



Factsheet n°3

Energy Poverty and Energy Efficiency in Rural Areas: Regional results



Co-funded by the European Union under project ID 101077033. Views and opinions expressed are however those of the author(s) only and do not necessarily reflect those of the European Union or CINEA. Neither the European Union nor the granting authority can be held responsible for them.

Introduction

To deepen the understanding on rural energy poverty and energy efficiency, [RENOVERTY](#) conducted an online survey of relevant stakeholders across Europe deriving key insights on existing needs, barriers, and proposed solutions for energy poverty and energy efficiency in vulnerable rural and peri-urban areas across Europe.

During this process, 130 stakeholders/experts from the fields of academia, policymaking, private and social sectors, etc., focused on European Union (EU) rural areas responded to the survey.

Furthermore, considering that the phenomenon of energy poverty is particularly pronounced in rural areas in Central and Eastern Europe (CEE), Southern Eastern Europe (SEE) and Southern Europe (SE) countries, our survey has a particular focus on exploring views and needs from stakeholders coming from these contexts. The survey results distinguished among the three regions under study will be analysed in the following subchapters.

Rural energy poverty drivers

The respondents were asked to rate eight different drivers of energy poverty on a Likert-scale of 1-5 (1: “not important at all” – 5: “very important”).

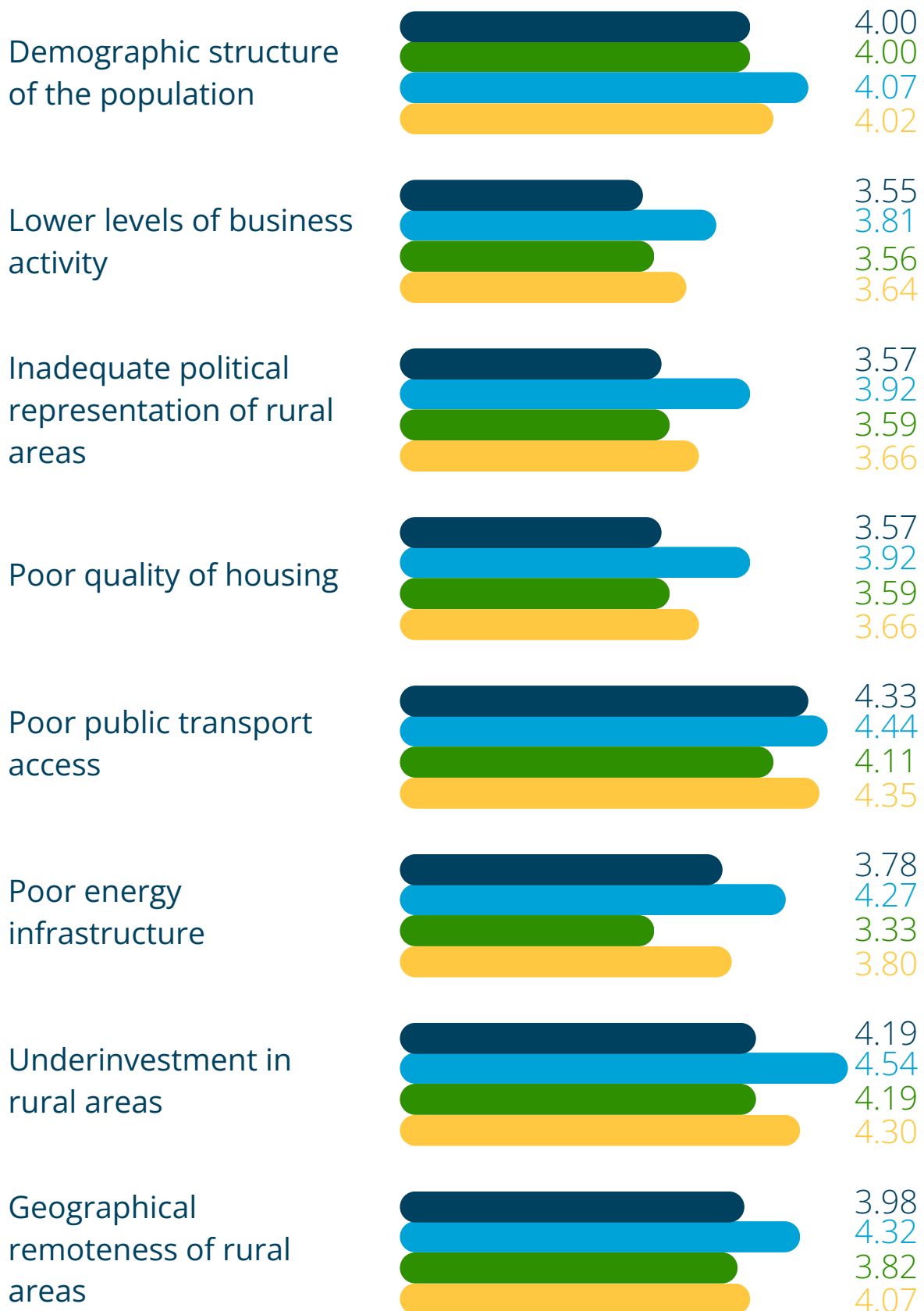
Across the board, **poor public transport access**, **underinvestment in rural areas**, **demographic structure**, and **poor housing quality**, were identified as the most prominent drivers.

Zooming into the three regions, we identify the following specificities:

In CEE, the **poor quality of housing** was deemed to be the **main driver** of energy poverty followed by **underinvestment** in rural areas, differentiating this region from the responses at the EU level.

In SEE, **underinvestment** in rural areas is recognised as the **main driver** of energy vulnerability, followed by **poor public transport access** and **geographical remoteness**, while in SE, poor public transport access and underinvestment in rural areas are seen as the most prominent drivers of energy poverty.

Rural energy poverty drivers per region



● SE ● SEE ● CEE ● EU

Utilisation of renewable/electrification technologies in rural areas

The respondents were asked to answer how **likely** they saw the utilisation of four different types of **renewable energy/electrification technologies** in rural areas. The four investigated forms of renewable energy/electrification technologies were: **solar thermal, solar photovoltaic, domestic heat pumps** and **electric vehicles** and the likeness to using each technology was ranked from “not likely at all” to “very likely”.

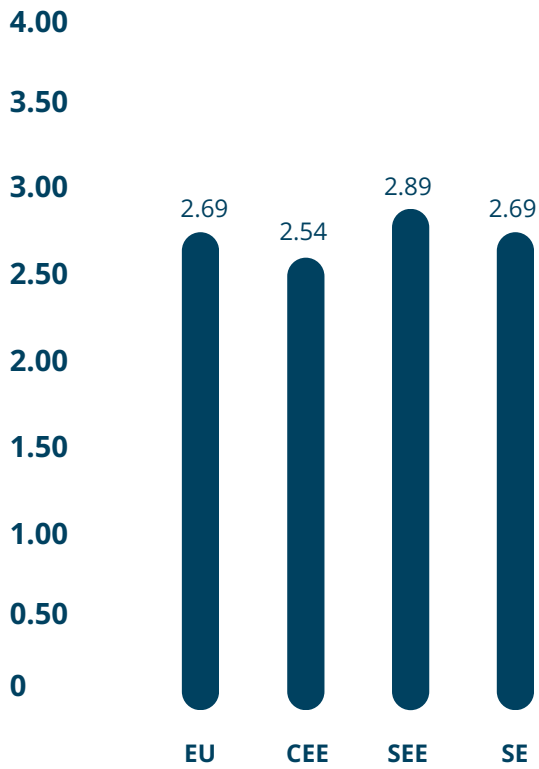
Electric vehicles were seen as being either “unlikely” or “not likely at all” to be employed in rural areas except for the CEE region, where they were regarded as more likely to be utilised.

Domestic heat pumps were found to be the second most unlikely form of technology to be employed in all regions, with little deviation among the different regions.

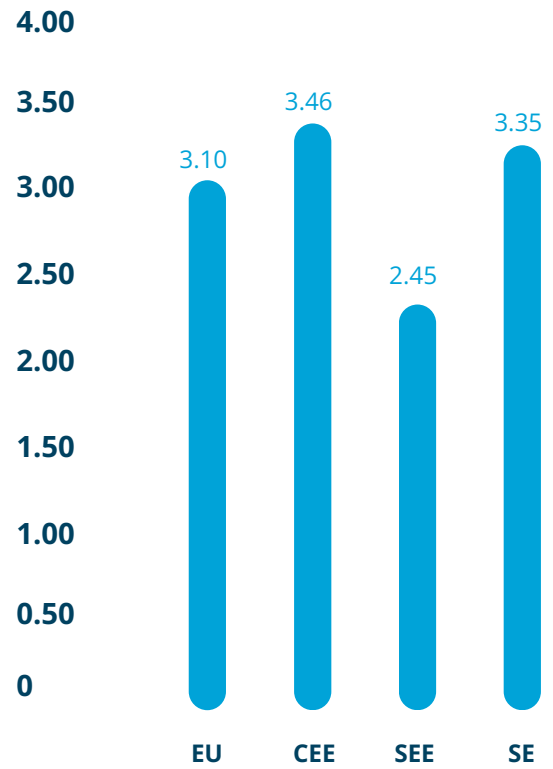
Solar thermal technology was identified as the second most “likely”, and “very likely” to be employed at the EU level, with a notably higher likelihood in the SEE areas compared to CEE.

Solar photovoltaic technology emerges as the **predominant choice** for rural areas, particularly prevalent in **CEE regions**. Although less common in SEE areas, solar photovoltaics is still a well-established and recognised technology across all regions.

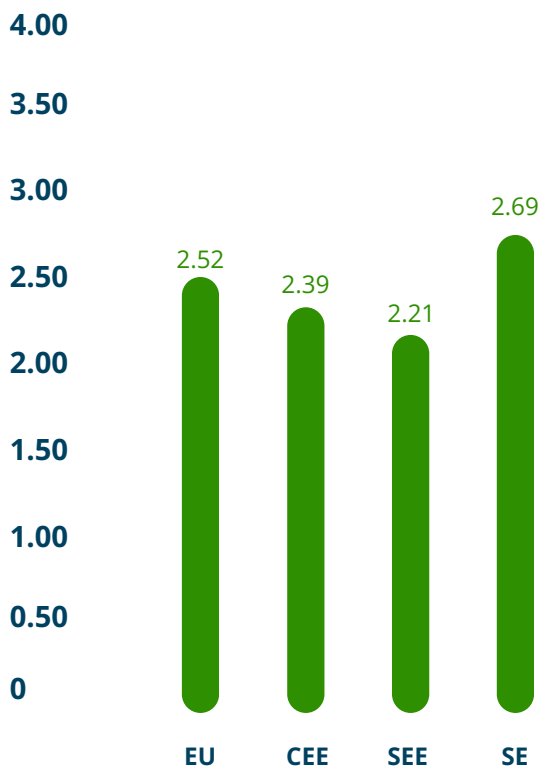
Utilisation of renewable/electrification technologies in rural areas



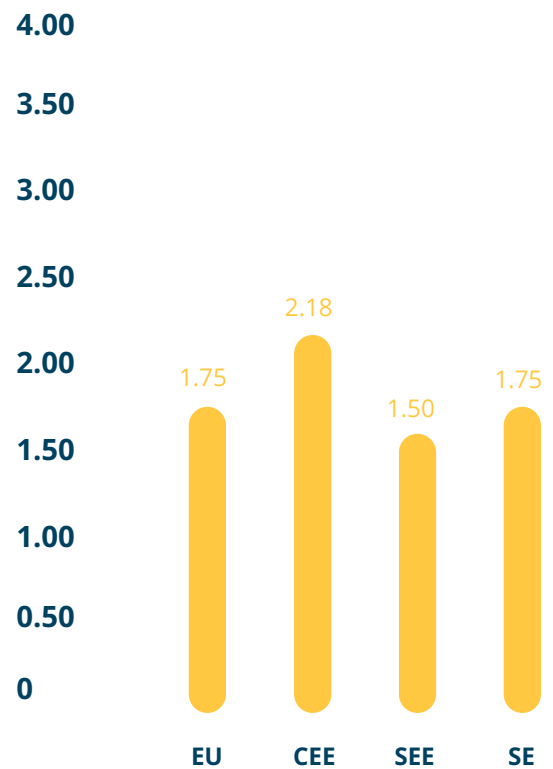
Solar Thermal



Solar Photovoltaic



Domestic Heat Pump



Electric Vehicles

Barriers to the implementation of energy efficiency measures to address energy poverty in rural areas

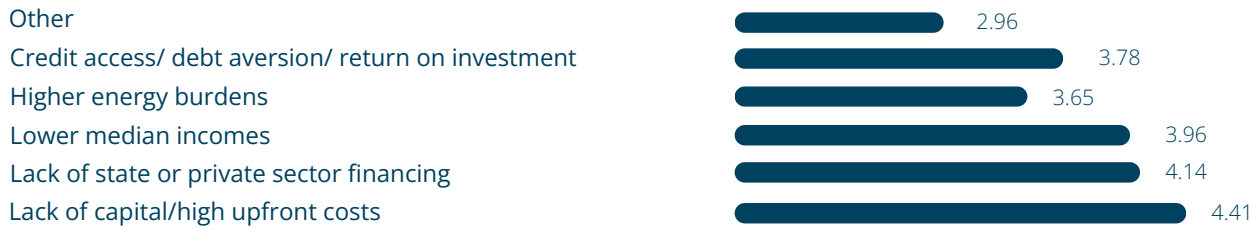
Our analysis identified that barriers to the implementation of energy efficiency measures in rural areas span **financial**, **awareness/access**, **regulatory**, and **geographical domains**.

Following this, respondents were asked what categories of barriers they have encountered while dealing with energy efficiency improvements in rural areas of their region. In all regions, **financial barriers** were rated as the most important category of barriers, followed by awareness/access, regulatory, and geographical barriers.

To investigate further the specifics of each barrier category, respondents offered their insights into the importance of **specific barriers** in each category.

- **Financial barriers:** In all regions, the lack of capital and high upfront costs were pronounced as the most important financial barriers. Furthermore, we also identify that all regions follow a quite similar trend to what concerns the rest of the barriers identified as more important, i.e., **lack of state or private sector financing** and **lower median incomes**. An exception to this are SE regions, where the lack of state or private sector financing is followed by **credit access/debt aversion/return on investment** and **higher energy burdens**.

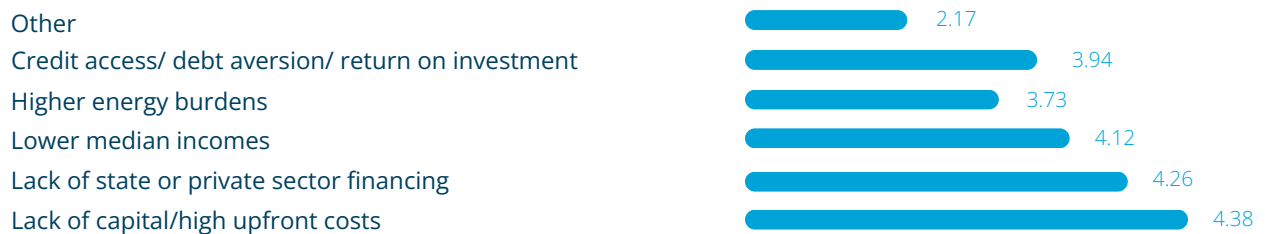
Importance of Financial Barriers



EU



CEE



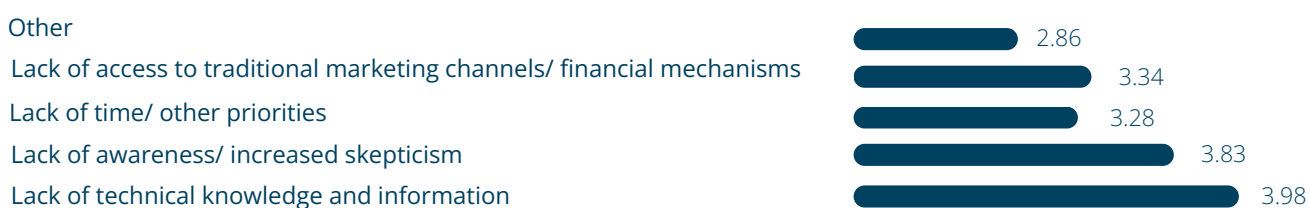
SEE



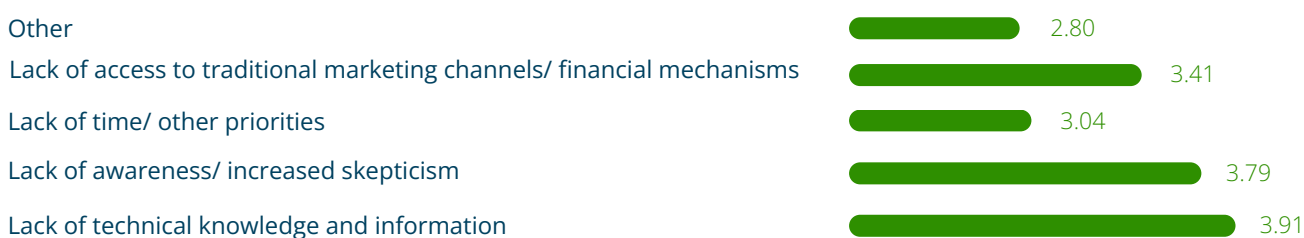
SE

- **Awareness/access barriers: lack of technical information** and the **skepticism of rural households**. Both barriers are recognised as the most important across all regions. In SE areas, the **lack of time** is considered the third most important barrier, while in CEE and SEE areas **lack of access to marketing channels** and **financial mechanisms** is ranked in third place.

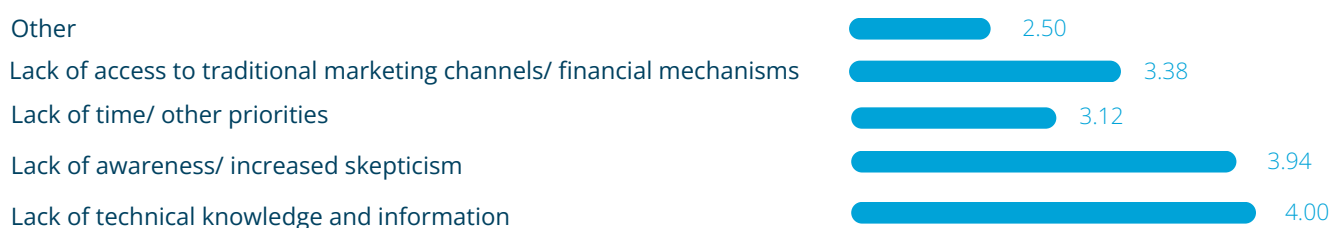
Importance of Awareness/Access Barriers



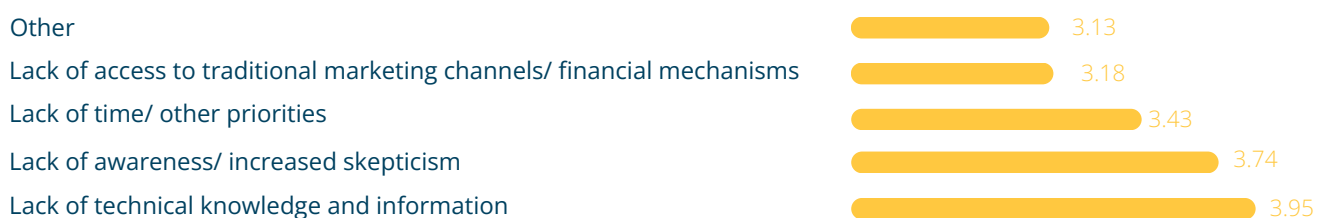
EU



CEE



SEE



SE

- **Regulatory barriers:** In all regions, except for SEE, the existing **unsupportive and inconsistent policy setting** is considered as the most important regulatory barrier. In SEE areas, the **lack of a regional/local focus on national policies**, along with **inadequate laws and policies**, are regarded as the most prominent barriers concerning the regulatory aspect.

Importance of Regulatory Barriers



EU



CEE



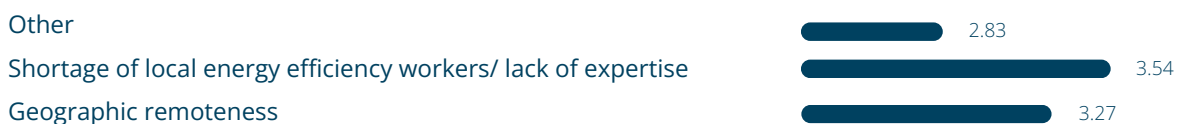
SEE



SE

- **Geographical barriers:** In all regions, the **shortage of local energy efficiency workers** and the **lack of expertise** are given higher importance, followed by **geographic remoteness**, with small differences among regions in term of its importance.

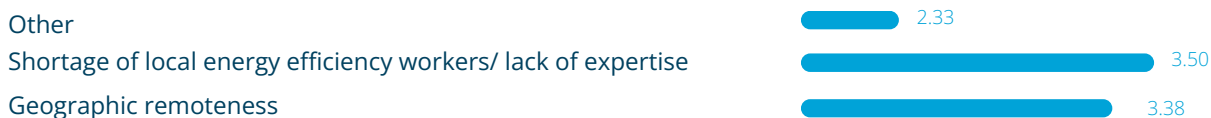
Importance of Geographical Barriers



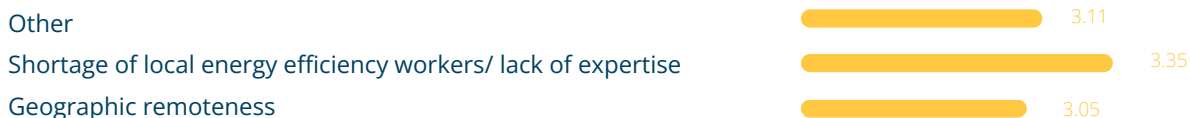
EU



CEE



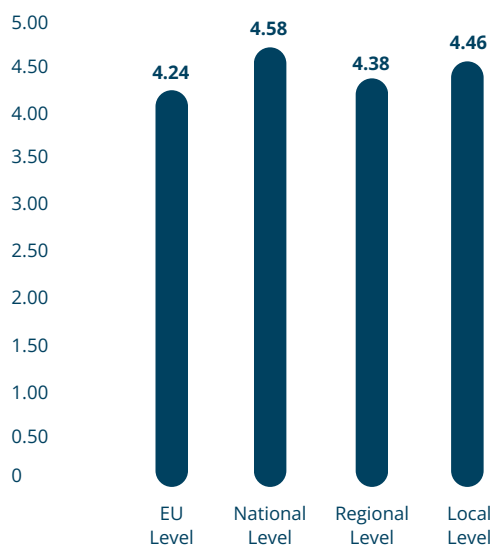
SEE



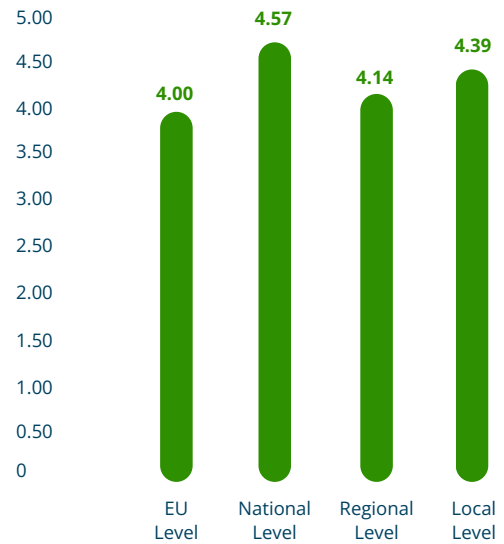
SE

Importance of policy levels for energy poverty in rural areas

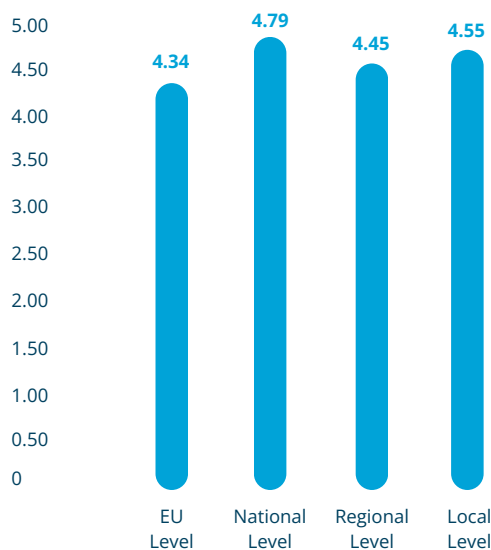
Respondents were also asked to rate the importance of the **different policy levels** in terms of enhancing the uptake of energy efficiency measures for the alleviation of energy poverty in rural contexts. In most regions, **national level policies** are considered to be the most impactful. Nonetheless, it must be noted that **regional level policies were found to be the most impactful in the case of SE areas.**



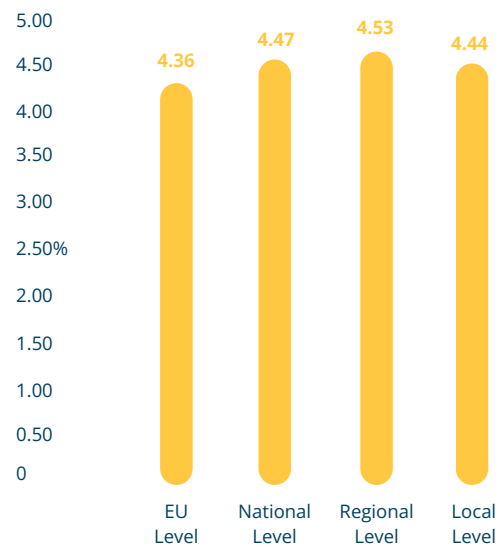
EU



CEE



SEE



SE

ABOUT RENOVERTY

RENOVERTY fosters energy efficiency building upgrades in the energy poor households of Central and Eastern Europe (CEE) / South-eastern Europe (SEE) and Southern European countries (SE) by establishing the methodological and practical framework to build renovation roadmaps for vulnerable rural districts in a financially viable and socially just manner.

RENOVERTY ensures that building retrofits consider the social dimension by incorporating security, comfort, and improved accessibility in the roadmaps to further improve the quality of life of vulnerable populations. Over the project's three years, seven pilots located in Sveta Nedelja (Croatia), Tartu (Estonia), Bükk-Mak & Somló-Marcalmamente-Bakonyalja Leader (Hungary), Zasavje (Slovenia), Parma (Italy), Coimbra (Portugal), and Osona (Spain) will implement the roadmaps, while wider integration of rural and peri-urban development is foreseen in the long run.

[Access the full report here](#)

Our website: <https://ieecp.org/projects/renoverty/>

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