

## BRIEFING

# Connecting energy poor communities



To re-watch the seminar



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## Energy communities and cooperatives in Croatia – Addressing energy poverty by Maja Bratko

This section presents an overview of Croatia's innovative approach towards energy poverty, focusing on the development of energy communities and cooperatives. The insights, shared by DOOR, offer a detailed look into the evolution, challenges, and successes of these initiatives.

### The emergence of energy cooperatives

#### Historical context (2012)

The foundation of Croatia's journey in energy sharing among citizens was laid with the establishment of the first energy cooperative in 2012. As such, these cooperatives were formed under the existing Act on Cooperatives, providing a legal basis for their inception.

#### Early challenges and public perception

Initial reluctance towards joining cooperatives stemmed from negative associations with past communist regimes. However, this sentiment gradually changed as the cooperatives started gaining credibility.

### Milestones in energy cooperative development

**Photovoltaic projects in Krejci:** noteworthy achievements include the implementation of photovoltaic power plants in Krejci, financed through crowdfunding. These initiatives not only demonstrated public interest in sustainable energy projects but also highlighted the potential of community-based funding.

### The advent of energy communities (2021)

#### Legislative support

Two critical acts, the Electricity Market Act and the Renewable Energy Sources and High-Efficiency Cogeneration Act, were introduced in 2021. These legislations facilitated the transition from passive consumers to active prosumers, formally recognizing energy communities.

#### Operational challenges

Despite legal backing, the establishment of energy communities faced several obstacles, such as protracted bylaw development and complex registration requirements. These issues particularly impacted smaller, locally-focused communities.

### Dynamics of energy distribution

#### Infrastructure and monopoly constraints

The monopolistic structure of Croatia's energy distribution system and infrastructural limitations posed significant hurdles in achieving effective energy sharing among community members.

### Energy communities and energy poverty alleviation

A French model was cited as an exemplary case where micro-donations from energy bills are allocated to local initiatives tackling energy poverty. While Croatia hasn't yet replicated this model, it presents a viable pathway for addressing energy poverty.

#### Local Progress and Potential

Despite the challenges, there's a growing recognition of energy communities as a viable solution to energy poverty in Croatia, though actual implementation and best practices are still evolving.



## Final remark from Vjeran Pirsic– Energy efficiency and investment considerations

### Personal journey

He described the transformation of a house from an energy rating of D to A, necessitating substantial investment in insulation, windows, and other innovations, amounting to about 50,000 euros.

According to him, different technologies bear varying costs; for example, installing photovoltaics requires roughly 10,000 euros, which escalates to 15,000 with batteries. However, installing a heat pump emerges as a more cost-effective and impactful solution.

### Strategy for optimization

importance of finding optimal energy solutions. Integrating a heat pump into the existing heating system significantly cut down on heating oil consumption, leading to immediate financial benefits. A system equipped with energy-saving modes and smart technology was discussed, incorporating an advanced heat pump and battery storage.

### Guidance for energy transition

Recommended is an approach that begins with basic energy efficiency measures and then gradually incorporates advanced technologies like photovoltaic, aligning with financial capabilities. But also acknowledged is the importance of skilled workers' availability for installations and maintenance, which can influence the timing and effectiveness of energy upgrades.

## Financial models and investment Strategies

**Loan and subsidy options:** some loan facilities offering up to 40,000 euros for energy transitions at low-interest rates, demonstrating the financial avenues available for such projects.

In order to achieve this, a comprehensive strategy is advocated that encompasses technological solutions and viable business models, aiming to make energy transitions affordable with minimal initial investments.

In conclusion, practical, real-world solutions are emphasized over theoretical models. A 'quick and dirty' approach, such as starting with heat pumps and gradually adding more complex systems, is suggested during the final discussion...





## Addressing energy poverty through financial schemes for building renovation and evolution of energy cooperatives in Greece by Alice Corovessi

In Greece, according to ELSTAT data, in 2020:

- ▶▶ 17.1% of households (39.1% of poor households) face financial inability to cover adequate heating
- ▶▶ 28.2% (50.1% of poor households) report difficulty in paying fixed bills on time, such as electricity, water, gas, etc.
- ▶▶ 12.5% (20.3% of poor households) live in dwellings with leaking roofs; damp walls, floors, foundations; or rotten windows  
Under the “I am Saving 2023” renovation support programme, 300 million euros will be allocated for energy efficiency upgrades. In total, Greece plans to upgrade 600,000 residential buildings during the period 2021–2030.

### Energy communities in Greece:

- ▶▶ March 2018: First law for energy communities in Greece
- ▶▶ March 2023: New institutional framework for energy communities in Greece, not energy communities but citizens energy communities and renewable energy communities

In October 2023, 1,677 energy communities were active, showing a 18.6% increase compared to the previous year and 9 established communities under the new institutional framework. The overall electrified capacity of commercial and self-producing community projects exceeded the 1GW milestone (34% more compared to the previous year). More participation in energy communities for self-produced energy is claimed by citizens with an increase in the corresponding project connection requests of 292.5% compared to the previous year across the country.

In September 2023, the first call for self-production projects for energy communities in transition regions was activated from the **Just Development Transition Programme 2021–2027**. The programme amounts to 41.7 million euros, with 26.8 million destined for energy communities in lignite areas. However, this fund excludes already developed energy communities by citizens, as it is focused primarily on municipalities.

**Long term impact is required, thus investing in energy efficiency projects. In fact, the EU requires energy poverty to be identified and addressed in each country’s National Energy and Climate Plans (NECPs) to be updated in 2024 and to submit the Social Climate Funds to the Commission by June 2025.**

## ENPOR partners



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