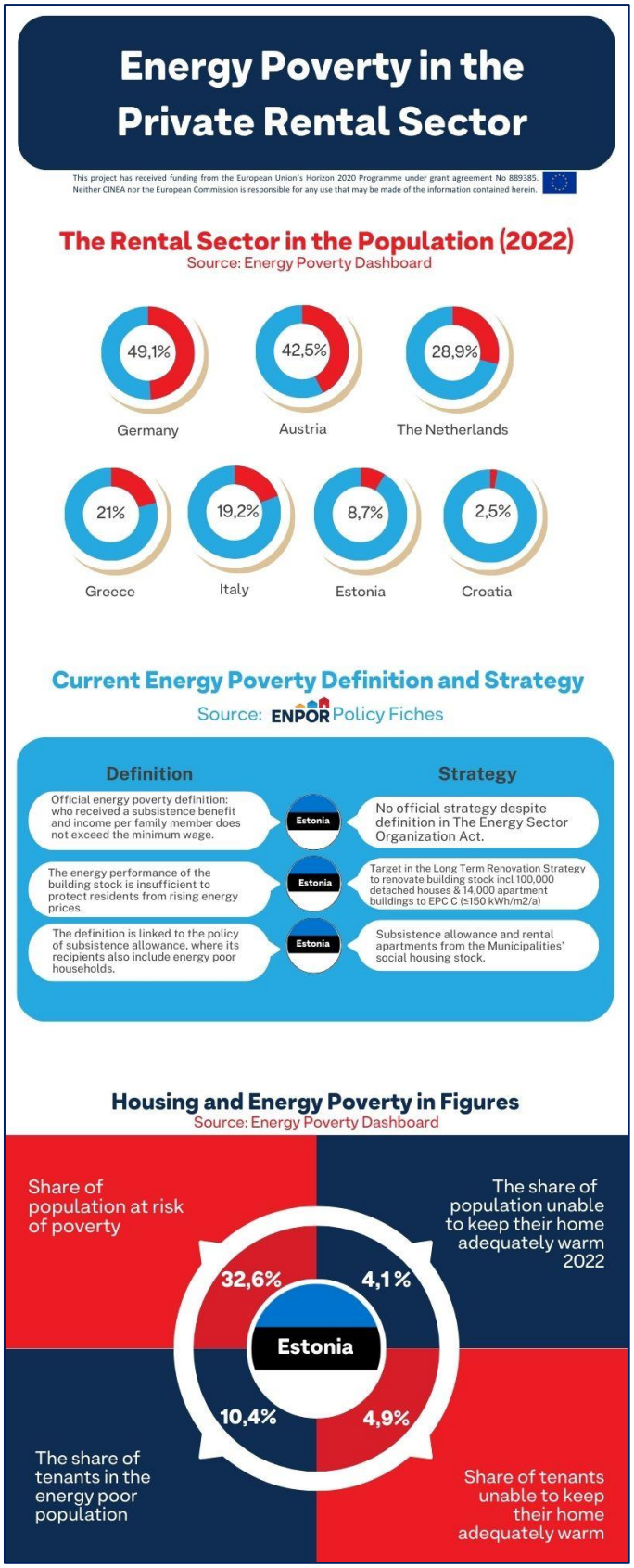

Key Facts: Austria



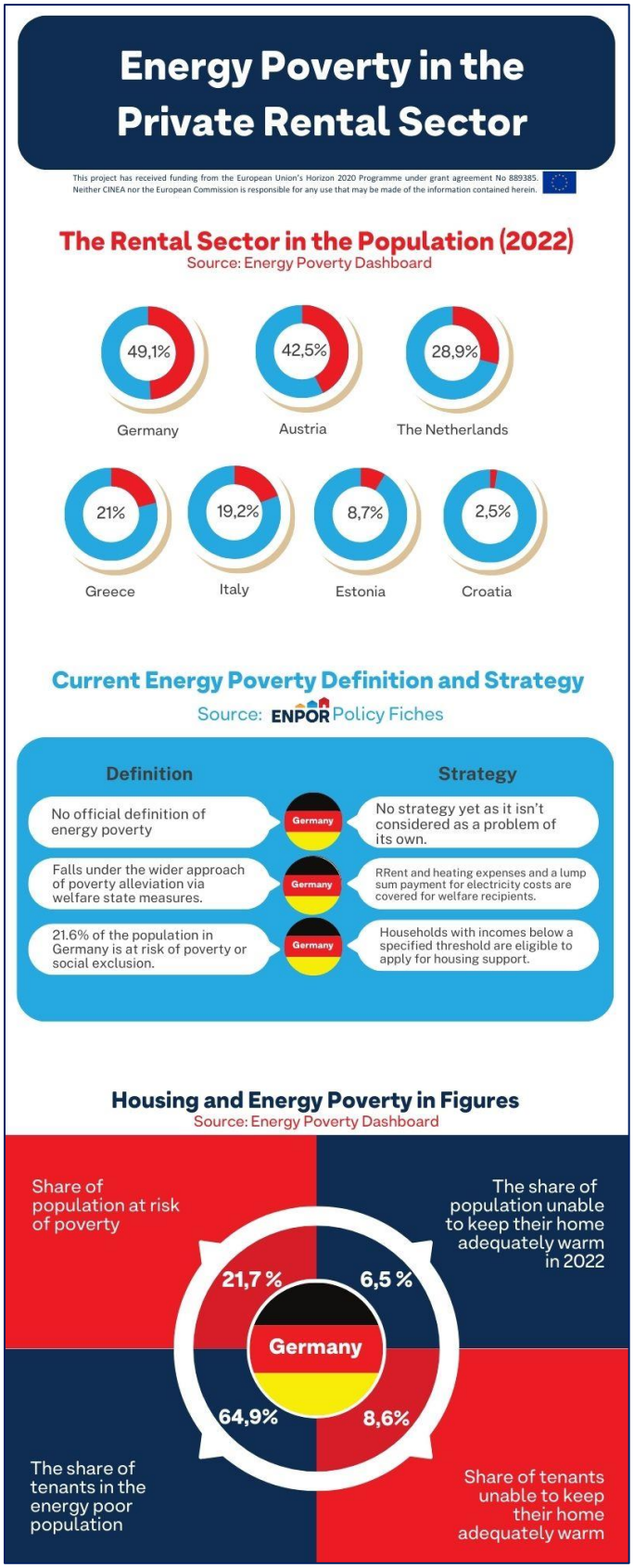
Key Facts: Croatia



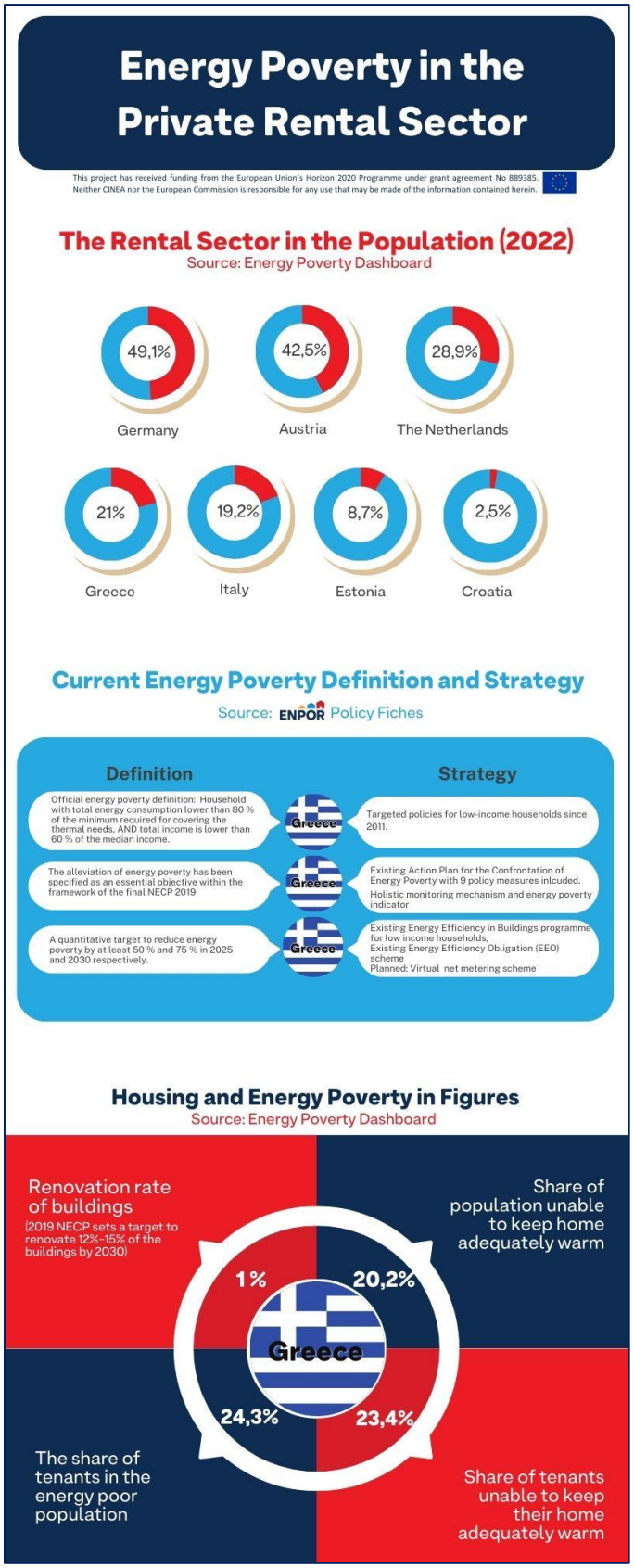
Key Facts: Estonia



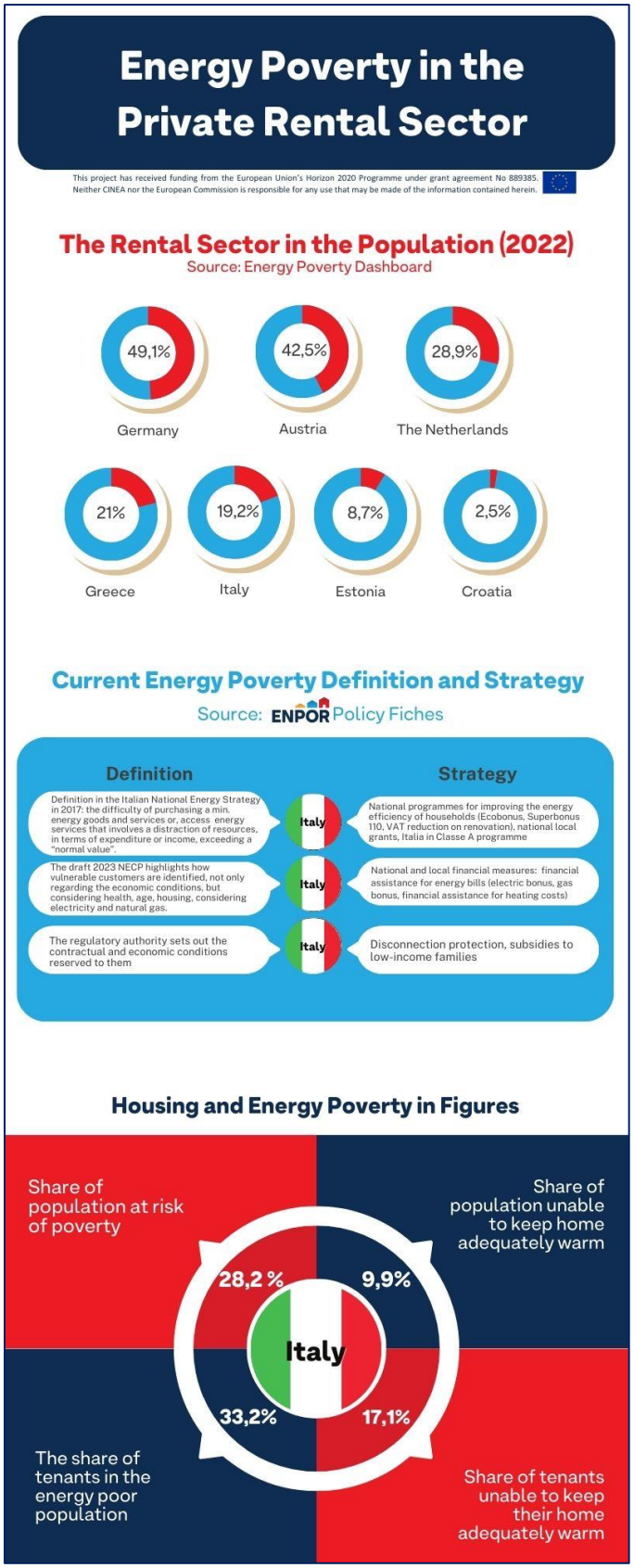
Key Facts: Germany



Key Facts: Greece



Key Facts: Italy



Key Facts: Netherlands