

# Energy prices and energy poverty in Eastern Europe

Report from the Metropolitan Research Institute, Habitat for Humanity International and Habitat for Humanity Hungary and FEANTSA's site visit and expert meeting, in Budapest, 6-7th July 2022.

## Introduction

In December 2019, the European Commission unveiled its European Green Deal plan for Europe, a new overarching guiding strategy for the European Union, aiming to make the EU climate neutral by 2050. A core element of the Green Deal is to achieve a massive improvement in the energy efficiency of buildings, reflected in current EU policy through the overall Renovation Wave strategy and the specific revision of the Energy Performance of Buildings Directive (EPBD).

In the context of Russia's invasion of Ukraine and the skyrocketing energy prices, the urgency for energy independence and improving the energy efficiency of buildings in Europe is greater than ever before and there is a clear need for updated EU legislation and initiatives. But without adequate social safeguards, vulnerable groups and households could be adversely affected by the new proposed updates, pushing them even further into energy poverty.

Some of the most vulnerable regions in Europe in terms of energy poverty can be found in Central and Eastern Europe. However, the social impact of increasing energy prices and of the increasing energy efficiency standards in the region needs to be further assessed.

In light of this, the Metropolitan Research Institute, Habitat for Humanity International and Habitat for Humanity Hungary and FEANTSA came together and organised a study visit and an expert exchange meeting on the 6th and 7th of July 2022 in Budapest. The aim was to better understand the state of play of current energy poverty issues in Central and Eastern Europe, and what possible adverse effects new EU initiatives and energy price increases could have on the situation. The event gathered researchers, policymakers, representatives from organisations and local authorities as well as practitioners working within the field of energy efficiency renovation and energy poverty from over 8 different member states.

## Site visits in Budapest

On 06/07/2022, the participants of the event participated in study visits on the theme of energy poverty in Budapest.

The first stop of the site visit was the EU-funded (Horizon 2020) RenoPont, a one-stop-shop service for residents planning energy renovation. The one-stop-shop provides interested residents with the technical, legal and financial consultancy they need for energy-efficient renovation, in one place, for free. Its aim is to support home renovators from the decision-making process, through design and complete construction, to operation. There is also an online platform for RenoPont that can be found here: [www.Renopont.hu](http://www.Renopont.hu). The structure faces some challenges to address energy-poor households. First, it does not provide targeted funding for low-income households. Second, officials report difficulty in getting users to agree on renovations in multi-apartment buildings. They also lament the difficulty of reaching people. To address this challenge, the municipality launched an online communication campaign. Maximising the potential of one-stop-shops such as Renopont is crucial to accelerate the deep renovation of the EU building stock, which in turn can increase our energy security and alleviate people out of energy poverty.

The site visit continued with a tour of a social housing building renovated by the 8th district of Budapest. The multi-apartment building is owned by the municipality and was completely renovated with public funds. Lajos Zsidi explained that there were no rent increases following the renovation. Tenants used to receive a special income for living in social housing in a building non-renovated for more than 20 years, which they lost with the renovations. However, the amount was negligible and its disappearance had no impact considerable on tenants, according to Lajos Zsidi. Although the municipality would like to provide district heating, the heating system in this building is an individual gas heating system.

The third stop was a presentation and discussion at the Family and Child Welfare Service Debt Management and Housing Group of the 8<sup>th</sup> district of Budapest. The representative explained that energy poverty is a great challenge in the district as 10% of the inhabitants live in extreme poverty and 33% have no savings. The population has also been particularly affected by the covid crisis due to jobs mainly located in sectors directly affected by the crisis (jobs in the cleaning, catering and construction sectors). The building stock is also old. In the district, 80% of the buildings were built before the Second World War and there are many listed buildings. The site was created as a result of the government's decision in 2002 that cities with more than 10,000 inhabitants should have debt management services.

Then, the group met a housing manager from the district. He is responsible for 50 buildings, mainly multi-apartment buildings. He explained that the main problem he encountered was finances and the fact that owners don't have a long-term plan for renovations. He explained that this was linked with the historical context, and people becoming suddenly homeowners at the fall of the Soviet regime, without having the money to finance renovations. Although energy renovation needs are identified in the buildings (roofs, electrical and water systems and insulation), the owners who can afford renovations often prioritise the appearance of their house over energy efficiency renovations, explains the manager. In addition, the lack of private savings among homeowners is an obstacle to the incentive to undertake energy renovation. According to the manager, it gets two to three years to get the community ready for deep retrofits.

The last step of the study visit was an intervention by **Fanni Tóth and Gergely Schum** on social housing and energy projects at the district level. They pointed out that municipal flats are old and sometimes unlivable, often with no access to basic comforts like toilets. This leads to the fact that 20% of the housing buildings owned by the 8th district are empty. They highlighted the particular aspect of energy poverty in Hungary, mainly in rural areas, where low-income people heat their homes with whatever they can find (rubbish, furniture, wood, etc.), affecting air quality, especially in winter.

## Expert meeting 7th of July

On the 7th of July 2022, an expert meeting was held to exchange views on energy prices and energy poverty in the Central and Eastern European region. **Alice Bergoënd**, Policy Officer at FEANTSA opened the first session of the expert meeting by stating that in the context where 50 million people experiencing energy poverty in Europe, the increased energy efficiency aimed by the renovation wave was a great opportunity for energy-poor households, but that without strong social safeguards this might come at a social price and negatively affect vulnerable households. In particular, the situation is to be better assessed for Central and Eastern European member states, which are regions where the building stock is older, and where the population are more likely to be disproportionately affected by energy poverty.

## European Perspectives

**Silvia Rezessy**, policy officer at DG ENER, European Commission, gave a comprehensive presentation on the Fit for 55-package and EU initiatives related to energy poverty. She highlighted the proposal for a recast of the Energy Efficiency Directive, which includes an EU-wide definition of Energy Poverty and the review of the EPBD, which includes renovation of worst-performing buildings in the application of minimum energy performance standards (MEPS) to address the root causes of energy poverty. She also brought up the importance of the Energy Poverty Advisory Hub, which is aimed at providing technical assistance to municipalities and other local actors in designing concrete programmes to address energy poverty. Lastly, she advertised relevant financial resources available at the EU level which target a just transition in the built environment, such as;

- The Recovery and Resilience Facility with an estimated 76 billion EUR dedicated to building renovation including social housing.
- The Cohesion policy, which has historically represented the main source of EU public funding for direct investment in improving buildings' energy efficiency.
- The Social Climate Fund where the commission proposes 72.2 billion EUR in the period 2025-2032. The fund can be used to finance structural solutions to address root causes of energy poverty, such as building renovation, and decarbonisation of heating and cooling meant to support vulnerable households.
- The Just Transition Mechanism, including the Just Transition Fund, which provides targeted support to alleviate the socio-economic impact of the green transition in the most affected regions.
- The Affordable Housing Initiative, part of the Commission's renovation wave strategy for Europe, which aims to green buildings, create jobs and improve lives.
- The LIFE-Clean Energy Transition sub-programme, which holistically addresses barriers to renovation, helps reduce energy poverty and improves building-related interventions in vulnerable areas Project development assistance.
- Horizon Europe with a total of 14 topics addressing the highly energy efficient and climate neutral EU building stock in the Work Programme 2021-2022, including 8 topics addressing research and innovation activities for the wider sustainability of the built environment implemented under the European Built4People.

**Hanna Szemző** from the Metropolitan Research Institute presented their collaboration with FEANTSA on energy poverty. Together the organisations are trying to assess possible social consequences of increasing energy prices and energy efficiency standards of the former Socialist EU members, including Balkans, Baltic states and CEE. The specific areas assessed so far are renovations, increasing MEPS, and what happens with unfit housing, including both single-family homes and multi-unit buildings. Hanna gave an overview of the specific circumstances related to energy poverty in the post-socialist areas of the EU:

- More renovations take place than in the EU on average, but they tend to be less deep.
- CEE member states rely more on fossil fuels than other member states.
- The post-socialist regions are characterized by lower wages and weaker welfare states than their Western-European counterparts, while the need for affordable housing and more comfortable/healthier homes is higher.

**Ludmilla Perunska** from Habitat for Humanity International also gave some context to the region's characteristic owner-occupied multi-family apartment buildings (MAB) and gave an overview of their key challenges and opportunities in relation to energy poverty and renovations. Prefabricated multi-apartment buildings built between 1960 and 1990 represent 30-70% of the total housing stock in the region. The quick mass privatization in the 1990s after the fall of the Soviet led to 80-90% owner occupation rates, without an adequate framework for building maintenance and management. This happened parallel to the deconstruction of the social safety net, and without subsidies, utility and energy costs of the flats soared, burdening the family budgets and the socialist-era collective maintenance mechanisms were abandoned. The “new” homeowners still lack the resources to maintain their own apartments and their common building facilities. They are also often not aware of their owner’s rights and responsibilities. Some of the key challenges in the area are the weak or non-existent legislation for Housing Owners Associations (HOA), lack of sense of ownership, low income and high rate of energy poverty.

Ludmilla presented two projects that Habitat for Humanity International have been working on related to energy poverty in the region: [The Residential Energy Efficiency for Low Income Households](#) project, where homeowners living in formerly state-owned buildings are supported to work together to improve their homes and the EU-funded [ComAct](#), which aims to make impactful energy-efficient improvements in multi-family apartment buildings in the Central and Eastern European (CEE) region and in the former Soviet Union republics (CIS region) affordable and manageable for energy-poor communities as well as to create the necessary assistance conditions for lifting them out of energy poverty.

**Veronika Kiss**, also from Habitat for Humanity International, presented some policy recommendations based on the knowledge gained from the two projects:

- Recognize the owner-occupied MABs as a special form of social housing in Central and Eastern Europe
- Combine energy policy and social policy
- Identify the issue of alleviating energy poverty as one of the focus areas in shaping national building renovation goals
- Support renovations by mixed financing models (subsidies + loans) to make this predictable and sustainable long term
- Create an enabling regulatory environment for banks to be able to scale up renovation loans for HOAs

- Strengthen the capacity of local governments so that they can provide complex technical assistance, including One Stop Shops to ensure scaling up renovation of these buildings in a sustainable way
- National and local governments should carry out awareness-raising campaigns targeting HOA in order to promote energy efficiency measures in the owner-occupied MAB.

Some of Habitats' selected key regional outcomes:

- [BBC video](#) on renovating MABs in North Macedonia under REELIH:.
- ComAct [research papers and toolkits](#)
- [Gap analysis](#) of the housing sector in Western Balkan countries
- Influencing EU policy-making on the EPBD
- Establishing the REE Observatory for CEE- in progress

## The social impact of energy prices increases

This session analyses the specific impacts of energy price increases on vulnerable households in the CEE region.

**Ezter Turai** from the Metropolitan Research Institute presented the COMACT project. First, she explained that different types of data on energy poverty are available in different countries, making it difficult to use the same indicators. The demographic highlights of the study are that those affected by energy poverty are predominantly older, with few children and low incomes. There is a predominance of district heating use. The study identified two dimensions of energy poverty: comfort and affordability, which corresponds to the inability to cool and warm, and energy cost exceeding 15% of the income. Ezter Turai recalled that it was more important to discuss how energy poverty works and who experiences it, rather than developing rates. There are numerous faces of energy poverty, and the definition depends on the strategies used by households. People experiencing fuel poverty are mainly low-income households. The vulnerable household types are the elderly, as they have lower income, and are more likely to live alone and in bigger dwellings; and the unemployed. It showed as well that having one or two children does not increase vulnerability. Regarding energy poverty, surprisingly enough, the position of the dwelling does not matter. Using electric heating and stove correlate to the highest energy poverty rate. The study showed that the education level is less important than expected, as it has no impact on the level of energy poverty, except in Ukraine.

**Habitat for Humanity Hungary presented the EUKI project results on energy poverty & solid fuels.**

**Nora Feldmar** from Habitat for Humanity Hungary presented the results of the EUKI project on energy poverty in Hungary. The study shows that Hungary has a low-efficiency housing stock. Two-thirds of the dwellings are single units and one-third are multi-unit dwellings. Gas use corresponds to 50-60% of the consumption and solid fuel use corresponds to 30-40%. Social housing corresponds to less than 3% of the housing stock and 10% of the population is estimated to experience energy poverty.

The study identified the existing targeted policies facing the challenge of energy poverty in Hungary. These are: social subsidies for vulnerable consumers, social heating fuel subsidy settlements under 5000 inhabitants, a solar panel programme, “catching up” municipalities – 300 poorest settlements (RRF), and an energy efficiency obligation scheme. Non-targeted policies are also identified, such as a cap on the prices of gas, electricity, and district heating fixed at 75% of 2012 levels. In a recent announcement, the government stated that this cap should stay on for now.

In Hungary, there is no national definition of energy poverty. Different indicators define energy poverty. The NECP indicator defines energy-poor households based on their heating difficulties: it corresponds to the households which spend over 25% of their income on energy expenses. The EEOS indicator defines energy-poor households as vulnerable households whose annual energy costs of heating the dwelling to 20 C and producing hot water exceed 25% of their yearly income.

In Hungary, energy poverty is a shared responsibility between the ministry of technology and industry and the ministry of internal affairs. Solid fuel heaters are more affected by the current energy crisis because the prices have not been fixed. Nora Feldmar presented an interactive tool Habitat for Humanity used for data exploration and analysis and explained that there is a lack of basic access to indicators and a need for national indicators.

**Anna Zsofia Bajomi** from Habitat for Humanity Hungary and **Jakub Sokolowski** from the Institute for Structural Research presented the results of the MEMO model, showing the impacts of a carbon tax on the energy costs of households. The MEMO model estimates a carbon tax to reduce emissions by 40% until 2032 compared to 2022. It determines the impact of carbon pricing on energy poverty in Hungary. The aim of this study is to show the best policy options available for decision-makers at the local and national levels to prevent and alleviate energy poverty. It consists of macro and micro simulations based on quantitative modelling. This model evaluates the impacts of the carbon tax on the GDP, employment and value added by sectors. The model shows that Hungary will require a carbon tax of approx. 70 \$/tonne of CO<sub>2</sub> to reach a 40% emissions reduction, due to the high emission intensity of the economy. The impact of the carbon tax on employment is low, and the impacts on GDP are initially negative. After 2032 the climate policy will contribute to economic growth. The carbon tax will help to reduce the dependence of the Hungarian economy on imports of fossil fuels – mostly gas – by 35% until 2032.

The micro model leverages data from Household Budget Surveys (HBSs) to evaluate the reaction of households to the introduction of a carbon tax. This allows us to determine behavioural changes in response to an increase in prices and exhibits the average expenditures of households' categories on different types of goods and services. This accounts for the fact that different consumers react differently to the same tax. After a carbon tax, low-income households will face a high burden of electricity costs, double that of the most affluent households. After the implementation of the tax, the share of expenditure on transport fuels rises, while it decreases for public transport. Regarding welfare gains of compensation policies, the least affluent household is the only ones compensated for the welfare losses. These compensations are inversely redistributed revenues proportional to the income level of the household.

Overall, the carbon tax is followed by reduced consumption levels. The study warns that it should be avoided that low-income households reduce even more their energy consumption and reduce their mobility due to the implementation of the tax. Compensation for welfare losses for vulnerable households is also needed. To reduce negative externalities, the revenues from the energy tax can be used to increase energy efficiency among the poorest households. The tax on transport fuel can be used for developing transport uses. While this model raises the question of who is considered low-income households and who is considered high-income households, the researchers take the OECD definition of the bottom and the top quarters.

## Panel discussion: What policies to mitigate the social impact?

The final session consisted of an engaging panel discussion on what policies are needed to mitigate the social impact.

**Vlasis Oikonomou** from the Institute for European Energy and Climate Policy (IEECP), presented the results from their recent study on “The impacts of policies to decarbonise residential buildings on energy poverty in Central, Eastern and Southern Europe and mitigation strategies”. The study, commissioned by the European Climate Foundation, analyses the impacts of EU measures to reduce greenhouse gas emissions from buildings can have on energy poverty in 10 Central, Eastern and Southern EU countries. Their research focuses on 3 main policies: Minimum Energy Performance Standards (MEPS), Emission Trading System and phasing out of fossil fuel boilers. The study finds that if well designed, the Renovation Wave can cut low-income households’ energy costs by a third, alleviate people out of energy poverty and at the same time reduce energy waste from badly insulated homes. However, the revenues from the proposed Social Climate Fund and national revenues from an emissions trading system for buildings (ETS2) are not sufficient to meet the investment needed if Europe’s vulnerable households are to be supported in the energy transition, the study shows. Find a summary of IEEPC’s study [here](#).

Some of IEECP’s recommendations:

- The first principle is key to structural solutions to the problem
- The price signals are not enough, they must be combined with financed MEPS.
- Shift bill support towards facing our fossil boilers
- Earmark max funding rate for low-income households
- Revision of the funding streams

Vlasis also emphasised that it is time for member states to invest in energy efficiency for lower-income households:

“We need to push member states to invest in low-income groups now and not wait for the future, it will just become even more expensive. So far most of the policies implemented in member states are at the level of supporting the increased energy bills. But we know that this is not a structural solution, investments need to be made now.”

**Jakub Sokołowski** from the Institute for Structural Research provided a research perspective on measures needed to mitigate the social impact of the increasing energy prices and energy efficiency standards. Jakub argued that in the way things are going now, the green transition is only made for the rich and the vulnerable households will be the ones paying for the energy transition. He was critical of market-based solutions to the energy crisis and argued that we need to rethink our climate policies: “Without tackling inequalities, there will be no reaching of the climate goals.” He also emphasised the urgency of the crisis: “We cannot only look at 2030 and 2040 goals. We have to consider the next heating season perspective.”

He called for a complete embargo on Russian oil and gas, to strengthen the role of the state with more investments in social housing and for a stronger focus on vulnerable groups and tackling inequalities to mitigate the social impact of the crisis.

Jakup also gave a pessimistic outlook on the situation in Poland, where he argued that the politicians are mainly thinking about getting reelected rather than making smart climate policies and using EU funds for social issues.

**Gábor Erőss**, deputy mayor of district 8 in Budapest, gave an overview of the municipality's work on renovation and energy poverty. He agreed with Jakub that energy poverty is a major part of social inequalities which in turn affect a lot of other social rights. In his district, a lot of lower-income families are affected by energy poverty and do not have the capacity to invest in energy efficiency renovations. He also agreed that more subsidies are mainly targeting the rich and middle class and is not really a solution for energy poverty.

He called for municipalities to have more direct access to EU funding, referring to the unwillingness of the Hungarian government to cooperate with opposition-led municipalities:

“One-third of our district lives in social housing. We have the willingness in the municipality to renovate the energy-poor households and reduce the consumption of energy, especially from Russia. But we won't be able to do so without EU funds.”

In the meantime, the district works with their One Stop Shop where they can give advice to residents on how to renovate their houses themselves. Something that again raises the problem of inequality, as mainly the middle class stands to profit from this, he reasoned. Due to a lack of resources, the district is also dependent on volunteers to go around to social housing units in the area and gather data on households' energy systems, habits, interests etc.

**Silvia Rezessy** (DG ENER) regretted the lack of faith in the European Commission expressed by the previous speakers. Nevertheless, she responded by stating that the financing is in place today and that there already is a focus on low-income groups. However, she underlined that it is dependent on financial engineering and that the member states are responsible for how to make use of the funds. Building renovation and energy efficiency measures rely a lot on national, regional, and local levels, she argued. She wanted to highlight the importance of One-Stop-Shops and that asking people to do small changes in their households can have systemic effects.

## Conclusion and key takeaways

It is essential to understand the specific context of the post-socialist regions in Europe related to housing, renovation and energy poverty such as the owner-occupied multiapartment buildings, lack of sense of ownership, lack of legislation for Housing Owners Associations the high dependency on fossil fuel, lack of private savings for renovations, the political and geographical proximity to Russia, lower wages and weaker welfare states in order to mitigate the social impacts that the energy transition can have in the region. At the moment there are different types of data on energy poverty available in different countries and no mutual definition of energy poverty, making it difficult to use the same indicators and measure and compare energy poverty in the region.

From the perspective of the European Commission, there is already a lot of EU financing and initiatives available or on the way at the EU level which target a just transition in the built



environment. However, stakeholders in the region call for better accessibility to the EU funds, more targeted funding for lower-income households and a higher amount in order to make the energy transition a socially just one, that “leaves no one behind”.

There was a clear sense of urgency for tackling energy poverty and for energy independence in the region among the participants. Policymakers need to focus on how the more vulnerable households will make it through the next winter, and not only look at climate goals for 2030 etc.

However, the policies needed to mitigate the social impact of the energy transition and rising energy prices must also be structural, focusing on tackling the root causes of inequalities and long-term investments targeting the most vulnerable households. With the proper social safeguards, the energy transition has the potential to be socially just:

“Through establishing a combination of building regulations and pricing mechanisms, and through providing the right type and scale of support, the EU can include low-income households in the energy transition, empowering them to deploy effective and structural solutions that will improve their quality of life and help them move away from dependence on imported fossil fuels while contributing to reducing GHG emissions from their homes”.

- IEECP study, [Policies to decarbonise residential buildings in Central, Eastern and Southern EU: impact on energy poverty and mitigation strategies](#)