



SOCIALNRG



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D4.1 Report on models for the development of REC to tackle energy poverty

Wednesday, 15 October 2025 (Revised : 23 September 2026)

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The SOCIALNRG project has received funding from the European Union's LIFE programme under grant agreement No 101167579.



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Executive summary

As the energy transition accelerates amid growing geopolitical and climate challenges, energy communities are emerging as key drivers of a just, clean, and democratic energy system. However, while citizen-led renewable energy communities (RECs) are gaining attention, there is still limited knowledge about their social impact—particularly their ability to include and support vulnerable households facing energy poverty.

This report highlights existing and emerging models of community-led initiatives that address energy poverty and promote social justice, both within a social housing context and beyond. By showcasing these initiatives, the report aims to provide a foundation for replicable, impactful approaches that can be scaled across Europe. The findings and lessons learned from over 50 initiatives included in this report, serve as a resource for policymakers, stakeholders, and community energy organisations, offering valuable insights to drive action and advocate for policies that enhance the role of community energy in tackling energy poverty.



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1 Introduction

1.1 About SOCIALNRG

Energy poverty remains a critical issue across Europe, with many existing solutions offering only short-term financial relief rather than long-lasting change and security against a highly volatile energy market. The SOCIALNRG project addresses this challenge by piloting adaptable, community-driven models in social housing communities in Slovenia, Italy, and Belgium. Through a co-creation approach, vulnerable households actively imagine, shape and manage their own energy future, ultimately establishing their own energy community. By focusing on peer exchange, governance integration, and trust-building, SOCIALNRG aims to create lasting energy communities for 460 families, delivering solutions that not only lower energy costs, but also empower residents, foster community resilience and strengthen social ties.

By directly involving vulnerable households, SOCIALNRG adapts the community energy model to the complexities and particular realities of working with households living in social, cooperative, or public housing. The project accounts for challenges such as integration in local governance structures, irregular work and family schedules, and initial scepticism toward new initiatives that have the potential to disrupt well established day-to-day norms with regard to managing their household. By ensuring that vulnerable households play an active role, SOCIALNRG aims to demonstrate that climate action and social equity can go hand in hand, offering a scalable model for a just energy transition. At a time when social and environmental policies risk being sidelined for competitiveness, SOCIALNRG stands as a blueprint for an inclusive and democratic energy future.

1.2 About this report

With the energy transition reaching a critical point in an increasingly tense climate and geopolitical context, there is a growing interest in real-life examples of energy communities and collective, citizen-led approaches leading the way towards a just, clean and democratic energy system. This report seeks to highlight existing and emerging methodologies of community-led energy poverty alleviation and social justice projects mapped through an Open Call organised by SOCIALNRG in February and March 2025. By showcasing these initiatives the report aims to inspire others and provide a basis for creating blueprints for impactful collaborative approaches that can be replicated across Europe. We hope it will help policymakers, stakeholders, and energy communities better understand the sector, drive action, and advocate for supportive policies to help energy communities become effective tools to tackle energy poverty.



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Chapter 2 provides insights into the mapping methodology and a short quantitative overview of the respondents to the Open Call questionnaires and interviews.

Chapter 3 presents the main findings of the mapping, structured around the key building blocks of an energy community business model canvas. Drawing on the practices shared by respondents, it provides an overview of how energy communities across Europe adapt core building blocks to strengthen inclusivity and/or tackle energy poverty.

Chapter 4 dives deeper into the stories and experiences from respondents to the Open Call. The case studies are ordered in alphabetical order and highlight their key successes and challenges.

1.3 Key concepts

✦ Energy communities

Energy communities are the only form of collective governance of the energy system, enabling the active participation of citizens, formalised by the EU. Incorporating stringent non-commercial, governance and control requirements they are unique players in the energy market. They can operate across the energy sector and can take up activities such as collective self-consumption, energy sharing, heating and cooling, citizen-led renovation services, e-mobility and so on. Driven by social, ecological and economic value over profit, energy communities generate a wide array of benefits, not only for their members but also for the wider community: they mobilise private capital, while keeping individual investments affordable; they provide access to clean and affordable energy; foster social acceptance of the energy transition; empower households through education, awareness raising and democratic decision-making; and generate energy savings. Such benefits, when accessible to those most vulnerable, can alleviate the burden of energy poverty and create more resilient communities.

✦ Energy poverty and vulnerability

The revised Energy Efficiency Directive (EU/2023/1791) for the first time establishes a Union wide definition for energy poverty. According to this definition a household experiences energy poverty when it can't afford or access essential energy services for a decent and healthy life – like heating or cooling the home, having hot water, keeping the lights on or running essential appliances. It recognises that energy poverty is a complex issue, linked to a combination of factors such as low income, high energy costs and poor housing conditions. This means that the exact conditions can vary depending on the local context and each country's social and energy policies.¹

¹ Directive (EU) 2023/1791, Article 2 (52)



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The Energy Poverty Advisory Hub (EPAH) further explains that energy poverty results from a mix of contextual factors — such as climate, housing type, and geopolitical influences on energy prices — and personal factors, like age, household composition, or health conditions. This also means that households and individual citizens are vulnerable to energy poverty in different ways. EPAH identified five, non-exhaustive factors which may increase someone's vulnerability to energy poverty: sociodemographic factors (e.g. low educational level, social aid beneficiary, ethnic minority), household composition, health, the degree of energy literacy and cultural factors.² As many households move in and out of different circumstances over time, it can make them more or less exposed to energy-related hardship, making energy poverty a dynamic and evolving issue.

Because its causes are so varied, the impacts of energy poverty are equally wide-ranging. These can include worsening health problems, developmental issues among children, reduced social and emotional well-being, and even an increase in premature deaths.³

Inclusivity

Inclusion means creating an environment where all people are valued, respected, and able to participate fully, without discrimination based on gender, sexual orientation, social class, political beliefs, race, ethnicity, nationality, religion, age, or disability. It involves actively welcoming and using diverse knowledge, perspectives, experiences, and ideas. Inclusion also requires cultivating the structures, systems, processes, culture, behaviours, and mindsets that support and embrace people in all their diversity, ensuring that everyone can contribute meaningfully and equitably.⁴

Inclusion is crucial for a just energy transition. It ensures that everyone can participate, while promoting equal access to clean and affordable energy as a basic human right. Research shows that including diverse perspectives—across gender, sexual identity, ethnicity, and other backgrounds—improves decision-making and outcomes.⁵ However, many voices remain unheard, particularly those of low-income households, women, and socially discriminated communities, who are disproportionately affected by energy poverty. Systemic discrimination reinforces vulnerabilities, undermining gender, ethnic, and social equality, as well as health, education, and social cohesion. Current energy crises highlight these inequities, emphasising the need for inclusion to ensure a fair and effective energy transition.⁶

² [Energy Poverty Advisory Hub \(2022\). Introduction to the Energy Poverty Advisory Hub \(EPAH\) Handbooks: A Guide to Understanding and Addressing Energy Poverty.](#)

³ [Energy Poverty Advisory Hub \(2022\). Introduction to the Energy Poverty Advisory Hub \(EPAH\) Handbooks: A Guide to Understanding and Addressing Energy Poverty.](#)

⁴ [Kepinski L. and Nielsen T.C. – Definitions Matter – Just Don't Talk About Them. Diversity, Equity, Belonging and Inclusion.](#)

⁵ [Cloverpop – Hacking Diversity With Inclusive Decision-Making.](#)

⁶ [SCCALE 203050 \(January 2024\) – Inclusivity Guide](#)



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✎ Inclusivity in energy communities

In the context of energy communities, inclusivity refers to the ongoing effort to ensure that all people can meaningfully participate in, influence, and benefit from citizen-led energy initiatives. It goes beyond simply opening membership or access — inclusivity involves actively identifying and addressing barriers (financial, technical, social, or institutional) that may prevent individuals or groups from engaging with or benefiting from community energy activities. It also means recognising different forms of knowledge, capacity, and experience as valuable contributions to shaping community priorities and practices. Inclusivity in energy communities is therefore a process of continual reflection and adaptation, aimed at creating fairer and more representative forms of participation. It acknowledges that participation and benefit are not evenly distributed and that building inclusive energy communities requires attention to power relations, trust, and local context. Ultimately, inclusivity ensures that the transition to sustainable energy is socially just and collectively owned.



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2 Mapping existing and emerging practices

Energy communities are a unique, EU-recognised form of collective energy governance that allows citizens to actively participate in the energy system. Driven by social, ecological and economic value over profit, energy communities generate a wide array of benefits, not only for their members but also for the wider community: they mobilise private capital, while keeping individual investments affordable; they provide access to clean and affordable energy; foster social acceptance of the energy transition; empower households through education, awareness raising and democratic decision-making; and generate energy savings (it is found that joining a renewable energy cooperative can lead to more than 20% reduction in electricity consumption (Coenen & Hoppe, 2022)). Such benefits, when accessible to those most vulnerable, can alleviate the burden of energy poverty and create more resilient communities.

2.1 Mapping methodology

This report maps out innovative projects identified through an open call questionnaire distributed among members of REScoop.eu, Housing Europe, and other relevant organisations in January and February 2025. Most information was gathered through direct engagement with energy communities and their key partners, capturing a variety of perspectives on how energy communities address energy poverty, their business models, and the challenges they face.

2.1.1 Outreach campaign

A targeted outreach campaign was carried out through the networks of SOCIALNRG project partners, particularly leveraging REScoop.eu's extensive network of energy communities. The campaign aimed to engage both established and emerging energy communities actively working on energy poverty, as well as their key partners, such as municipalities, housing providers, NGOs, and so on. The strategy included:

- ✦ **Targeted outreach** to initiatives and stakeholders already known to be working on energy poverty through community energy.
- ✦ **Snowball sampling:** to amplify reach and ensure diverse participation, known initiatives were asked to share the open call with their key partners and broader networks.
- ✦ **Broad Social Media Publicity:** General promotion of the open call across relevant platforms to increase visibility.



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2.1.2 Data Collection

Primary data was gathered through a mix of written questionnaire responses and semi-structured interviews with energy communities and their partners. Although participants were initially encouraged to complete the survey themselves, we also offered to assist them through conversational interviews. These interviews were mainly conducted online and transcribed for analysis. To complement the insights gained from interviews and written submissions, we also reviewed relevant online sources such as project websites, leaflets, guides, and webinars, both to deepen our understanding of participating initiatives and a number of additional ones.

The collected data is primarily qualitative and anecdotal, highlighting the potential of energy communities across Europe to address energy poverty. Although more comprehensive quantitative data on the social impact of energy communities is needed, such information is not yet systematically collected across different initiatives or at the EU level. This complicates any attempt at identifying general trends or impacts. Collecting this type of data was beyond the scope of this mapping effort.

2.1.3 Data Analysis

The open call gathered insights into how energy communities address energy poverty and promote social justice, focusing on their actions, target beneficiaries, and engagement approaches. It also examined the legal and regulatory environments they operate in, their governance structures (particularly the involvement of vulnerable households in decision-making), key partnerships, funding mechanisms, impacts, and future plans.

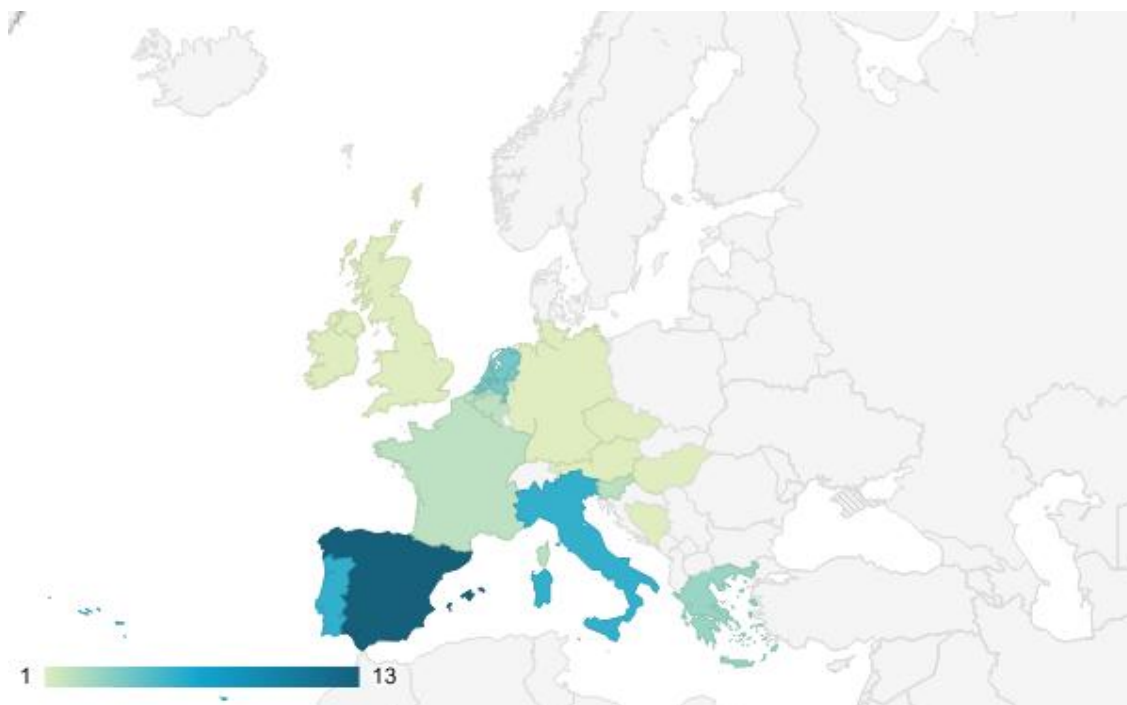
The collected data was analysed through thematic analysis to identify common themes, practices, and challenges faced by energy communities in tackling energy poverty.

2.1.4 Short quantitative overview

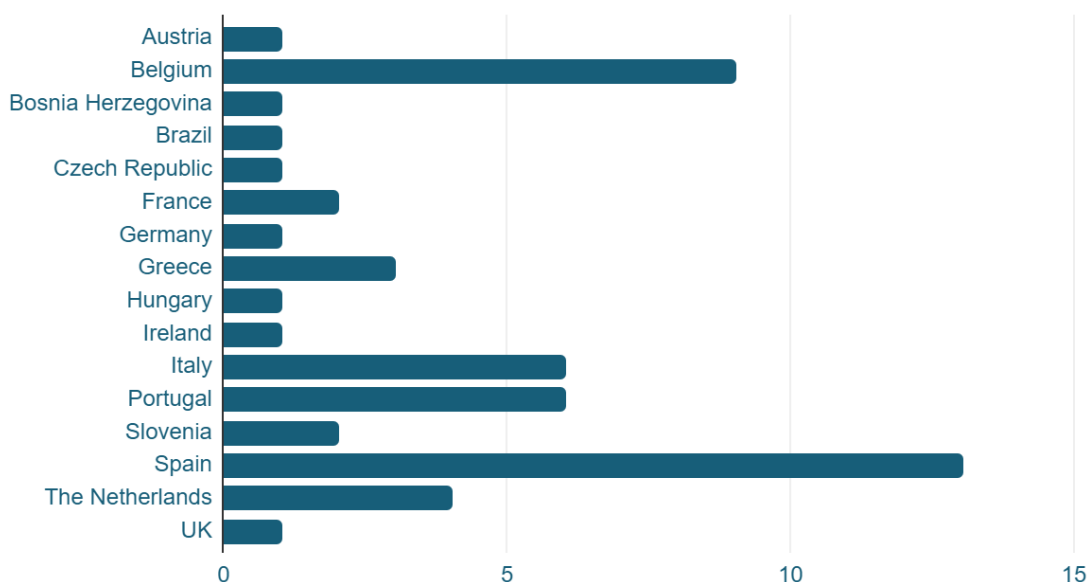
In total, 57 responses were submitted to the Open Call: 33 through written contributions and through 24 interviews. 48 were assessed as relevant for inclusion in the analysis. With 13 respondents, Spain is the highest represented country. Eastern Europe and Scandinavia, on the other hand, remain under/non represented in the data collection. Although we engaged with several organisations from Eastern Europe, they flagged that the topic of energy poverty remains underexplored as the community energy movement itself is generally in its early development stages. Attempts to combat energy poverty, given the challenges and resources involved, are considered to be too complex at this stage, although being definitely on the radar.



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Covered countries



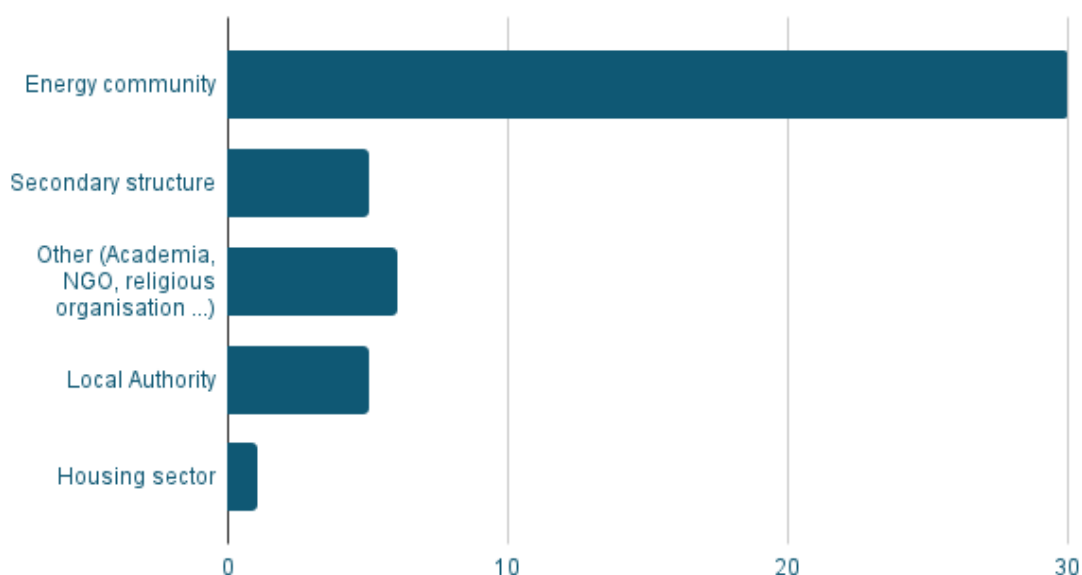
Although the Open Call sought to capture diverse perspectives from various stakeholders involved in energy community projects addressing energy poverty, the majority of responses came from energy communities themselves. The SOCIALNRG project also aimed to engage social housing providers; however, only one cooperative participated. Insights from the housing sector were nonetheless captured through responses from local



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authorities, energy communities and secondary structures (ex. network organisations spanning several sectors).

Engaged Stakeholders



2.1.5 Overview of Open Call respondents included in the report

Organisation name	Country	Entity
Agro Do Amial	Portugal	Energy Community
Argiola	Spain	Energy Community
BBeN	Germany	Secondary structure
Brupower	Belgium	Energy Community
Caritas Ambrosiana	Italy	Religious organisation
Caritas Incontro	Italy	Religious organisation
CENSE, NOVA FCT	Portugal	Academia
Mirafiori REC	Italy	Energy Community
City of Liège	Belgium	Local Authority
City of Mostar	Bosnia and Herzegovina	Local Authority
Collective Energy (COEN)	Greece	Energy Community
Comune di Silvi	Italy	Local Authority



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Comunidad Energética Getafe Potencia	Spain	Energy Community
Comunitat Energetica de la Bordeta	Spain	Energy Community
Cooperativa Castello	Italy	Housing provider
Coopérnico	Portugal	Energy Community
ECLAIRS	France	Energy Community
Ecopower	Belgium	Energy Community
EcoVision	Ireland	Energy Community
Enercoop	France	Energy Community
Energent	Belgium	Energy Community
Energetska Zadruga Zeleni Hrastnik	Slovenia	Energy Community
Energía Bonita	Spain	Energy Community
Energie Samen	The Netherlands	Secondary Structure
EWS Schönaau	Germany	Energy Community
FOCUS	Slovenia	NGO
Getafe Local Land and Housing Public Agency	Spain	Local Authority
Goiener	Spain	Energy Community
Hyperion	Greece	Energy Community
Innovacoop	Italy	Cooperative network
Lightbringers Foundation	Hungary	Energy Community
Llobregat Energètica	Spain	Energy Community
Lumiar Civil Parish	Portugal	Local Authority
Minoan Energy Community	Greece	Energy Community
Oliver CE	Spain	Energy Community
OurPower	Austria	Energy Community
Repowering London	UK	Secondary structure
REScoop Vlaanderen	Belgium	Secondary structure
REScoop Wallonie	Belgium	Secondary structure
Sociedad Cooperativa Eléctrica La Corriente	Spain	Energy Community



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Som Energia	Spain	Energy Community
Stockelsun	Belgium	Energy Community
Telheiras/Lumiar REC	Portugal	Energy Community
UKEN	Czech Republic	Secondary structure
Wattnu	The Netherlands	Energy Community
WET – Women for Energy Transition	Spain	NGO
WOW Wageningen	The Netherlands	Energy Community
ZuidtrAnt	Belgium	Energy Community

2.1.6 Additional cases included in the report

Organisation name	Country	Entity
AlIenergy	UK	Energy Community
Allons en Vent	Belgium	Energy Community
Brixton Energy Solar Projects	UK	Energy Community
Bürger-Energie-Genossenschaft Neuburg-Schrobenhausen-Aichach-Eichstätt eG (BEG)	Germany	Energy Community
Buxia Énergies	France	Energy Community
ECoOB	Belgium	Energy Community
Karditsa Energy Community (ESEK)	Greece	Energy Community
Klimaan	Belgium	Energy Community
Stanovanjsko Podjetje d.o.o.	Slovenia	Housing provider
Westmill Sustainable Energy Trust	UK	NGO
Woonland	Belgium	Housing provider
Sun Sud	Belgium	Collective Self-Consumption



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3 Business model canvas

Energy communities have traditionally focused on renewable energy generation, including collectively owned solar PV, wind, and hydropower projects. In recent years, however, their activities have increasingly expanded, with communities developing services such as energy poverty and home insulation advice, heating and cooling, flexibility, energy sharing, and renovation support. This diversification has also created new opportunities to engage households experiencing vulnerability and to address energy poverty through community-based models.

To structure the findings of this mapping, we use the **Business Model Canvas as a guiding framework** to identify the main dimensions that characterise an energy community's activities and underpin its business model. We first developed a common energy community business model canvas based on existing literature, research, and other relevant resources.⁷ We then complemented this framework with elements that are particularly relevant when energy communities seek to engage and support vulnerable households. These proposed adaptations are not an exhaustive list, but were derived directly from the evidence collected through the Open Call, interviews, and questionnaire responses. The resulting framework thus reflects the experiences and practices of energy communities that responded to the Open Call at a certain moment in time.

The business model canvas presented in the figure below provides a **high-level overview of these core building blocks and the key adaptations identified through the mapping**. The following sections then examine each dimension in greater depth, exploring how common business model approaches can be adapted to strengthen inclusivity and address energy poverty. For each element, relevant case studies are indicated in the third column. Readers are invited to find out more about a specific initiative's story and experience in chapter 4.

⁷ Including :

[Reis I.F.G et al. \(July 2021\) Business models for energy communities: A review of key issues and trends,](#)
[ETIP SNET \(August 2026\). The Evolution of Energy Communities: new business models for citizen-centric energy transition;](#)
[SHINE tools: Business model templates.](#)



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ENERGY COMMUNITY BUSINESS MODELS FOR TACKLING ENERGY POVERTY

Key partners • Community members • Technology manufacturers & construction companies • Technology/energy-management provider • Technical advisors • Banks/investors • DSO and other network operators • Energy supplier/retailer • Municipalities/local authorities • Municipalities and public entities • Social/cooperative/public housing providers • Frontline workers • Community leads • Secondary structures (energy community federations, coalitions,...) • NGOs and community groups • Religious associations	Key activities • Develop, operate, maintain renewable assets • Manage energy sharing/supply • Energy efficiency, retrofitting • Billing and administration • Engaging and mobilising the community • Securing funding • Monitoring outcomes • Regulatory compliance • Home visits and energy efficiency interventions • Education and awareness-raising • Coordination with stakeholders and partners • Targeted outreach • Partnership coordination • Staff and volunteer training	Value proposition • Access to locally produced RE • Lower/optimised energy costs • Local ownership of energy assets • Additional revenues/savings for members • Reduced CO2 emissions • Greater energy autonomy/resilience • Local economic value creation • Immediate financial relief & price shielding • Thermal comfort • Demand-reduction services • Residents gaining more control over their living environment (democratic decision-making) • Learning new skills • Strengthened social cohesion • Gaining control over the lived environment • Peace of mind	Customer Relationships • Membership/cooperative participation • Transparent governance • Regular community meetings • Member support/advice • Annual reporting on • Trust-building • Stigma-free engagement and co-creation • Inclusive governance • (Social) tenancy legal safeguards	Customer Segments (members) • Households/prosumers • SME's • Municipality/public buildings • Vulnerable groups (ex. low-income households, pensioners, single-parent families, young couples, immigrant households, emergency buyers) • Social/cooperative/public housing residents • Social/cooperative/public housing providers
	Key resources • RE assets • Grid connection • Community members and their demand/generation profiles • Capital/investment • Legal structure • Local partnerships • Regulatory framework • Community trust • Volunteers and community leads • Members' social networks and expertise • Access to data on energy poverty		Channels • Community meetings and local events • Website/app/member portal • Word-of-mouth • Municipality channels • Face-to-face, human-to-human communication • Workshops and trainings • Trusted intermediaries • Local newsletter, newspaper (non-digital) • Resident association • Familiar community anchor spaces	



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Cost structure

- Technical and economic feasibility studies
- planning and licensing costs
- Costs for installing, building and maintaining RE installation
- public grid usage costs
- Reinvestment costs to maintain, improve and increase existing infrastructure
- Procurement costs
- Outsourcing costs (ex. energy management/billing platform, accounting,...)
- Regulatory compliance costs
- Staff and volunteers: training, insurance and expenses coverage (ex. household visits)
- Subsidised, free energy provision and other services (ex. energy efficiency kits)
- Waived and absorbed membership fees or mandatory share entries
- Communication and training materials
- Covering late and non-payment
- Energy-savings hardware and material toolkits

Revenue stream(s)

- Sale of community members' shares
- Membership fees
- Sale of locally generated electricity
- Energy sharing revenues
- Sale of generation surplus
- Potential energy services (flexibility, storage, energy efficiency advice,...)
- Subsidies, grants or long-term contractual electricity payments from the municipal government
- Solidarity levies and Donations (micro-donations, donation-based crowdfunding, corporate...)



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3.1 Value proposition

We start with looking at the value proposition, as this is where it all comes together: why would someone in a vulnerable situation want to join an energy community? Why would it be a good idea for them? What kind of value can energy communities create for households who may experience different cross-cutting vulnerabilities? An energy community offers access to locally produced renewable energy, CO2 reductions, local ownership of energy assets and so on. For a project that actively seeks to broaden its social impact, the value proposition must directly address immediate household needs and comfort before anything else.

Adaptations for inclusivity and energy poverty alleviation		Examples
Immediate financial relief & price shielding	Generating immediate financial relief and price shielding by offering lower-than-market, stable, and cost-reflective energy tariffs and rent cap guarantees for tenants. Vulnerable households are highly exposed to retail energy price fluctuations, which can quickly trigger severe financial crises.	Agro do Amial (PT), Ecopower (BE), ECoOB (BE), Energetska Zadruga Zeleni Hrastnik (SI), Lightbringers Foundation (HU), Minoan (EL) Oliver CE (ES), Som Energia (ES)
Thermal comfort and demand-reduction services	Offering demand reduction services, retrofitting and heating and cooling solutions to deliver long-lasting comfort and financial relief rather than temporary aid. Low-income families, young people, people with disabilities, migrants, refugees, and single-parent households are disproportionately exposed to inadequate housing conditions forcing them to endure insufficient heating and/or cooling, and dampness because they cannot afford soaring thermal bills.	City of Liège (BE), Wattnu (NL), WOW Wageningen (NL), ZuidtrAnt (BE)
Strengthening social cohesion	Community-building and neighbour-to-neighbour solidarity by strengthening interpersonal ties and encouraging collaboration and democratic decision making, through transparent governance, working groups, neighbourhood events, home visits etc.	Caritas Incontro (IT), Oliver CE (ES)



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Learning new skills	Offering education and training to households to boost local energy literacy and build community confidence. Energy communities across Europe have supported households experiencing vulnerabilities gain new skills and confidence through targeted training, internships, hiring and offering hands-on experience, thereby tackling economic exclusion and building the personal and social foundations for long-term resilience.	Caritas Incontro (IT), Lightbringers Foundation (HU), Repowering London (UK)
Gaining control over the living environment	Empowering households by creating opportunities to become active, equal co-owners (and co-decision-makers) of their local energy transition.	Lightbringers Foundation (HU)
Peace of mind	Offering trust-based frameworks that offer financial safeguards, simplify administrative navigation (ex. via one-stop-shop facilitation), and embedding renewable energy and retrofitting projects within established local social-support infrastructure (ex. integrating renewable energy into existing rental or service-charge systems through collaborations with housing providers).	Ecopower (BE), Energent (BE),

Risks, challenges and barriers

✎ **Cost savings as a decisive factor:** While energy communities' value proposition goes beyond economic factors, these often remain a key driver for participation. And especially for households struggling with financial hardship, cost savings can be a decisive factor. **Stockelsun (BE)** and **Telheiras/Lumiar REC (PT)** highlighted the challenges energy communities face in attracting vulnerable households, as many already receive social energy tariffs that provide equal or greater on-bill savings with which energy communities can't compete or that make the economic benefits of participation marginal. Financial barriers, such as the inability to invest in PV systems or pay membership fees, further limit access and possibilities to actively participate and benefit from the energy transition. Additionally, low energy consumption reduces financial incentives, and the higher risk of payment delays adds to the economic uncertainty for energy communities.⁸ For Spanish cooperative supplier **Som Energia (ES)**, the ability to provide the social bonus would be a crucial step in attracting vulnerable households. While some of their clients are identified by social services as experiencing energy poverty, they risk losing their contracts if they cannot pay their bills and are subsequently transferred to a supplier

⁸ [Sun4All project \(September, 2024\). Sun4All Sustainable Implementation Plans for nine Community of Practice Observers.](#)



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of last resort. Since Som Energia is not recognised as a Provider of Last Resort, they are unable to offer regulated market tariffs, limiting their ability to support and engage households struggling with financial hardship.

3.2 Key partners

Working together with trusted local partners allows energy communities to better understand the specific needs of target groups and improve access to their services
– ZuidtrAnt (Open Call submission)

Energy communities are spaces where citizens and other stakeholders (municipalities, housing providers, social services, SMEs, etc) collaborate and engage with each other. The voluntary and open membership invites multiple actors to share their skills and experiences to enhance the social capital of the energy community. To ensure this space becomes inclusive and available to underrepresented groups and vulnerable stakeholders, a number of strategic partnerships are crucial to consider.

Adaptations for inclusivity and energy poverty alleviation		Examples
Municipalities and public entities	Municipalities provide essential legitimacy, administrative backing, and resource access to scale social impact initiatives effectively and sustainably. Leveraging local government outreach can help bridge the gap to vulnerable households. Across Europe, municipalities are partnering with energy communities to simultaneously advance climate, social, and democratic objectives. Ex. the City of Mostar in Bosnia and Herzegovina is launching an energy community to reduce costs and emissions for schools and vulnerable households, aiming to establish a replicable model for the entire country.	Agro Do Amial (PT), Comune di Silvie (IT), City of Liège (BE), Collective Energy (COEN) (EL), Comune di Silvi (IT), Ecopower (BE), ECoOB (BE), Enercoop (Fr), Getafe (ES),



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		Telheiras/Lumiar REC (PT)
Social/cooperative/public housing providers	With one-third of European citizens renting and social housing accounting for approximately 8% of the total housing stock ⁹ , the accessibility, affordability, and energy performance of these units are critical to preventing social exclusion and homelessness. Because much of this housing is outdated and poorly insulated, residents face disproportionate energy cost burdens, positioning housing providers at the forefront of initiatives to improve energy efficiency, renovate buildings, and increasingly engage in energy communities. ¹⁰ These collaborations offer opportunities to reduce costs, mobilise holistic solutions, strengthen community-building, and empower tenants through greater involvement in democratic decision-making.	Agro Do Amial (PT), Castello Green House (IT), CE La Bordeta (ES), Energent (BE), FOCUS (SI), Innovacoop (IT), Klimaan (BE), Repowering London (UK), Wattnu (NL), WOW Wageningen (NL)
Frontline workers	Frontline workers such as social workers, housing officers, healthcare providers and community organisers are known points of contact for vulnerable households, making them essential allies in identifying needs and building trust. Their close relationships with communities allow energy initiatives to reach those who might otherwise remain excluded, ensuring that support is both accessible and effective.	AlIenergy (UK), Enercoop (FR), Goiener (ES), UKEN (CZ), ZuidtrAnt (BE)
Community leads	Recruiting local residents or familiar faces in the neighbourhood as “Community Leads” to perform neighbour-to-neighbour outreach turns abstract energy projects into tangible support and lowers barriers of distrust and lack of information/awareness.	Repowering London (UK), SunSud (BE)
Secondary structures	Secondary structures, such as national energy community federations, are essential for providing the technical guidance, advocacy, and peer-to-peer support needed to launch successful projects.	Energie Samen (NL), Ènostra (IT), REScoop

⁹ Including different forms of housing support, with considerable cross-national differences in terms of tenure, size and type of providers. In this report by the OECD, Social Rental Housing refers to residential rental accommodation provided at sub-market prices and allocated according to specific rules rather than market mechanisms (Salvi del Pero et al. 2016). <https://www.oecd.org/content/dam/oecd/en/data/datasets/affordable-housing-database/ph4-2-social-rental-housing-stock.pdf>

¹⁰ [Housing Europe - The State of Housing in Europe 2023.](#)



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	They also bridge the gap between local initiatives and policymakers, helping to scale inclusive models into broader systemic change.	Vlaanderen (BE), UKEN (CZ)
Other energy communities	Peer-to-peer collaboration is vital for energy communities, as it allows resource-constrained teams to overcome the technical, legal, and social complexities of alleviating energy poverty by sharing best practices and avoiding common pitfalls. Participating in collective knowledge-building and joint projects accelerates progress, refines inclusive models, and more effectively translates local experiences into impactful, scalable solutions.	Coopérnico (PT), Sociedad Cooperativa Eléctrica La Corriente (ES), EU- projects: CEES , RENPOWER , Power Up , Engage in Energy , SOCIALNRG
NGOs and community groups	NGOs and community groups may already possess deep-rooted trust, local insights, and established communication channels with vulnerable households that energy communities may lack. By acting as intermediaries, they can translate complex energy initiatives into accessible, needs-driven support while ensuring that social equity and dignity remain at the core of technical energy interventions.	CE La Bordeta (ES), Coopérnico (PT), ZuidtrAnt (BE)
Religious organisations	In Italy, the Catholic Church – Particularly through Caritas – has played a key role in motivating local communities to establish energy communities with a strong social purpose. These initiatives are inspired and motivated by the principles of Laudato Si’ and Laudate Deum, which emphasise ecological responsibility and social justice through community involvement and participatory action. Despite the many regulatory and financial challenges, the Church’s involvement provides legitimacy and a strong ethical foundation for these initiatives.	Caritas Incontro (IT), CERs SOLEdarietà (IT)

By forming formal partnerships with municipalities, NGOs, social-welfare organisations and housing associations energy communities can co-design (and co-finance) solutions that align with wider social needs and ensure integration and coordination of their actions with existing support programmes, which is crucial to effectively address vulnerabilities.



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Risks, challenges and barriers

- ✎ Projects must constantly **reconcile diverse stakeholder agendas** while safeguarding the initiative's democratic core, long-term financial stability, and social acceptance.
- ✎ While municipal involvement is essential for policy support, there is a risk that the authority of local government bodies can **overshadow** or stifle the grassroots, participatory nature of energy communities.
- ✎ WOW Wageningen emphasised that when collaborating with housing providers, residents may **defer to the expertise of their housing provider** rather than engaging directly with the energy community, demonstrating that institutional support does not automatically cultivate the sense of agency and empowerment required for long-term community resilience.
- ✎ Local government and social support organisations suffer from a lack of time, human resources, and technical knowledge, which, as highlighted by Telheiras/Lumiar REC (PT) hinders their ability to effectively recruit and mentor their beneficiaries within energy communities.
- ✎ Broader implementation is frequently obstructed by external structural factors, including chronic underinvestment in the affordable housing sector, restrictive regulatory frameworks, and a lack of technical expertise (ex. among social housing providers).

3.3 Key activities

Common activities and services of energy communities include renewable energy generation (producing energy to sell on the market), energy sharing, renewable energy supply, and complementary services such as energy advice, project development, energy management, storage and e-mobility. These activities create value by providing members with access to locally produced renewable energy, reducing energy costs and increasing energy autonomy. However, these activities and services—whether provided by energy communities or more broadly across the energy sector—are often unintentionally structured in ways that favour households with higher energy consumption, access to smart meters, suitable housing conditions, greater financial capacity, or the ability to navigate relatively complex systems. To maximise social impact, energy communities need to actively rethink the design of such activities for them to match the lived realities of households experiencing vulnerabilities.



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Adaptations for inclusivity and energy poverty alleviation		Examples
Energy production	Many energy communities are formed with the goal of jointly producing renewable energy, which not only increases clean energy in the system but can also generate income once initial investments are recovered. Some energy communities used revenues from early support schemes such as feed-in tariffs and premiums, which guaranteed fixed prices for energy sold to the grid, to provide support services - such as energy efficiency advice, renovations, educational activities and free membership options - for vulnerable households. However, these schemes have largely been replaced by competitive auctions and tenders, which often disadvantage smaller actors like energy communities due to complex rules, procedures and price-driven competition by larger actors. Alternatively, energy communities may also sell their energy to external suppliers, which then sell it on the wholesale market, to generate revenue for social activities.	Brixton Energy Solar projects (UK)
Enabling individual self-consumption	The energy community can finance and manage solar PV as a service for individual households experiencing energy poverty, effectively removing the barriers of high upfront investment and the technical complexity of becoming prosumers on an individual basis. By partnering with social housing providers and social services, they can provide vulnerable families with immediate, long-term reductions in energy costs. Billing, administration and payment arrangements can be managed by the social housing provider to further reduce complexity for vulnerable residents.	Buxia Énergies (FR), Coopérnico (PT), Ecopower (BE), Energiecoöperatie OostBrabant (ECoOB) (BE), Lightbringers Foundation (HU)
Enabling collective self-consumption	Similarly to financing and managing rooftop solar for individual households, energy communities can finance and manage rooftop solar on multi-apartment buildings for collective self-consumption. Vulnerable households living in multi-apartment buildings rarely own their roofs, and thus cannot become prosumers on an individual basis. Collective self-consumption allows them to share the roof space of their building to lower individual utility bills either by using the generated energy for common areas, or by allocating the energy generated – or the benefits generated by the sale of energy – to residents.	Brixton Energy Solar projects (UK), ECLAIRS (FR), Sun Sud (BE)



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Energy sharing of community-owned renewable energy	Energy sharing broadens the scope of the right to self-consume renewable energy production collectively beyond the building level in near real-time (i.e. without relying on a traditional supplier).¹¹ A key objective is to maximise self-consumption and reduce reliance on volatile energy markets to lower energy costs and administrative complexity for the participants, strengthen local energy security and relieve stress on the grid. Projects are typically small-scale community-owned centralised PV installations on schools or apartment blocks or larger renewable power plants. Energy sharing is also possible with community-owned distributed generation, such as installations on individual houses (ex. Klimaan's (BE) Otterbeek project). These different operating models can also be combined, depending on national legislation. In energy sharing projects, energy communities can research and select an allocation key that prioritises the financial relief of vulnerable households. This formula determines how the shared production will count towards particular members' energy bills. Some Member States only allow for one sharing coefficient to be used by all energy sharing initiatives, while others let a community choose their own dynamic sharing coefficient. Static methods, such as fixed percentages or allocation proportional to consumption, may yield suboptimal self-consumption rates or higher benefits for higher-consuming households respectively, thereby limiting overall economic efficiency. In contrast, adopting a dynamic allocation model allows for the optimisation of energy flows to maximise both self-consumption and total cost savings. Individual smart meters and supportive national regulations are important prerequisites.	Brupower (BE), Collective Energy (COEN) (EL), Energetska Zadruga Zeleni Hrastnik (SI), Hyperion (EL), Klimaan (BE), Minoan (EL), Telheiras/Lumiar REC (PT),
Energy sharing of individually owned distributed production of renewable	In this scenario, energy is generated by facilities owned by individual members of the energy community and is shared directly with other members of the energy community who do not have their own production installations. This form of energy sharing is based on purchase agreements. It can involve longer-term fixed price purchase agreements, or the use of a digital "peer-to-peer trading" platform or system that connect producers and consumers within a short-term market place. Such a platform or	Our Power (AT), Women in Energy Transition (ES)

¹¹ More information on energy sharing for energy communities, see [Energy Communities Repository \(10 June 2024\) Energy Sharing for Energy Communities – a Reference Guide](#).



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energy by community members	system helps energy communities to understand how much energy is available, who needs it, and at what price. ¹²	
Affordable supply	Energy communities with a supply license can supply locally produced renewable energy to members “at cost”, effectively shielding vulnerable households from commercial market price volatility. Holding a supply license eliminates the dependency on third-party commercial utilities, removing major administrative and financial hurdles to delivering locally generated solar power straight to residents' bills. It also enables the community to integrate solidarity mechanisms into its retail operations—such as multi-tiered tariffs, on-bill micro-donations, and pre-financed "social share" schemes, gradually paid back through savings on energy bills (for example). The energy community a long-term contract or Power Purchase Agreement (PPA) with a social housing provider, reducing exposure to energy-price volatility for tenants while creating stable revenues for the community that can be reinvested in affordable energy and other community benefits.	Ecopower (BE), Enercoop (FR), Énostra (IT)
Community Heating and Cooling	Heating and cooling account for around half of the EU's total energy consumption, making it a key area where energy communities can make a difference. Renewable heating and cooling can draw on solar, bioenergy, geothermal, aquathermal, renewable electricity, and ambient heat, with thermal energy used directly, indirectly, or stored to balance peaks. Community-led heating and cooling projects (CH&C) can lower costs, cut emissions, and improve energy resilience. For vulnerable households, expanding community-led heating and cooling offers a path to fairer access, reduced energy bills, and greater protection from energy crises. ¹³	BEG (DE), ESEK (EL), WOW Wageningen (NL), ZuidtrAnt (BE)
Home visits and simple energy	Energy communities have long provided energy efficiency advice and practical materials to help households reduce their energy consumption. This often includes home visits and direct engagement with residents, providing them with the knowledge and tools needed to implement energy-saving measures. Support can range from simple, short-term interventions—such as distributing LED bulbs, insulation	City of Liège (BE), Klimaan (BE), Wattnu (NL), ZEZ (HR)

¹² [Energy Communities Repository \(10 June 2024\). Energy Sharing for Energy Communities – A Reference Guide.](#)

¹³ [REScoop.eu \(3 July 2023\). Community heating and cooling: The road to energy democracy.](#)



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efficiency interventions	strips, or slow cookers—to helping households understand their energy bills, access public support schemes, and compare suppliers. Although these activities can be time- and resource-intensive, they are relatively easy to scale and adapt to different local contexts.	
Energy efficiency and retrofitting	Where appropriate, the energy community can act as an ESCO, financing and coordinating energy-efficiency improvements in single family homes or social housing and recovering its investment through energy savings. This can overcome households' and housing providers' upfront financing and expertise barriers while reducing energy bills for vulnerable residents. The energy community provides capital and technical management, while residents and housing providers benefit from lower energy costs and improved building(s). This shifts the model from household-funded “pay-to-save” to a “service-for-savings” approach, making energy-efficiency improvements more accessible to vulnerable residents.	City of Liège (BE), Ecovision (IE), Energent (BE),
Education and awareness-raising	Education and awareness-raising helps residents understand the services available to them and, where possible, build the confidence and knowledge needed to participate actively in the energy community. This can include early-stage workshops, outreach activities, home visits and neighbourhood assemblies, as well as establishing resident representative bodies in apartment blocks where social ties might be weak. Energy communities can also provide training and personalised guidance to empower households to take on active representative roles in governance and decision-making, both within the community and more broadly.	Coopérnico (PT), Goienar (ES), Lightbringers Foundation (HU) , Llobregat Energètica (ES), SunSud (BE), Westmill Sustainable Energy Trust (WeSET) (UK)
Monitoring outcomes	Communities must adopt evaluation protocols that look beyond energy output to track social impact. Relevant activities include tracking participation, energy-cost reductions, energy savings, accessibility of services, resident satisfaction, representation in governance and the distribution of costs and benefits across different groups. In short, it's getting into the messy, qualitative, and locally specific realities that matter most to people. This allows the community to adjust its allocation mechanisms, services and outreach activities when they are not delivering the intended social impact.	



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Partnership coordination	Delivering services to address social justice and energy poverty requires close coordination with social-housing providers, municipalities, social services, DSOs, energy suppliers, technology providers, installers and financing partners.	Goiener (ES), Innovacoop (IT),
Staff and volunteer training	Involving volunteers in energy poverty initiatives requires careful planning, training, and support. Training in empathy, active listening, and non-judgemental communication is essential, alongside safeguarding measures such as background checks, paired home visits, and clear identification. Volunteer well-being should also be supported through debriefing and self-care.	Lightbringers Foundation (HU)
Securing funding	Tackling energy poverty often requires activities that create significant costs but do not generate direct revenue. To maintain financial viability of the project, energy communities often seek additional funding to meet the upfront and operational costs of tackling energy poverty and building inclusivity mechanisms.	

Less highlighted by respondents:

- **Supporting the electricity grid:** balancing electricity supply and demand by adjusting when energy is produced, stored, or consumed.
- **Electric mobility:** providing services related to **electric vehicles and charging**.

More advanced models were not really highlighted during the mapping by participants, in any case such models, such as local energy markets and flexibility trading are still generally difficult to implement because of regulation, technology and minimum market requirements.

Risks, challenges and barriers

- ✳️ **Regulatory and infrastructure barriers:** community-led heating and cooling remain unevenly recognised across the EU, while energy-sharing initiatives face regulatory complexity, grid-access constraints, limited digital infrastructure, and low public awareness. For example, ECoOB's plans to expand energy sharing to vulnerable households are currently constrained by the high associated costs. These barriers can make energy-sharing models particularly difficult and costly to develop for vulnerable households.
- ✳️ **Challenges in delivering energy renovations:** retrofitting for vulnerable households remains relatively uncommon due to substantial financial, technical, administrative, and organisational barriers. Large-scale renovations can also be disruptive and difficult for households to navigate, making



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trust-building, tailored support, technical expertise, and long-term coordination essential, which in turn becomes highly resource intensive for energy communities.

- ✦ **Public procurement** : navigating public procurement processes may require expertise, administrative capacity, and organisational resources that smaller communities do not always have.
- ✦ **Need for integrated approaches**: energy poverty cannot always be addressed through a single activity. Combining energy supply, energy sharing, efficiency advice, awareness-raising, and financial support can increase impact, but also increases the complexity of coordinating activities, partnerships, funding, and resources. This can create additional organisational and capacity challenges for energy communities.

3.4 Key Resources

We need capital, social capital, but above all human capital!
- Goiener (Open Call submission)

Adaptations for inclusivity and energy poverty alleviation		Examples
Empathetic Volunteer and Staff Networks	Energy communities often operate with small staff teams and rely heavily on volunteers, whose time, skills and networks form a crucial part of the social capital sustaining these initiatives. To prevent volunteer burnout and ensure long-term sustainability, initiatives must prioritise healthy group dynamics, through participatory approaches, shared leadership and responsibilities and the celebration of small successes. Access to technical support, training and capacity-building schemes can also reduce the burden on volunteers when managing complex projects. To promote inclusivity, volunteers and staff should receive training on inequalities and vulnerabilities and how these may affect participation.	Wattnu (NL), Repowering London (UK), Telheiras/Lumiar REC (PT)
Members' social networks and expertise	A key resource sits within the neighbourhoods it serves, using residents' local knowledge, expertise, skills and networks to build trust and ensure the project meets the needs of all residents. To make an energy system work for communities, lived experience is as essential a form of expertise as technical knowledge.	Lightbringers Foundation (HU), Repowering London (UK)



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Community trust	Trust serves as the fundamental prerequisite for energy communities to successfully engage vulnerable households, gain social legitimacy and address energy poverty. Cultivating this trust requires time and strategic partnerships with social services, local governments, and community organisations to ensure participants feel informed and supported.	
Local partnerships	Through partnerships with organisations households already trust – like social housing providers, charities, or neighbourhood groups, - energy communities can harness established community presence and systems households are already used to (ex. existing housing management systems) to ensure the initiative stays rooted in the community for the long haul.	ALIenergy (UK), Repowering London (UK), UKEN (CZ), ZuidtrAnt (BE)
Rooftop Infrastructure	Purchasing or renting rooftop space for solar projects can be a significant cost. When municipalities, social housing associations, or other local entities (ex. school or church) donate this space or lease it for free, it provides the energy community with some “fiscal room” to design a business model that prioritises social outcomes. physical solar installation on a local, trusted building (like a community centre or parish church) serves as a "visible proof of impact." It is an effective, non-verbal way to build trust with residents, showing them that the project is permanent, local, and working for their benefit.	
Legal and regulatory framework	Supportive policies at national and municipal levels can be powerful enablers for energy communities and can help unlock inclusive and equitable energy solutions. In Greece, for instance, the regulatory framework allows energy communities to include vulnerable households in collective self-consumption projects at no cost, with other members covering the related expenses. Within this framework, Hyperion (EL), a Greek energy community, established a 500 kWp solar park, dedicating part of its output to energy-poor households free of charge. In Italy, the regulatory framework has encouraged respondents to pursue energy poverty alleviation measures through incentive tariffs for energy produced from renewable sources and self-consumed by REC members - GSE-administered tariffs (€60–120/MWh), ARERA compensation fees (~€8/MWh), and regional grants covering up to 40% of installation costs.	Hyperion (EL)
Legal structure	Official registration as an energy community is often necessary to benefit from special support such as feed-in-tariffs or dedicated financial support. Different legal forms are available across Member States (ex. (cooperative, limited liability company, trust, or other form), and the most appropriate option depends on	



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the community's needs, activities and local legal framework. When working with vulnerable households, or in a context such as a social housing neighbourhood, this step requires particular consideration, as the time, administrative capacity and financial resources needed to establish and manage a legal entity may create certain challenges (see point below).

Risks, challenges and barriers

- ✿ **Volunteer burn-out:** While volunteer contributions are invaluable, a number of respondents, such as Telheiras/Lumiar REC (PT), Goiener (ES) and Argiola (ES) point out the challenges and stress that come with relying on volunteers, especially when it comes to their involvement in energy poverty alleviation schemes. Telheiras/Lumiar REC explains that maintaining volunteer engagement has been an arduous task since the planning of their project was long and motivation levels varied during the process.
- ✿ **Lack of data on energy poverty:** many respondents struggle to identify vulnerable households due to a lack of standardised data, rigid eligibility criteria and limitations with regards to institutional data-sharing. Often they have to rely on inefficient, ad-hoc methods. In Spain, for example, Getafe (ES) and La Corriente (ES) noted that the Bono Social (social bond) helps identify vulnerable households. Authorities insist on the use of its indicators as a precondition for offering support to energy communities. However, the system has clear flaws, granting the social bond to families with three or more children, regardless of their actual economic situation, while some families, who might be in need of support, are unaware of how to apply for the bond. Similarly, in France, economic criteria serve as the predominant means to identify energy poverty. Energy communities like Enercoop (FR), who aim to go beyond such criteria to identify clients who may benefit from solidarity tariffs or bill support, often struggle and have to rely on case-by-case decisions. They face difficulties in gathering social expertise and managing customer relationships to correctly identify energy poverty without stigmatising or raising suspicion among clients.
- ✿ **Structural barriers:** complex administrative procedures, such as lengthy licensing processes, the absence of supportive legal frameworks, limited data and policy attention to energy poverty, weak monitoring and evaluation systems and ongoing uncertainty in policy and regulation discourage investment and undermines long-term planning, making it harder to scale inclusive solutions. Such issues were highlighted by respondents from France, Belgium, Portugal, Spain and the Netherlands. In addition, energy, climate, and social policies often function in isolation, reducing the effectiveness of initiatives designed to tackle crosscutting issues.



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- ✿ (...) the public and private entities involved in the licensing, regulatory and management processes should support and help those wishing to create energy communities, for example with the creation of specific help desks, instead of putting up barriers without, in most cases, providing justification for them or providing any advantage.
- Lumiar Civil Parish (Open Call submission)
- ✿ In Germany, **EWS Schönau (DE)** highlights the country's rigid separation between social and energy policies as a major barrier as it fails to acknowledge energy poverty as a distinct issue. This lack of institutional backing makes it difficult to implement effective measures against energy poverty.
- ✿ **Corporate capture:** from an administrative perspective, energy communities are often treated in the same way as private, profit-driven companies, which complicates their acceptance and institutional support. Public administrations frequently fail to recognise the non-profit and socially oriented nature of these initiatives, placing them under the same regulatory and bureaucratic frameworks as commercial actors. As a result, energy communities must compete on equal terms with companies that have far greater financial and organisational resources. This lack of differentiation undermines their potential to deliver community-oriented benefits and, in some contexts such as Spain, this is further aggravated by corporate capture, where established market players influence regulations and decision-making to reinforce their dominance.
- ✿ **Support gap:** Even where formal policy recognition exists, the absence of concrete implementation mechanisms results in a "support gap," where communities struggle to compete against incumbent commercial players who leverage superior resources and undue influence over regulatory design.
- ✿ **Setting up a separate legal entity:** For a small energy sharing or collective self-consumption initiative, the effort to establish and manage an official energy community may be disproportionate to the scale and expected benefits of the activity. To make an estimation of the costs (time, energy, resources) versus benefits of setting up a legal entity, these are things to consider¹⁴:
 - Does the initiative aim to not only focus on energy sharing but also offer other energy services? Or does the initiative want to involve other buildings or small businesses. If so, an energy community structure may offer important benefits.
 - Registration as an energy community is often necessary to benefit from special support such as feed-in-tariffs or dedicated financial support.
 - If the community wants to formalise ownership over the activity, it might be worth setting up a legal entity.
 - The registration and connection process (and price) for validating an initiative may, depending on the national context, be the same for energy sharing and establishing an energy community.

¹⁴ [Energy Communities Repository \(10 June 2024\). Energy Sharing for Energy Communities – A Reference Guide.](#)



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- Could energy sharing or collective self-consumption within the community be organised without creating a new legal entity: could an existing energy community act as a service provider and assume certain responsibilities on behalf of participants?
- Finally, for multi-apartment buildings specifically: according to the Commission, existing owners' associations cannot register as an energy community, because membership is required by law, whereas membership of an energy community is by legal definition open and voluntary. Setting up an additional legal entity may be perceived as burdensome and may hamper the uptake of energy communities in multi-apartment buildings.¹⁵

3.5 Customer Relationships

Energy communities in Europe take on diverse legal forms, governance models, and organisational structures, reflecting local dynamics, traditions, member needs, and national legal contexts. They range from small, volunteer-led neighbourhood initiatives to large, professional cooperatives that manage multiple renewable energy projects. Unlike traditional energy market actors, energy community “customers” often play multiple roles simultaneously. They can be owners, investors, and consumers all at once, depending on the organisation. Within these multiple roles they organise for regular personal contact, transparent and democratic governance, and open and voluntary membership. On the contrary, Open Call responses highlight that vulnerable households mostly take on the role of beneficiaries of specific services (see customer segments below). This has an impact on the level of engagement established between energy communities and vulnerable groups. Yet, for energy communities to become inclusive and structurally tackle energy poverty, different people (i.e. from different backgrounds) need to belong and shape the initiative. This relationship-building should be continuous, participatory, designed to build trust and agency while, crucially, incorporating certain social safeguards for vulnerable groups.

¹⁵ [European Court of Auditors \(March 2026\). Special report 10/2026: Energy communities – Potential yet to be fulfilled](#)



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Adaptations for inclusivity and energy poverty alleviation		Examples
Trust-building	For inclusive RECs aiming to tackle energy poverty, trust-building is not just a soft social goal, but a core operational requirement. It entails long-term relationship-building to overcome scepticism and past negative experiences.	Argiola (ES), Energetska Zadruga Zeleni Hrastnik (SI), Oliver (CE), Repowering London (UK), ZuidtrAnt (BE)
Stigma-free engagement and co-creation	By co-designing energy services, pricing structures, decision-making protocols and neighbourhood projects alongside members of all backgrounds, lived experience is valued as crucial expertise. Returning to participants to demonstrate what changed because of their involvement (closing the feedback loop) creates shared responsibility and accountability. This dismantles hidden barriers for participation and builds lasting trust within the community.	Brupower (BE), Comune di Silvi (IT), SunSud (BE), Repowering London (UK)
Inclusive governance	Institutionalising long-term accountability, equal representation, and power-sharing across diverse demographics prevents membership and services defaulting towards a certain group (ex. middle-class homeowners). For vulnerable households it means that they have opportunities to become formal members and decision-makers with voting rights over strategic budgets, leadership elections and organisational policies, rather than remaining beneficiaries of certain services. Inclusive governance is best built into the way the group operates from the outset, with democratic representation embedded into formal bylaws, board compositions (e.g. reserving seats for people experiencing vulnerabilities and/or their representatives), voting mechanisms (e.g. one member, one vote), and leadership structures. Energy communities can facilitate resident representative bodies, particularly in apartment blocks where social ties are weak, and organise workshops that enable residents to take representative roles in governance and decision-making.	Comune di Silvi (IT), SunSud (BE), Telheiras/Lumiar REC (PT)



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Social Tenancy Safeguards	Developing specialised social tenancy safeguards, such as legal contract addendums (agreements between tenants, energy community, and social landlords) provides safeguards against unintended financial impacts (e.g. rent increases linked to energy upgrades) and tenant displacement, clearly communicate costs, benefits and responsibilities, and establish channels through which residents can raise concerns and influence decisions. It might also provide at least a tangible financial safeguard for the time and emotional energy households might invest in an energy community.	Ecopower (BE), Energent (BE), WOW Wageningen (NL)
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Risks, challenges and barriers

- ✦ **Deep-seated skepticism** toward new initiatives and negative historical associations with cooperative models—particularly in Eastern Europe, where they are often linked to the Soviet era—frequently act as significant psychological and cultural barriers to community engagement.¹⁶

Overcoming this barrier requires time, clear communication, and showing tangible benefits to the community through educational efforts and raising awareness within local communities about the impact and advantages of energy transition projects.
- ZuidtrAnt (Open Call submission)

- ✦ **Knowledge extractivism**, instead of meaningful participation and co-creation, should be avoided by continuous relationship-building. When communities realise their lived experiences are being used without providing reciprocal value it might create participation fatigue. This might reinforce the suspicion that community energy initiatives are just another form of external exploitation.

3.6 Channels

Much like any other organisation, energy communities often operate and communicate through digital-first channels, including online member portals, smartphone energy-tracking apps, email, and virtual platforms to share information, coordinate activities, manage energy use, and access services. While these channels are efficient and widely used, they may not sufficiently meet the needs of vulnerable households, who may face barriers related to

¹⁶ RESPIRA (21 October 2025). [Ecco come possiamo far crescere le Comunità energetiche rinnovabili.](#)



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digital access, skills, language, or confidence. Inclusive energy communities therefore need to complement digital communication with targeted relation-centric outreach activities and accessible offline and personal forms of engagement.

Adaptations for inclusivity and energy poverty alleviation		
Face-to-face, human-to-human	Face-to-face communication and presence humanises the initiative and establishes the long-term trust necessary for citizens to feel safe joining or participating. This can take the form of neighbour-led outreach, maintaining physical desks and direct phone lines to assist those experiencing digital and language barriers. Direct conversations allow local energy coaches and community leads to translate complex topics into plain, accessible language and respond to individual questions in real time.	City of Liège (BE), Coopérnico (PT), Ecopower (BE), Repowering London (UK), Wattnu (NL),
Local newsletter or newspaper	Ecopower (BE) noted that assuming digital tools or online portals are universally accessible leaves behind residents who lack internet/computer access or do not feel comfortable navigating digital platforms. Next to face-to-face contact, communicating through recognised, long-standing local media outlets helps build trust through familiarity.	Ecopower (BE)
Workshops, trainings and educational activities	Workshops, trainings and educational activities can function as dynamic, two-way dialogues. Unlike one-way broadcast media (such as flyers or websites), interactive sessions create an active feedback loop. Capacity-building workshops turn may participants into active communication channels themselves.	Brupower (BE), Coopérnico (PT), Llobregat Energètica (ES), Wattnu (NL), Repowering London (UK)
Trusted local intermediaries	Trusted local intermediaries, including social services and resident associations, facilitate energy-poverty reduction by embedding energy support within established, trusted networks. These entities leverage existing communication channels—such as tenant meetings, digital newsletters, and community notice boards—to disseminate accessible information and lower participation barriers for vulnerable households.	Getafe (ES), Llobregat Energètica (ES), Repowering London (UK), WOW Wageningen (NL)



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Familiar community anchor spaces	Embedding discussions in physical neighbourhood touchpoints and everyday meeting spaces (like neighbourhood theatre tours, local service centres, or community gardens) help create a sense of safety and belonging.	Mirafiori REC (IT)
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Risks, challenges and barriers

- ✦ **Resource intensive:** Managing different communication channels requires careful planning and can be highly resource intensive.
- ✦ **Corporate capture:** misleading marketing by traditional market actors, obfuscating the concept of energy communities, may create confusion and deter participants.

3.7 Customer segments (members)

The Open Call explored how communities engage vulnerable households—whether as beneficiaries, members, decision-makers, or participants in planning and governance—and examined the challenges they face as well as the successes they have achieved along the way.

Full membership remains quite rare in practice and is often limited to piloting inclusive membership options among a small number of households.

Adaptations for inclusivity and energy poverty alleviation		Examples
Vulnerable households (ex. low-income households, pensioners, single-parent families, young couples, immigrant	Involving people experiencing financial or social hardship in energy communities, not only as customers or beneficiaries, but as members, helps bridge social divides and build resilience by ensuring those most affected by energy poverty have both a voice and a role in the energy transition. While financial contribution remains the standard prerequisite for service access and voting rights within many energy communities, an increasing number of initiatives are	Ecopower (BE), Getafe (ES), CE La Bordeta (ES), Lightbringers Foundation (HU), Oliver CE (ES),



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households, emergency buyers)	adopting flexible, solidarity-based models. These innovative approaches—including grant-pooling, nominal fees, beyond-monetary contributions (time, expertise, etc), dedicated social funds, subsidised 'solidarity shares,' and tiered-service structures—aim to dismantle economic barriers and promote inclusive, diverse membership.	
Social/cooperative/public housing residents	Social housing accommodates roughly 11% of European households, housing demographics that are disproportionately exposed to energy poverty—such as single parents, elderly residents, and low-income families. Serving social/cooperative/public housing residents can deliver high social returns. Including residents as members can boost community resilience.	FOCUS (SI), Klimaan (BE), Repowering London (UK), WOW Wageningen (NL)
Social/cooperative/public housing providers	A housing provider can act as a customer of energy services (ex. retrofitting services) or purchase locally produced energy for common areas or dwellings, ensuring stable demand and revenues for the community. However their role can go broader than merely consumption. They can be (founding) members, act as asset providers, aggregators, and risk managers by supplying building rooftops for renewable energy installations, pooling tenant energy demand, and absorbing the financial and administrative requirements that individual low-income households cannot bear alone. By leveraging their pre-existing tenant relationships, housing providers facilitate accessible outreach, energy-saving advice, and direct bill relief.	Castello Green House (IT)

Risks, challenges and barriers

- ✿ **Lack of awareness:** Several respondents highlighted the lack of knowledge and awareness about energy community initiatives and energy poverty solutions as a significant barrier to engaging vulnerable households in energy communities. ZuidtrAnt (BE), Ecovision (IE) and Telheiras/Lumiar REC (PT) for example, note that many households experiencing energy poverty are unfamiliar with the concept of energy communities, their potential benefits, and the ways they can participate.
- ✿ **Financial risk and debt uncertainty:** Low-income households are unable or unwilling to take on financial liabilities or investments, while the potential for payment delays adds financial risk for the energy community.



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✦ **“Welfare dilemma”**: in some Member States, the [Welfare Dilemma](#)¹⁷ may prevent households from participating in energy communities as this may result in the loss of welfare benefits. The impact and extent of such barriers for citizens to engage and benefit is currently not well documented.

3.8 Cost structure

Identifying vulnerable households, managing support schemes, automating savings plans, monitoring energy sharing and other activities all require time and resources. Integrating vulnerable households into energy communities or establishing energy poverty alleviation initiatives requires specialised expertise and can be **highly resource-intensive**. The impact on overall financial sustainability of each of these costs depends on the extent to which they are offset by energy savings, external subsidies, or other sources of revenue.

Adaptations for inclusivity and energy poverty alleviation		Examples
Staff and volunteers	Communities must budget for staff involvement, administration, training, coordination, and expense reimbursement. Although in theory volunteers contribute their time freely, offering a compensation makes volunteering more accessible to people who might otherwise be excluded for financial reasons, thereby contributing to a more inclusive volunteer environment.	ALLenergy (UK), ZEZ (HR)
Subsidised, free energy provision and other services	Offering discounted energy, conducting home energy audits, and providing personalised energy support can reduce the energy communities’ net revenues while increasing operational costs per household (ex. staff time, administrative tasks, revenue reductions, etc). Some respondents adopt a repayment scheme through cost savings on energy bills.	COEN (EL), CE La Bordeta (ES), ECoOB (BE), Hyperion (EL), Klimaan (BE)
Waived and absorbed membership fees or mandatory share entries	Absorbing membership fees or share capital for vulnerable households requires an upfront organisational cost to grant low-income households full co-ownership and voting rights	Argiola (ES), Getafe (ES), CE La Bordeta (ES), Ecopower (BE),

¹⁷ [Lowitzsch J, Bucha, M & Lonscher S. \(October 2025\). From Access to Ownership. Energy Communities & Social Inclusion in the EU’s Energy Transition.](#)



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	without receiving equity contributions. Some respondents adopt a repayment scheme through cost savings on energy bills.	Energetska Zadruga Zeleni Hrastnik (SI), Energía Bonita (ES),
Communication and training materials	Energy communities must budget for activities that translate complex technical and administrative information into accessible formats. This involves recurring costs for physical materials—such as plain-language guides and multilingual translations—, neighbourhood events (venue hire, refreshments, staff and facilitator time), workshop materials, etc.	
Late and non-payment	Providing electricity or other paid services to households experiencing financial hardship may create a financial risk of non-payment, which necessitates a protective "buffer" of cash that cannot be used for other community investments. It may also create extra staff costs to apply a soft approach to prevent debt accumulation.	Ecopower (BE)
Energy-saving hardware and material toolkits	Such as draught excluders, radiator reflectors, LED bulbs, and insulation tape for immediate efficiency fixes.	Lightbringers Foundation (HU)

Risks, challenges and barriers

- ✎ **Cost-revenue imbalance:** Energy communities aiming to address energy poverty often face costs that are not matched by revenues. This can strain their other activities and, in some cases, threaten the viability of their overall business model. Because social value is still rarely recognised in today's energy markets, many communities find it difficult to integrate such activities sustainably into their business plans or portfolios.



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3.9 Revenue streams

As stated by the Energy Community Financing Guide:

Financing community energy projects is more than just making sure that the right amounts of money flow in and out of the project. It is also highly linked to questions like “how do we safeguard our autonomy?”, “how do we facilitate access to our community in a way that allows everyone to participate?”, “how do we see our community evolve in the short and in the long run?” and “how do we want to approach potential members of our community?”

Energy communities typically rely on a mix of different financial resources and activities that generate revenue. Even if their main purpose is not to generate profit, they still need to run profitable initiatives. Because energy poverty initiatives aim to offer low, "at-cost," or free electricity services for vulnerable households, revenue margins become compressed. To strengthen their support towards vulnerable households must thus either grow large enough to generate enough surplus profit through other activities or secure additional funding such as EU subsidies, grants, donations, or CSR funding.

Adaptations for inclusivity and energy poverty alleviation		Examples
Sale of members' shares	Energy communities often opt for 50% to 100% equity financing to keep control and ownership with the members. It means that capital is raised from new and existing members of the energy community to self-finance projects or services. Households experiencing financial hardship may lack the disposable income or savings required to purchase shares upfront. Solidarity or third-party capital, such as internal or municipal pre-financing schemes, may offer opportunities to create equal equity ownership opportunities for households from diverse backgrounds in the energy community. This can grant access to financial dividends or long-term access to "at-cost" electricity tariffs, yet, equity ownership may also come with financial risk if a project fails or faces insolvency, which vulnerable households may not be able to bear.	Ecopower (BE), Getafe (ES), CE La Bordeta (ES), Oliver CE
(Annual) membership fees	A membership fee (or nominal entry fee) is an operational payment used to cover basic administrative costs rather than an equity contribution. It is unrecoverable, but also holds less financial risk for households. Even if the project faces difficulties, the household's	Repowering London (UK)



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	exposure is limited to that upfront fee, with zero risk of capital loss or ongoing financial liability. Some organisations adopt low membership fees for vulnerable households (£1 for Repowering London).	
Sale of goods and activities	Sale of goods and services generates revenue when energy communities charge members, households, public authorities, or other customers for products and services such as renewable electricity, energy management, energy audits, renovation support, maintenance, or training. Communities can differentiate prices, cross-subsidise services, or use revenues from higher-paying customers to finance free or discounted services for vulnerable households thereby meeting members' different abilities to pay while avoiding cutting a necessary revenue stream.	Castello Green House (IT), CERs SOLEdarietà (IT), ECoOB (BE), Hyperion (EL), Klimaan (BE),
Solidarity levies and donations	Members pay a voluntary top-up or one-time solidarity levy on top of their regular energy bill or share capital to fund free membership or energy services for vulnerable households. Women in Energy Transition also experiments with donations of unused kilowatt-hours to support vulnerable households.	Allons en Vent (BE), Enercoop (FR), ECLAIRS (FR), Energía Bonita (ES), Hyperion (EL), Lightbringers Foundation (HU), Oliver CE (ES), Som Energia (ES), Women in Energy Transition (ES)
Public support schemes	The ESPON TANDEM project, one of the largest EU-level mapping exercises for energy communities, showed that there is a strong correlation between the availability of funding instruments, and an energy community implementing actions to tackle energy poverty and promote social inclusiveness. The provision of grants for development/start-up costs of energy communities provide an important financial incentive to undertake projects that alleviate energy poverty. Early support schemes such as feed-in tariffs and premiums, which guaranteed fixed prices for energy sold to the grid, also created opportunities to provide support services - such as energy efficiency advice, renovations, educational	Argiola (ES), Castello Green House (IT), CERs SOLEdarietà (IT), Ecovision (IE), Oliver CE (ES)



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	activities and free membership options - for vulnerable households. However, these schemes have largely been replaced by competitive auctions and tenders.	
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Risks, challenges and barriers

- ✦ **Balancing market participation with social impact** : Coopérnico (PT) and Telheiras/Lumiar REC (PT) emphasise that integrating vulnerable households into energy communities or establishing energy poverty alleviation initiatives requires specialised expertise and can be highly resource-intensive. Without adequate support, such as grant funding or mechanisms to offset implementation and operational costs, these efforts risk undermining the economic viability of energy communities within a competitive market.
- ✦ **Accessibility issue**: despite existing incentives and support schemes, Open Call respondents noted a lack of transparency, complex application processes and a lack of value attributed to social impact generated. This is both an issue for energy communities and households, who struggle to navigate support systems. This can lead to ineffective allocation of resources and undermine social innovation. Different respondents of the Open Call pointed out that energy poverty alleviation measures were ill-targeted and failed to structurally reach and help people in need. In the Netherlands, for example, Energie Samen (NL) notes that government funding intended for local energy communities is often funnelled through municipalities, creating a bottleneck for distribution as they struggle with state-aid and procurement concerns :

Research in the Netherlands is continuously proving that activities for reducing energy poverty are more effective when they are performed by a locally embedded and participatory party, yet they refuse to make a specific budget for these or make goals/targets for municipalities to collaborate with local initiatives.

– Energie Samen (Open Call Submission)

To address this, Member States should ensure that funding application processes are clear, user-friendly, and accompanied by proper technical assistance and capacity building for all parties involved. Concentrating all available EU and national funds under a single national contact point (with regional branches where relevant) would help simplify the process. National federations or community energy expert organisations, often offer One Stop Shop services, assisting members of the local community to access funding opportunities (e.g., grants for home renovations or rooftop PV), and can guide stakeholders on how to create or join an energy community. Member States can provide structural funding to federations of energy communities (e.g., EU funds). There is precedent for this from France: Three French regions already support the regional community energy networks of Energie Partagée (the national federation of energy communities) through the European Regional Development Fund (ERDF). In Region



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Centre-Val de Loire, ERDF funding amounts to 253k€ for the 2023-2025 period, co-financing part of staff costs as well as direct charges. In Grand-Est, it amounts to 107k for 3 years as well, co-financing some staff costs. Region Pays-de-la-Loire recently (2024) decided to co-finance the regional network's action plan for 4 years through a 460k ERDF funding. Wallonia (Belgium) has allocated a 3 year grant of 300.000 euros to the regional federation of energy communities (REScoop Wallonie). The money will be used for capacity building and networking activities related to the social economy.

- ✦ **Corporate capture:** a lack of transparency and dedicated funding comes with a risk of corporate capture, when resources meant for energy communities are absorbed by large commercial entities. The lack of distinction between energy communities as an organisational model and energy-sharing activities increases this risk.
- ✦ **Dependence on project-based time-bound funding:** While support to kickstart an energy community can be a game changer, many energy communities to some extent remain reliant on such grants, donations or public support schemes for energy poverty activities, creating uncertainty about their long-term financial sustainability. Without long-term financial stability the social and structural support systems they developed to tackle energy poverty cannot be sustained or scaled up.¹⁸

¹⁸ LEA (3 June 2024). [Samen Sterk: Wattnu en gemeente Gooise Meren verenigen krachten tegen energiearmoede.](#)



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4 Case studies (A - Z)

Agro Do Amial (PT) | Agro Do Amial in Porto is a collective self-consumption project managed by the municipality with support from Coopérnico, featuring PV installations on schools and multi-family social housing buildings. Since May 2024, 180 households have benefited from monthly energy savings of €30-40. Originally intended as a democratically governed energy community with ambitious objectives for citizen engagement and capacity building, delays in licensing and challenges integrating storage and electric mobility led to a more municipality-driven model. As the financial coordinator and social housing provider, the municipality now operates the initiative primarily as an energy-sharing scheme with limited resident participation in governance and decision-making. While families benefit economically, they miss out on the broader social and economic advantages that come with fully participatory energy communities.

The municipality plans to expand this model to other social housing estates and is considering mechanism where electricity is free for the first five years, followed by a fee-based system, to keep these projects financially sustainable over time. Coopérnico's key takeaway from this initiative is that when municipalities take the lead, shifting from a top-down to a bottom-up approach can be challenging, making it harder for individual households and citizens to access the full array of benefits associated with democratically governed and controlled energy communities.

ALlenergy (UK) | Based in northwest Scotland, where energy poverty rates are particularly high, ALlenergy collaborates with frontline workers such as housing associations, debt advisors, food banks, health and social care providers, and local charities to better identify and address energy poverty. Through tailored training, these workers learn how to recognise early warning signs during home visits, phone calls, or video meetings, and how to open conversations about energy struggles in a sensitive, non-intrusive way. By building on their established trust and deep local knowledge, ALlenergy enables frontline workers to spot potential issues and connect households with the right support—whether through ALlenergy's own energy advice services or referrals to other organisations. This approach makes frontline workers essential allies in reaching households that might otherwise remain hidden or hesitant to seek help.

Allons en Vent (BE) | Belgian cooperative Allons en Vent offers the possibility to make an investment for the next generation and built a wind turbine called “L'éolienne des enfants”, which means the “children's wind turbine”. With shares only costing 100 euros over 1200 grandparents and parents were able to give their (grand) children access to



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renewable energy. The turbine was installed in 2006 and inaugurated by a children's orchestra. Today, the children have grown up and are running the cooperative.

Argiola (ES) | Argiola, a Basque energy cooperative in a small town of 4,000 residents, is preparing to enable broad participation — including by vulnerable households — through regional government funding for the installation of two PV systems. It's a case in point of how capital contributions by supportive partners, in this case the regional government, can make an important difference for energy communities to pursue impactful social objectives. Thanks to the grant, vulnerable households can join without making an initial payment, becoming full members on equal terms. They will contribute a fixed yearly amount to the cooperative, calculated from the estimations of savings generated through self-consumption. To ensure the cooperative's economic sustainability, half of these savings will be reinvested into the cooperative to cover maintenance and other expenses. Social services are helping identify eligible households within a 2 km radius of the installation, which is expected to be operational by the end of 2025.

However, building trust has been a major challenge. Many people are unfamiliar with energy communities and often assume they operate for profit. Past abuses by large energy companies have left citizens wary of making changes to their energy bills, and even when savings are possible, the requirement to make an initial contribution raises doubts

Brixton Energy Solar projects (UK) | The Brixton Energy Solar projects demonstrate how community-owned renewable energy production can benefit vulnerable communities. Cooperatively owned PV installations were placed on housing estate rooftops in Brixton, a particularly deprived area in London, with funds raised through community share offers that gave residents partial ownership. Residents were strongly involved in the development of the installation and cooperative and have benefited from training and work experience opportunities. Revenues are shared among investors and channelled into a community fund to organise additional local RE projects, events, trainings and programmes. Communal spaces and residents benefit from lower energy costs. However, without a supply licence a core challenge is getting the locally produced renewable electricity directly to the residents. This is now arranged through a favourable collaboration with a licensed supplier. But the complexity and limited profit for the supplier compromise the scheme's long-term viability.

Brupower (BE) | Brupower, a cooperative energy initiative in Brussels, has encountered significant barriers in ensuring households trust and engage with cooperative solutions. As Brupower expands beyond its existing energy sharing activities to establish an electricity supply service, they aim to ensure it meets local needs. To achieve this, they are



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actively co-designing the service with Brussels residents, prioritising direct outreach and collaborative planning, with a special focus on engaging and supporting vulnerable households. Through four focus groups representing the city's diversity, Brupower explored fair and inclusive pricing models, tailored service offerings, and potential solidarity initiatives to finance such services and support low income households. Participants were recruited through a collaboration with the municipalities' social services and community organisations.

A key takeaway from these engagement efforts is that accessibility goes beyond communication—it requires inclusive service design and engagement, ensuring that human support remains central, especially as many energy providers have become less reachable. One focus group held at a local service centre in Etterbeek drew overwhelming interest, leading to a follow-up initiative for neighbourhood-based energy actions. Participants were most motivated by collective, tangible neighbourhood projects rather than abstract discussions on technical topics or the climate, demonstrating the importance of localised, action-oriented engagement. These insights will shape the final service model, with further details outlined in an upcoming report (end of 2025).

Bürger-Energie-Genossenschaft Neuburg-Schrobenhausen-Aichach-Eichstätt eG (BEG) (DE), | Bürger-Energie-Genossenschaft Neuburg-

Schrobenhausen-Aichach-Eichstätt eG (BEG), is an energy cooperative operating in Bavaria, counting more than 900 members. It was set up in 2013 to initiate, finance and operate new renewable energy installations, including energy generation, storage and distribution in the region. BEG's first cold heating and cooling project was initiated in 2022 in collaboration with the local council of Königsmoos, a town of 5,000 inhabitants. The municipality wanted to implement a sustainable energy supply for a new housing development without relying on fossil fuels, due to rising gas prices and the need to reduce greenhouse gas emissions. The new system now provides renewable heating and cooling for 40 homes and 160 residents. Since, the same system has been set up for 65 homes in the city of Schrobenhausen.

Buxia Énergies (FR) In Voiron, France, in the Isère department, a group of co-owners have built a shared housing complex: the Préau des Colibris. Already constructed using eco-friendly materials, the project leaders wanted to take the building's ecological credentials even further by installing solar thermal panels. A 6 kW system was installed on the roof of the residence with financial support from **Buxia Énergies (FR)**, a local renewable energy cooperative. It is France's first community-owned solar thermal power plant. The energy is leased to residents at a fixed price for 10 years, after which, once the



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investment has been recuperated, ownership of the installation will be transferred to them. Thanks to this project, tenants have halved their heating bills.

Caritas Incontro (IT) | In San Severo, Puglia, Caritas Incontro has created an energy community to support individuals and families facing economic hardship in a socially challenging environment. Partnering with Hivergy, Agape, and backed by a €150,000 grant from Fondazione Con Il Sud, the initiative installed a 30 kWh photovoltaic system on Caritas premises. This system powers essential community services like a canteen and dormitory while cutting energy costs by €4,000 annually. A portion of the generated energy is redistributed to local families, prioritizing those in need.

Italy's right wing government places a lot of emphasis on profitability of energy communities, while the support of the Church allows us to emphasise the social and environmental benefits of community energy. – Lorenzo Caseri, Caritas Incontro

Beyond energy savings and supply, the project fosters social inclusion and empowerment. Caritas, with the support of social assistance cooperative Agape, runs sustainability awareness programs and a Fab Lab offering digital training and reintegration support for young people from local detention centres. While financial relief initially drove participation, members have since built a sense of ownership and solidarity. With a one-member, one-vote governance structure, the community ensures that vulnerable households have a say, reinforcing its mission to create a resilient and inclusive local energy model. At the moment, the energy community is still in its starting phase, with 10 members and its first PV installation operational since 2024. It is emphasised that the main goal is to build resilient communities, with the energy community seen as just one instrument to achieve this goal.

Castello Green House (IT) | The Castello Housing Cooperative, founded in the 1970s to provide affordable and permanent housing, established Ferrara's first energy community, Castello Green House, in 2024. Bringing together 43 founding members, including the cooperative itself, its first project focuses on managing a photovoltaic system across cooperative-owned buildings in Ferrara, Copparo, and Comacchio. Revenues from self-consumption incentives and surplus energy sales will be reinvested into social initiatives, awareness and education programmes, and energy efficiency measures, with a strong focus on supporting vulnerable households. Selected as a pilot in the EU's Citizen-Led Renovation (CLR) Initiative and supported by Innovacoop, the cooperative plans to upgrade more than 500 housing units, aiming for a 33% reduction in energy consumption. A key takeaway for Castello Green House: the housing cooperative created and maintained



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a strong sense of community, providing a solid foundation for the establishment of an energy community, particularly one with a strong social focus.

CERs SOLEdarietà (IT), | Milan-based CERs SOLEdarietà manages and self-consumes local photovoltaic systems on the Church and Parish house of S.M. Goretti and Caritas Ambrosiana's Refectory in the city's Greco District. The CER is currently composed of five members (all religious entities or similar). The PV installations were funded by a donation from Edison (for CSR purposes) through Banco dell'energia, a Foundation supporting the realisation and funding of projects on the issue of energy poverty and CER by energy providers. Through self-consumption of locally produced energy, the CER manages to generate energy savings for their members. These energy savings, along with incentives from the state for self-consumption and revenues from selling excess energy to the grid, generate additional funding available for supporting social initiatives. This includes supporting the payment of bills of people helped by the Parishes, providing energy

efficient appliances to vulnerable households, educational workshops on energy savings and strengthening Caritas' services for those most in need.

Caritas Ambrosiana has played a key role in promoting the initiative, inspired by the Papal Encyclical *Laudato Si'* to advance environmental protection, social support, and community education. They offer an example for other parishes to establish energy communities, though financial barriers remain a significant challenge for most. Caritas sees energy communities as vital tools for social inclusion, community resilience and peace.



Refettorio Ambrosiano © Getafe

City of Liège (BE) | In Belgium, the city of Liège, supports local energy initiatives by funding and coordinating actions against energy poverty, such as the RenoVan—a pilot project under the INTERREG project SCEPA. This initiative helps existing organisations raise awareness, provide first diagnostics, and carry out small home repairs, serving as a first step toward deeper renovations or joining energy communities. Run in partnership with a social economy organisation, RenoVan also supports job reintegration through skills training.



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CEEL (Ceinture Energ’Ethique Liégeoise), launched in October 2024, aims to function as an inclusive energy community and solidarity platform to combat energy poverty, integrating renovation support, energy sharing, and renewable energy production, prioritising vulnerable households. Still in development, the project seeks to define how the city can best facilitate its success while ensuring strong community involvement. For local authorities such as the City of Liège, energy communities can offer a real boost for reaching social and climate objectives. For cities, working with an energy community enables their actions to be rooted in the reality of the citizen, facilitates acceptance of public intervention and ensures presence on the ground.

Collective Energy (COEN) (EL) | In Greece, Collective Energy (COEN) (EL) is making clean local energy more accessible to vulnerable households through a virtual net-metering scheme. Currently, two low-income single-parent households, including one with a migrant background, benefit from free electricity through the initiative. To ensure a fair and transparent selection process, COEN works closely with the municipality to identify and support these households. Despite its potential for lowering vulnerable households’ electricity bills, the initiative faces significant challenges, including grid access constraints and a lack of funding support for including vulnerable groups in energy sharing schemes. COEN remains committed to developing a more equitable and sustainable energy model and empowering vulnerable households in the area by expanding education programs, workshops, and training on energy efficient practices. By integrating community-driven solutions and proactive engagement, COEN aims to break down barriers to clean energy access and empower vulnerable consumers to participate in the energy transition.

Comune di Silvi (IT) | Comune di Silvi, a town of 15,000 residents in Italy, is working to establish an energy community designed to be fully citizen-led, with the local government deliberately taking only a facilitative role. The project receives support of an energy community facilitator and a cooperative association through the EU’s Community for Climate (C4C) project. From the outset, citizens are being engaged through public events to shape the project and ensure genuine ownership. The revenues generated will be directed towards supporting low-income households—potentially by offsetting local taxes—with beneficiaries identified in cooperation with social services. By embedding democratic practices into the initiative, the municipality aims not only to alleviate energy poverty but also to strengthen overall citizen participation and rebuild trust. Having experienced a relationship with citizens that was increasingly characterized by criticism and distance, Comune di Silvi now sees the energy community as a vehicle for fostering more active engagement, shared responsibility, and stronger democratic ties.



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The energy community's first municipal installation on the Civic Centre Las Margaritas (40 kWp) © Getafe

Comunidad Energética Getafe Potencia (ES)

While Spain's self-consumption regulations allow municipalities to distribute renewable energy without forming an official energy community through collective self-consumption, Getafe, near Madrid is taking a more structured approach by supporting the creation of an energy community through the Community Transition Office of the Land and Housing Municipal Company. The Comunidad Energética Getafe Potencia (ES) – established initially as an association with the intention to transition toward a cooperative model - will ensure long-term community participation and governance. The support from the Municipality to the energy community will materialise

through four photovoltaic systems on public rooftops in Las Margaritas, La Alhóndiga, Juan de la Cierva, and Los Molinos districts, amounting to 160 kWp, and generating solar energy to be shared with vulnerable households.

Still in its early stages, the initiative was founded by a group of 15 members. It currently counts 31 members, including individuals and representatives of five neighbourhood associations, the Local Federation of Associations, the Getafe Norte Neighbourhood Association and the Land and Housing Municipal Company. Efforts are underway to map and recruit additional potential participants, aiming for at least 40 members to share energy from the first PV installation, including vulnerable households and citizen-driven organisations. The energy community is committed to full inclusion, ensuring vulnerable households participate as equal members rather than passive beneficiaries. A welcome committee helps integrate new members, and plans are in place for educational activities and collaborations with Social Services to develop financial support mechanisms covering membership fees through a solidarity fund. With the latter they hope to develop a more sustainable and empowering alternative to current municipal aid programs such as direct energy bill support. While partnerships with municipalities can be transformative, public procurement rules and administrative constraints must be carefully navigated to maximise impact. By aligning efforts between the Municipality, Social Services, and the Land and Housing Municipal Company, Getafe aims to establish a replicable, community-driven approach to energy solidarity.



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Founding members of the energy community during the founding act December 2024 © Getafe

Comunitat Energètica La Bordeta (ES) | Comunitat Energètica La Bordeta in Barcelona is an energy cooperative which incorporates energy poverty alleviation and inclusivity as one of its core ambitions. The cooperative was founded in 2021 and currently has around 60 members, 12 of which are civic and social associations active in the neighbourhood. The cooperative operates solar installations on the La Borda and La Diversa housing cooperatives, as well as on industrial buildings.

Through its dedicated Energy Rights Working Group, the community has created a solidarity fund that removes financial barriers for vulnerable households by covering membership fees, capital contributions, and energy-sharing costs. This ensures that those with fewer resources can join on equal terms, with full voting rights, and even access free electricity without being required to contribute anything in return. The initiative is designed to avoid stigmatisation and provide genuine inclusion, supported by training from the Alliance Against Energy Poverty. The initiative is currently being piloted among five households.



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La Bordeta also collaborates with local housing cooperatives, social organisations, and the Alliances Against Energy Poverty to expand its reach and impact. By conducting neighborhood-wide surveys and context assessments, it seeks to better understand vulnerability and tailor its support accordingly. Any surplus is reinvested into social projects in the neighbourhood, reinforcing the principle that the energy transition must benefit everyone, not just those who can afford it.

Coopérnico (PT) | Coopérnico is a Portuguese non-profit cooperative electricity supplier/retailer with 6.300 members that acts as a vital facilitator for community-driven energy projects, providing technical, legal, and administrative guidance to establish socially inclusive energy communities. Through its role as a "one-stop shop," the cooperative leverages national and EU funding to support concrete initiatives like the Telheiras/Lumiar REC, while simultaneously advocating for a more democratic energy system and fairer national policies. In addition, Coopérnico (PT) installs rooftop solar PV systems on charitable institutions and SMEs to enable self-consumption, providing energy at fair prices and freeing up financial resources for delivering services to citizens. Coopérnico's members lend capital to fund these installations, earning a yearly return of 2.5–4% over 10–15 years, while the cooperative maintains and monitors the systems. Electricity produced is consumed by the partner institutions, typically reducing bills by 10–20%. Ownership of the PV system is eventually transferred to them, creating a long-term asset.

Coopérnico also places significant emphasis on social outreach and capacity building through initiatives like its "Energy Cafés," which create inclusive, welcoming environments (often by offering lots of food) for citizens to share lived experiences and gain practical energy-saving knowledge. By partnering with municipalities, senior academies, and local parishes, the cooperative provides personalised advisory services and leverages its "Supporters & Mentors Network" to guide vulnerable households through the complexities of securing public financing for energy-efficient home renovations. Despite its success, Coopérnico's ability to scale these critical social programs remains constrained by a lack of formal legal recognition and dedicated funding, leaving the organisation heavily dependent on time-bound grant projects rather than a self-sustaining business model.

ECLAIRS (FR) | Since 2023, ECLAIRS operates a collective self-consumption scheme that provides reduced electricity rates for vulnerable households. All beneficiaries become member of the association and participate in its governance (though engaging vulnerable members remains difficult). The project is supported by FEDER funding and technical expertise from grid operator ENEDIS and the local government.



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The scheme uses three tariffs:

- BASIC tariff: a fair price for all, covering operating costs.
- SUPPORT tariff: about 10% higher than BASIC, helping subsidise solidarity.
- ECO tariff: about 30% lower than BASIC, reserved for vulnerable households; in 2023, about 50% cheaper than the regulated EDF tariff.¹⁹

The solidarity model thus works by balancing costs between tariffs. However, through the Open Call, ECLAIRS notes that fixed costs and taxes on the electricity bill reduce the benefits of the scheme for (vulnerable) households. Reducing these taxes for vulnerable households would increase the project's impact.

Ecopower (BE) | Through the PowerUp project, the Belgian cooperative supplier Ecopower—which serves over 73,000 members—collaborated with the city of Eeklo to launch a targeted initiative designed to expand access to affordable, community-owned renewable energy for vulnerable households. The city **prefinances a social share** (€250) for participants, which is **repaid through a savings plan** (at about €3/month). As shares in Ecopower are not-project related, participants own a part of all Ecopower installations. The share gives access to energy supply services of the cooperative as well as the right to share in the benefits of the cooperative. To assist participants, an Ecopower staff member and a representative from the municipality are available every Monday at the Eeklo city office, providing step-by-step guidance on joining the project. In the first year, they managed to generate a **reduction of about 300 euros for participants**.

The pilot project, starting with 20 participants and now expanding to 100, initially targeted those dropped by their suppliers and placed on expensive emergency tariffs with a supplier of last resort. However, since 2024 the DSO converted these customers to smart meters with prepayment, limiting access to cooperative suppliers. As a result, the project is now expanding to include former social tariff recipients. To ensure broader access, Ecopower collaborates with SAAMO and other local partners to identify and engage participants, recognising that personalised outreach is crucial.

Challenges include automating the savings plan, addressing late or non-payments with a soft approach to prevent debt accumulation, and overcoming digital exclusion. The cooperative's long-term goal is to integrate vulnerable groups into the energy transition through sustainable, community-driven solutions. While Ecopower, seen over the long term, has been one of the cheapest suppliers, its energy prices are not always the cheapest. This may pose issues for people living in vulnerable situations. This is why, in addition to providing access to cooperative energy prices, eligible participants can receive "social

¹⁹[Énergies du Pays de Rennes. ECLAIRS: Autoconsommation collective Rennes Sud.](#)



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solar panels" installed on their rooftops, financed by Ecopower through third-party funding and a social cooperative fund, further reducing energy costs. For renters, Ecopower has developed an addendum to the rental contract (an agreement between tenant and landlord).

EcoVision (IE) | EcoVision, based in County Tipperary, Ireland, is a not-for-profit, community-led organisation supporting citizen-led renovation and energy upgrades. EcoVision provides a One-Stop-Shop service, leveraging SEAI grants and coordinating contractors to simplify home and business retrofits. Comprising 15 energy communities across Tipperary, Clare, and Limerick, it has retrofitted over 900 homes, securing over €18 million in investments. Their activities are funded through a combination of revenue streams, including EU and national grants, as well as income generated from various social enterprise initiatives they operate.

EcoVision actively tackles energy poverty through initiatives like EU LIFE RENPOWER, the new Retrofit Ready project in the EUJTF territories and the Sláintecare and Engage in Energy projects in collaboration with the Tipperary County Council. With these projects they aim to expand their energy advice and retrofitting services towards vulnerable populations and deprived areas, including through household visits, community and school workshops, energy clinics, and assistance with grant applications. In 2020 Ecovision secured €995,000 from the Just Transition Fund to lead the 'Community Led Just Transition North Tipperary' project, aimed at improving energy efficiency in communities affected by peat plant closures. Through this initiative, they have been retrofitting homes, implementing energy-saving behaviour change programs, and installing community-owned solar PV systems to promote sustainable energy solutions.

While vulnerable households are not directly involved in its governance, the organisation is working to enhance diversity and stakeholder participation, furthering its mission to integrate citizen-led energy efficiency and retrofitting services with social impact.

Energiecoöperatie OostBrabant (ECoOB) (BE) | Flemish energy cooperative Energiecoöperatie OostBrabant (ECoOB) facilitates a self-consumption scheme to the benefit of vulnerable households. The cooperative installed small solar PV systems on the roofs of individual houses, matching the size to the family's energy needs. ECoOB's Zonnebouwer+ project (Sun Builders) focuses on tackling energy poverty by installing solar panels on the rooftops of low-income households, including emergency buyers. In particular, the latter are households who, unable to find affordable rental housing, have purchased inexpensive, often poorly maintained homes. Households benefit from lower energy costs from day one without needing to invest, paying only an €8 monthly fee for



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solar energy use. Over 25 years, they can save between €4,000 and €10,000, depending on energy prices. ECoOB, in collaboration with six municipalities and social services (who identify beneficiaries), funds the installations while ensuring all financial benefits go to the households. This means a lower return on investment for ECoOB shareholders, but a higher social impact for the cooperative. A private guarantee fund safeguards ECoOB against losses while protecting participants. Leo D'Haese, board member of ECoOB, highlights that the project supports local government goals by integrating vulnerable households into the energy transition. This approach is more sustainable than reliance on social tariffs, as it not only reduces household energy costs but also lowers government spending on subsidised energy prices, which often indirectly support fossil fuels.

Enercoop (FR) | In France, cooperative supplier Enercoop, a network of 11 energy communities across France with over 65.000 members and 108.000 clients, established the endowment fund Énergie Solidaire to support energy poverty alleviation. As an energy supplier with a large client base, Enercoop enables customers to contribute through micro-donations, either by rounding up their energy bills or making direct donations via its website. These funds are distributed to local NGOs working on energy retrofit projects for vulnerable households through open calls for project financing. To provide tax benefits to individual donors, Énergie Solidaire was set up as a separate legal entity.

Enercoop also offers direct support to vulnerable customers through phone and email assistance, solidarity tariffs, and accessing government-issued energy vouchers. However, identifying and assisting vulnerable households remains challenging due to limited social expertise, difficulties in assessing energy poverty under official criteria which are deemed too narrow and insufficient, and customer distrust towards a private company requesting personal information. To improve outreach, Enercoop collaborates with social partners and engages in programs like SLIME. The SLIME programme (Service Local d'Intervention pour la Maîtrise de l'Énergie) identifies and supports households facing energy poverty through proactive outreach, home assessments, and tailored interventions. Coordinated by CLER – Réseau pour la transition énergétique, it operates in collaboration with local authorities and social organisations, leveraging funding from the French Energy Savings Certificates (CEE) system to improve living conditions and reduce energy costs for vulnerable households. Enercoop leverages its role as an energy supplier to mutually help them catalogue cases of energy poverty.

Energent (BE) | The "Buurzame Stroom" project in Ghent (2017–2020) demonstrated that energy communities can effectively scale solar access for vulnerable households by combining tailored financing, renovation strategies, and institutional partnerships. To overcome the barrier of high upfront costs for low-income homeowners, the project



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successfully leveraged public "energy loans" that offered longer repayment terms, allowing monthly electricity savings to exceed loan installments. Recognising that solar panels are inefficient on poor-quality roofs, the project pioneered a holistic "total renovation" model, bundling solar installations with insulation and roof repairs. Returns from the solar panels contributed to repayment of the retrofitting and insulation investments. The combination of different types of building improvements also provided access to several government support schemes.

For the rental sector, the project developed specific frameworks to ensure tenants see a net financial benefit from renewable energy. In social housing, they recommended calculating rent adjustments based on actual individual consumption data rather than theoretical usage, ensuring consistent cost savings for tenants. To facilitate the installation of solar panels on private properties rented out as social housing by Social Rental Agencies (SVKs), the initiative developed a standardised calculation model for rent adjustments that ensures net financial savings for tenants while maintaining a viable payback period for property owners. By integrating social support networks, public financing, and technical renovation expertise, Buurzame Stroom established a replicable blueprint for ensuring that the benefits of the energy transition are accessible to those most burdened by energy poverty.²⁰

However, the project also encountered quite some barriers. A key barrier being the lack of financial resources:

"People often assume that energy cooperatives take on projects that aren't economically viable. But we are still a company and need to run profitable initiatives. To address energy poverty, an energy community must either grow large enough to generate surplus profits for such projects (after 10 years, we're still not there) or secure additional funding and support."

- Energent (from submission Open Call)

Energetska Zadruga Zeleni Hrastnik (SI) | An example of community-owned centralised production for self-consumption, as a form of energy sharing, is Energetska Zadruga Zeleni Hrastnik (SI). This energy community was Slovenia's first citizen energy cooperative, established in 2022 and currently counts 30 members. The cooperative is located in Hrastnik, an ex-mining town which saw its social position significantly degraded after the closing of the mine. To ensure that the benefits of the energy transition stay within the community and to lessen exposure to energy market fluctuations, the cooperative took proactive steps. They installed a solar power plant on the roof of the local primary school. The plant supplies electricity to the school, 16 homes, the town hall, a swimming pool, a grocery store, and two local companies. Collectively owned by these

²⁰ [Energent \(January 2020\). Buurzame Stroom. Eindrapport.](#)



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consumers, the initiative is expected to reduce electricity bills by approximately 30% during the initial loan repayment period, with potential savings doubling thereafter.

The project's success is driven by a dedicated core group, including the green NGO Focus and Hrastnik's supportive local government. While these key actors continue to play a leading role in the cooperative's governance, citizen involvement has been growing since the beginning. A bottom-up approach has been used throughout, actively engaging residents through workshops and regular communication, strengthening both trust and a sense of community. This inclusive strategy has not only helped address financial concerns, but it has also ensured that lower-income households can participate. In particular by cooperatively covering their initial contributions (including the €100 membership fee and initial compensation for power supply at €150 per kw of power). Although these mechanisms made the project more complex, social equity was a core value for the cooperative: like many other initiatives, they see community energy as a long term solution to energy poverty.

The initiative's popularity led to plans for a second solar plant on the local health centre, which will provide electricity to the health centre and six households. The project has attracted widespread interest and is inspiring other municipalities to consider similar models.

Energía Bonita (ES) | Energía Bonita, on the Canary Island of La Palma, operates a [Solidarity Fund](#) to cover the initial mandatory share capital of €100 for vulnerable households to join the cooperative. It is also partnering with the Government of the Canary Islands to turn the rooftops of seven educational centres into solar power plants that will supply clean energy to around 700 families.²¹ While the installations are already operational, the next step is to ensure that vulnerable households directly benefit.

Energie Samen (NL) | Energie Samen represents more than 400 energy communities across the Netherlands, many of which carry out a wide range of activities to alleviate energy poverty. These include energy coaching, renovation support, educational campaigns, renewable energy projects, and assistance with accessing government subsidies. While most of these activities were initiated by the community members themselves, as they saw or experienced a need to do so within their local community, Energie Samen aims to empower its members and enhance their impact by offering [capacity building](#), [knowledge exchange](#) and advocacy support. In its Energie Samen Academie communities can find an entire workstream on energy poverty alleviation,

²¹ European Commission, Clean energy for EU islands (25 June 2024). [Government of Canary Islands Partners with Energía Bonita for Solar Panel Installation on Educational Center Rooftops.](#)



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including a step-by-step approach to kick-start their own energy poverty alleviation project.

Ènostra (IT) | Ènostra is Italy's first national cooperative energy producer and supplier, bringing together more than 12,000 members. Established in 2014, it began offering energy supply services nationwide in 2016, including dedicated tariffs for non-profit organisations. In addition to generating and supplying renewable electricity, Ènostra provides households and SMEs with services for energy efficiency and self-production, as well as information and training initiatives designed to raise awareness and combat energy poverty.

Since 2019, Ènostra has operated an internal multidisciplinary team supporting municipalities and local actors in establishing renewable energy communities and collective self-consumption projects, with a focus on inclusivity and addressing local vulnerabilities. Within the SOCIALNRG pilot, the cooperative will assist residents of three cooperative housing buildings in Cinisello Balsamo—covering around 120 apartments and six commercial units—in creating an energy community tailored to local needs and challenges.

FOCUS (SI) | In Slovenia, SOCIALNRG is piloting the creation of an energy community in a multi-apartment building in Ravne na Koroškem, locally known as the “Singles’ Home.” The building, managed by **Stanovanjsko podjetje d.o.o. (SI)**, consists of 71 small units (68 households), primarily occupied by vulnerable groups such as pensioners, workers, young couples, and immigrant families. The building is currently undergoing a full renovation, including thermal insulation and the installation of an 84kW solar power plant, which is expected to cover around 50% of its electricity demand. By integrating renewable energy sources, the project aims to reduce residents’ energy vulnerability and ease financial burdens.

Beyond technical improvements, the pilot also focuses on social aspects and generating broader (energy transition) benefits through the creation of an energy community, with the support of FOCUS (SI). However, current readiness for an energy community is low. Apart from legal and technical barriers the building’s resident community is characterised by weak community ties, high turnover, and limited collective organisation. So early efforts emphasize community-building, trust, and democratic participation. Planned steps include creating opportunities for residents to engage with the housing provider (STAN), establishing a first representative body, and running awareness-raising activities on energy use and production. These measures aim to prepare the ground for future self-



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management, the creation of a legal entity, and stronger resident participation in the governance of their homes.

Goiener (ES) | Goiener, a cooperative with over 18,500 members operating PV and hydropower installations, combines renewable energy production with a strong social mission to tackle energy poverty. Its flagship initiative, Goiener Soziala, was developed by its Energy Poverty Working Group to provide tools, training, and personalised support for households in vulnerable situations. The programme focuses on optimising energy bills, providing energy-saving advice, conducting simple home energy audits, and offering guidance through municipal energy offices, often in partnership with municipalities or regional authorities. Drawing inspiration from the EU-funded POWERPOOR project, Goiener also trains social workers, municipal staff, and local organisations to better identify, advise, and accompany households experiencing energy poverty.

Beyond direct support, Goiener plays a key role in capacity building across society: it trains citizens, social entities, and other energy communities on energy efficiency, collective self-consumption, and inclusive governance, helping them replicate social programmes and even set up local energy poverty offices. Collaboration with partners such as the social services, local associations, and food banks further extends its reach to the most vulnerable groups. Goiener stresses that addressing energy poverty requires not only financial resources but also “human capital” — motivated, trained people capable of activating and supporting their communities.

Hyperion (EL) | Hyperion, a Greek energy community with 128 members, primarily focuses on renewable energy generation for collective self-consumption, as well as educational and community activities. They currently operate a 500 kWp solar project. To combat energy poverty, Hyperion provides free energy to vulnerable individuals through a virtual net-metering scheme, as allowed by Greek law. They have also developed an energy poverty toolkit, which includes materials like insulation tape and an energy efficiency advice pamphlet, and have established a working group to create further initiatives. Currently, the beneficiaries of these efforts include 9 energy-vulnerable households (referred through the social services of two municipalities), one social kitchen, and a migrant cultural centre. While these beneficiaries are not formal members, they are aware of the community and can engage with members if they choose.



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Hyperion site visit © Nicoletta Zarifi

The energy poverty alleviation activities are funded through a solidarity levy, contributed by the members themselves (one-time fee which members paid as a top up to their regular shares in the collective solar park). A challenge faced by the community is that all members, including the vulnerable households who are not official members, must be clients of the same energy supplier. Requiring vulnerable households to change supplier could be seen as a risky move.



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Innovacoop (IT) | Innovacoop, a company of Legacoop Emilia Romagna, the regional cooperative network of Legacoop, and partner in the SOCIALNRG project, plays a key role in fostering energy communities by promoting their creation, securing funding, and providing long-term support. For Innovacoop, energy communities are a powerful tool for driving citizen engagement in the energy and ecological transition, fostering solidarity, and ensuring democratic resource management. Through initiatives like RESPIRA, a crowd-investing and service platform aiming to support the establishment of energy communities, they offer technical and financial assistance to citizen groups, businesses,



and public entities. Innovacoop also strengthens energy community networks by organising awareness-raising events, advocating for favourable policies at the national level and promoting partnerships with key stakeholders including service operators, trade unions and other types of cooperatives, such as housing cooperatives. Operating as a network organisation spanning multiple sectors, Innovacoop brings together different types of expertise.

© Innovacoop

In 2024 they supported the citizen-led renovation pilot of Castello Green House. And as part of the SOCIALNRG project, they are partnering with Ènostra to address energy poverty in a social housing neighbourhood in Cinisello Balsamo (Milan).

Karditsa Energy Community (ESEK) (EL) | In Greece, the Karditsa Energy Community (ESEK) (EL) in a collaborative effort with the municipality and a local school, launched a CH&C initiative with an action to address energy poverty. Under the slogan “Don’t throw away your fuel”, teachers and students from the school collected residual coffee, which was then transformed into pellets by ESEK and donated to the municipal service to support vulnerable families. They use the revenues to expand their heating and cooling initiative, and organise local awareness-raising activities such as the organisation of renewable energy festivals.



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Klimaan (BE) | Klimaan, an energy cooperative and SOCIALNRG partner from Belgium, leveraged citizen investments from financially well-off members to fund solar panel installations on 197 social housing units of **Woonland (BE)** (a social housing provider and also partner in SOCIALNRG). The initiative broadens accessibility of renewable electricity and ensures lower energy costs for vulnerable residents. While they hope to share surplus energy with social housing residents without solar panels, current costs associated with energy sharing make this challenging. Klimaan is also renovating 71 vacant homes to be leased as social housing through a collaboration with Woonland and Pandschap Rivierenland. They are also conducting a feasibility study to set up a district heating network in a social housing neighbourhood as part of the SOCIALNRG project.



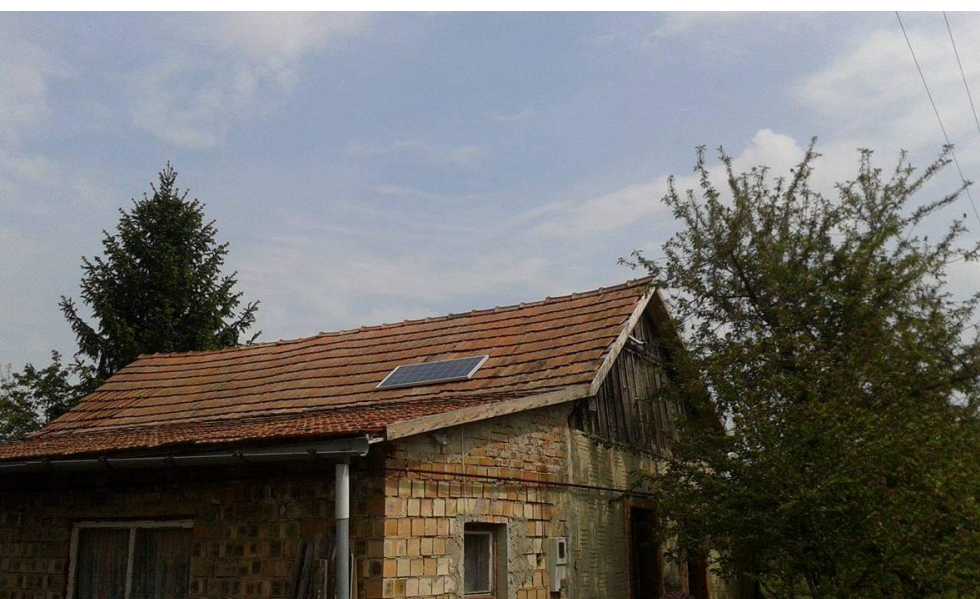
© Klimaan

In addition Klimaan promotes sustainable mobility and accessibility within social housing neighbourhoods. They have electric car-sharing services ready to be deployed and already provide four electric bikes for volunteers, completing around 200 rides monthly to help less mobile residents reach their destinations. Finally, Klimaan collaborates closely with [SAAMO](#), including on the [Papillon project](#), offering sustainable household appliances for rent, ensuring that social tenants can access energy-efficient devices. This partnership is crucial for fostering dialogue, co-creation, and trust with the communities they aim to support.



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Residents currently benefit, without being an owner or investor – and, in this case, without being a member. Such flexible approaches are particularly important for low-income households, as they expand access to renewable energy and related services even for those unable to contribute financially. However, this often comes with limitations in terms of decision-making.



© Aranka Rostás

Lightbringers Foundation

(HU) | The Lightbringers Foundation in Hungary demonstrates how marginalised communities, cut off from the grid and abandoned by the state and commercial energy players, can take charge of their energy needs through a community-driven model.

The project addresses energy poverty among impoverished Roma families, installing affordable solar units. The project brought immediate energy relief

to 14 of the most disadvantaged households in Mária Telep by providing solar-powered systems, financed through crowdfunding and donations, that restored access to electricity. Each unit, costing between €5,000–€10,000, includes a solar panel, battery, control unit,

and LED lighting, and supports up to 300 watts of essential electrical use, meeting the basic needs of families. By training local volunteers, particularly women and girls, to maintain the systems, the initiative builds technical skills and long-term resilience. So far, it has supported 40 families, sparked national discussion on energy poverty and Roma inclusion, and serves as a model for grassroots, inclusive energy solutions.²²



Aranka Rostás

²² [FEDARENE \(16 April 2025\). Solar Panels for the residents of Mária Telep settlement in Baks.](#)



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Llobregat Energètica (ES) | Llobregat Energètica, an energy cooperative in Sallent, Barcelona, has made tackling energy poverty a core objective. Still in its early stages, the cooperative has launched the Social Area to drive its social goals forward. This initiative creates open communication spaces to engage with diverse groups, providing tailored advice on reducing energy bills, implementing energy efficiency measures, and accessing government aid. At the same time, the Social Area helps Llobregat Energètica better understand the specific needs of vulnerable communities and develop appropriate responses. So far, they have collaborated with women's associations and organisations supporting people with disabilities and are reaching out to youth organisations and neighbourhood associations:

We contacted each of them personally to get to know them and offer them a personalised presentation of the cooperative. Some of the topics we addressed in the presentation include energy transition, collective self-consumption communities, and the tangible and intangible benefits of participation. In all of them, we emphasise the importance of building a diverse, inclusive, equitable and empowered community. – Sandra Bassallo Puig, Llobregat Energètica



Picture taken during the meeting between Llobregat Energètica and representatives of the community of people with disabilities © Llobregat Energètica



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Minoan (EL) | Minoan Energy Community, based in Crete, has developed a solidarity-driven model to tackle energy poverty through virtual net metering. With funding from its members and the regional authority, it built a 405 kWp photovoltaic plant that provides free electricity to over 100 households and businesses for 25 years. Among these beneficiaries are about 33 low-income families, including earthquake victims and large households, who pay nothing to participate yet see direct drops in their energy bills. While these households do not become full cooperative members, they benefit from a dedicated support scheme designed by the community. Plans are underway to extend support to at least 15 more families through a second PV project.

Since its founding, Minoan has grown to around 1,300 members, including citizens, municipalities, associations, and SMEs. Its Articles of Association place solidarity and the fight against energy poverty at the heart of its mission, making equal access to renewable energy a priority. However, despite Crete's rich renewable potential, Minoan faces regulatory barriers: grid space is scarce and dominated by large corporate players, while licensing procedures lack transparency. The community continues to advocate for fairer rules, priority for local initiatives, and stronger collaboration with municipalities, chambers, and social services to ensure both resilience and inclusivity in Crete's energy transition.

Mirafiori REC (IT) | in Turin's Mirafiori district, a fragile neighbourhood with strong post-industrial characteristics, Mirafiori REC incorporates the ambition to provide a collective response to the needs of vulnerable households in the area (about 900 families identified so far). While currently still in its early days, the project has already identified a "priority barrier" among vulnerable groups: participation in the REC or its activities is not seen as an urgent priority for vulnerable groups. It hopes to overcome the challenge of community engagement by setting up collaborations with social workers and adapting the successful community garden model of **Orti Generali** to energy production. By leveraging this existing, tangible community space, the project seeks to broaden community development from "self-production of vegetables to self-production of energy." This approach is intended to overcome the non-material nature of an energy community – often creating the perception among citizens as energy being too distant, abstract and too complex.

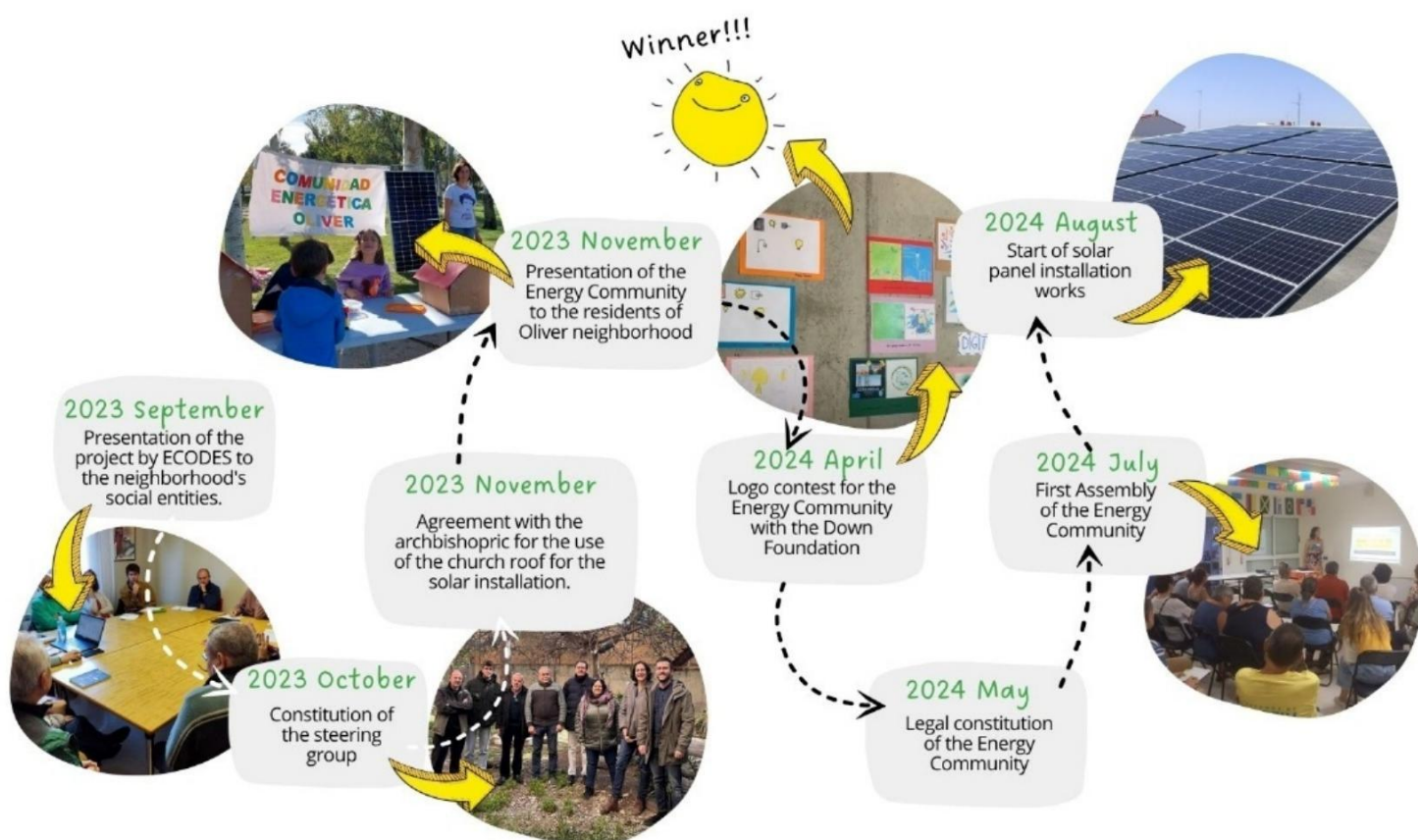
Oliver Comunidad Energética (ES) | For Oliver Comunidad Energética, collective challenges require collective responses. People should feel comfortable relying on each other for help and support. Oliver CE operates in one of the most stigmatised neighbourhoods with the highest rate of people at risk of social exclusion in Zaragoza. The energy community was established with a €100,000 private-sector grant. This funding



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allowed for the development of the legal and social structures necessary to create the energy community, as well as the installation of solar panels. The project was initially conceived by Ecodes, a Spanish organisation focused on the intersection of social and environmental justice. Seeking to leverage community solar projects as a tool to combat energy poverty, Ecodes was able to bring this idea to life after securing an award in 2023. Despite significant challenges, Oliver CE has successfully fostered community involvement through social events, community projects, and initiatives that promote interaction and collaboration. Given that many residents are not accustomed to participating in collective initiatives due to trust issues or language barriers, building a strong sense of belonging was key :

bringing people together was maybe the most challenging aspect for us, but it's also one of the most rewarding outcomes.²³



© OliverCE

²³ [REScoop.eu](https://rescoop.eu) (20 February 2025). Success story – The pride of the neighbourhood: the transformative power of community energy.



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Membership involves a one-time €20 fee, which provides equal rights and voting power, while an optional €42 annual fee grants access to energy from the community's photovoltaic panels, reducing average energy bills by around 30—equivalent to savings of €130–180 per year. Social bonus recipients are given priority access to the community's self-consumption scheme. Additionally, Oliver CE supports engagement through social events, workshops, and information points on energy savings and financial aid, promoting broad and inclusive participation. In addition to offering accessible membership options, partnerships with local organisations have played a key role in building trust and ensuring the project's success. The Parish contributed rooftop space for solar panels, while ECODES, local cooperatives, and neighbourhood associations provided technical expertise and outreach support. These partners remain structurally engaged through the advisory board and governance roles, creating a strong and diverse coalition of support.



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OurPower (AT) | In Austria, energy cooperative OurPower connects renewable energy producers and consumers through an online peer-to-peer marketplace. Producers, after joining with a €100 share, can easily register their installations and sell electricity directly, while consumers are matched to suitable producers based on location and household size, ensuring a 100% renewable Austrian energy mix at competitive rates. The model ensures stable pricing for producers and affordable rates for consumers. Recently, a “family and friends tariff” was introduced, enabling producers to offer electricity at reduced prices.



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Although not designed specifically for vulnerable households, these lower rates could be especially beneficial for them and, over time, help the cooperative expand its social impact.

Repowering London (UK) | Repowering London is a non-profit organisation founded in 2013 that helps communities across London take ownership of their energy future. Building on early successes like the Brixton Energy Solar cooperatives, it develops and supports community-owned solar projects on social housing estates, schools, and community centres. Beyond clean energy generation, Repowering London focuses on education, training, and mentoring, giving local residents—especially young people and those from underrepresented groups—the skills and confidence to engage in the energy transition.

The organisation places inclusivity and social justice at the core of its mission. It works to tackle energy poverty by helping households lower energy bills and improve housing conditions, while ensuring that the financial benefits of community-owned projects flow

back into local areas. Repowering London has launched over 10 community energy co-operatives and installed more than 1 MWp of rooftop solar. With ambitions to deliver 5 MW of community energy by 2030, its model demonstrates how grassroots, community-led action can drive impactful change across disadvantaged communities.



One of Repowering London's Community Leads © Joe Burrows

To this end, Repowering London works closely with local representatives and grassroots groups—such as food banks, community kitchens, and gardening initiatives. Additionally, they recruit local residents as Community Leads who help expand the cooperatives while ensuring community voices, needs, and aspirations are genuinely reflected. Many people in precarious situations tend to self-isolate, but Community Leads are able to build trust



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Community-owned solar PV on East Ham library © Joe Burrows

and reduce barriers to participation by drawing on their local knowledge and existing personal networks. Their presence makes support feel more accessible and less intimidating, turning abstract initiatives into tangible, neighbour-to-neighbour support. In doing so, Repowering London not only builds more inclusive and representative energy cooperatives but also nurtures stronger, more resilient communities.

In 2024 Repowering London published a **Participatory Toolkit for Inclusive Community Energy Co-operatives**. It offers practical methods and resources to engage a wide range of underrepresented groups with energy cooperatives, ensuring that everyone can access the benefits of local energy projects and play an active role in driving a just energy transition. The toolkit is based on participatory research and co-design conducted in North Kensington and Newham, which informed the development of new membership pathways adapted to local contexts.



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Repowering London also explores alternative forms of engagement—such as nominal fees, time contributions, or other commitments—encouraging a deeper consideration of value beyond monetary exchange: “we had to think deeply about types of value exchange that go beyond the monetary”²⁴. Repowering London is now using these insights to inform upcoming community share offers and membership campaigns, with some co-designers already joining their local co-operatives. In this way, Repowering London aims to embed inclusive membership structures at the heart of its work.

Finally, Noticing that most advice on energy efficiency and environmental upgrades focuses on single-family homes, yet half of all London households live in flats, **Repowering London (UK)** has developed a [toolkit and service](#) to help landlords, leaseholders, building managers and retrofit professionals upgrade blocks of flats. In 2023-24, Repowering London partnered with the Confederation of Cooperative Housing and Future Climate to pilot the service at six blocks of flats across London. It has since gone on to work with several other blocks of flats and service development is ongoing.

REScoop Vlaanderen (BE) | In the wake of the EU-wide energy crisis, REScoop Vlaanderen — the Flemish Federation of Citizen Energy Cooperatives — observed a rising commitment among its members to strengthen their social impact. To channel this momentum, the Federation established a Social Impact Working Group in 2023. The group meets regularly, offering a platform for cooperatives to exchange experiences, present projects tackling energy poverty, and explore how community energy can actively contribute to a socially just energy transition. These sessions also invite external experts to provide fresh perspectives on specific themes. By building alliances between cooperatives, governments, and civil society, the Federation positions itself as a driving force for a fairer, more inclusive energy system in Flanders.

Sociedad Cooperativa Eléctrica La Corriente (ES) | In Spain, Sociedad Cooperativa Eléctrica La Corriente, a cooperative renewable energy retailer from Madrid with over 1000 members, actively supports the development of energy communities in the area through awareness-raising initiatives and advocacy for supportive policies. To promote inclusivity in energy communities, La Corriente launched the [InclusivEC Awards](#) with European funding from the Accting project. The Awards recognise and promote energy communities in Spain that actively include vulnerable groups and address energy poverty through innovative projects and social justice initiatives. In its first edition, nine initiatives from diverse regions—ranging from urban neighbourhoods under development pressure to depopulated rural towns and an island in Galicia—demonstrated that energy

²⁴ Repowering London - [Participatory Toolkit for Inclusive Community Energy Co-operatives](#), p. 9.



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communities can adapt to different local needs while promoting sustainability and citizen empowerment in the energy transition. The first edition of the Award (2024) was won by CE Arroyo Alumbra, a cooperative dedicated to tackling rural depopulation while integrating gender perspectives and fostering community education. The €2,500 prize will fund materials for energy efficiency courses at local schools and support specialised training for cooperative members, reinforcing their commitment to sustainability and education.²⁵

Som Energia's (ES) | Som Energia's Flux Solar is a service that allows members with solar panels to make the most of their surplus electricity. When panels generate more than is compensated under Spanish law, the excess is converted into virtual credits called *Sols* (1 € of surplus = 0.8 Sols). These Sols can then be used to reduce almost every part of the electricity bill—consumption, fixed charges, taxes, and more—allowing bills to be reduced to zero, with unused Sols rolling over for up to five years. The remaining 20% of surplus value goes to Som Energia to cover management costs, but a portion is also dedicated to financing solidarity projects, ensuring that the system not only benefits solar producers but also supports wider social initiatives.

In addition to its Flux Solar service, Som Energia funds energy poverty initiatives through small voluntary contributions added to members' energy bills. The resulting solidarity fund is partially (about 5-15%) used to support organisations working to combat energy poverty.

SunSud (BE) | SunSud is an energy sharing project in a multi-apartment social housing building in Brussels, where solar PV was installed by the housing provider, Foyer du Sud, in 2020. The installation first supplies the building's communal electricity needs, with surplus generation made available to participating tenants at a significantly lower and more predictable price than conventional electricity tariffs. Participation is voluntary, does not require a deposit, and is facilitated through smart meters and a relatively simple participation agreement. In 2022, solar generation reduced communal electricity costs by around €4,000, while participating households could achieve additional annual savings.

A distinctive feature of SunSud is its co-creation and participation model. Rather than designing the energy sharing scheme for residents, Foyer du Sud, supported by partner organisations, worked with a core group of tenants to shape its practical design, including how surplus electricity would be allocated, how residents would receive information, and how the scheme would be managed. Tailored workshops, resident ambassadors, door-to-door outreach, and trusted intermediaries helped build confidence around unfamiliar technologies and overcome mistrust and administrative barriers. A residents' committee

²⁵ [InclusivEC - Comunidades Energéticas Premiadas 2024.](#)



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continues to facilitate communication, organise meetings and information sessions, and oversee aspects of the project. The experience demonstrates that with tailored engagement, trusted relationships, and capacity-building affordable energy sharing in social housing can be combined with meaningful resident participation without setting up an official energy community as a distinct legal entity. For a small energy sharing or collective self-consumption initiative, the effort to establish and manage an official energy community may be disproportionate to the scale and expected benefits of the activity (see above).

Telheiras/Lumiar REC (PT) | Telheiras/Lumiar REC is an energy community in Lisbon's Lumiar Civil Parish, one of the most populous civil parishes in Lisbon municipality, with 47,000 inhabitants and with persisting and deep-seated socio-economic inequalities in its territory. Telheiras/Lumiar REC was established to promote local renewable energy generation, democratic energy management, and energy poverty alleviation. The initiative is led by the Lumiar Parish Council and the Local Partnership of Telheiras - a community network of local authorities, social support institutions, and various associations representing parents, cultural groups, retirees, disabled individuals, and residents – and established with technical support support from the EU Energy Poverty Advisory Hub, Coopérnico, and CENSE NOVA-FCT.

Currently composed of 16 members, Telheiras/Lumiar REC operates a 7.15 kWp solar PV system installed on a public building, with electricity shared among its members, including three energy-poor households (currently mostly elderly with low-income/pension). These households, identified and engaged by the local government and social support organisations, benefit from waived entry fees and reduced annual costs while maintaining equal voting and participation rights within the community. A second solar PV system of 25.74 kWp is already installed, with licencing underway to expand participation to 60 additional households, small businesses, and condominiums, including 6-10 more families experiencing energy poverty. The energy community follows a solidarity-based financing model where the local government and other members contribute to covering the costs for vulnerable participants, ensuring inclusivity without compromising financial sustainability.

Upfront PV installation costs were covered by funding from the DUT Urban Doers Grant and the Sun4All project, with REC membership fees providing a reimbursement of the investment. The local government, alongside NGO partners, played a crucial role in securing public rooftops, facilitating licensing, and actively identifying and engaging vulnerable households in the initiative. Portugal faces severe energy poverty challenges, with a high percentage of the population unable to heat their homes adequately. By integrating social support mechanisms into its governance, Telheiras/Lumiar REC seeks to



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combat these inequalities by ensuring nearly 20% of its generated solar energy directly benefits vulnerable families. The project is also dedicated to raising awareness about energy efficiency, reducing social exclusion, and strengthening community participation, making it a model for inclusive and citizen-driven energy transitions. In 2024, the energy community published its *Practical guide: Development of renewable energy communities by citizens, associations, and local governments - The example of the Telheiras/Lumiar REC*, leading the way for other energy communities to follow its inclusive model.



The Lumiar Parish Council has been actively involved in every phase of the project and has taken on a wide range of responsibilities, including participating in the REC coordination group, liaising with public and private entities for licensing, promoting the project through communication channels, participating in conferences and technical meetings, and pursuing funding and international collaboration opportunities. The social outcomes of the project were a key motivation for the Council's decision to join the project:

(...) promoting sustainability and the environment has been an important focus for the Lumiar Parish Council. This is a thematic area in which vulnerable populations are very often excluded from projects and programs, and their involvement is crucial, both for the importance of gaining more knowledge and adopting good practices, and as beneficiaries of the positive impacts these types of projects have.

- Lumiar Parish Council (Open Call Submission)



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Members of the Telheiras/Lumiar REC © Associação Viver Telheiras

UKEN (CZ) | In the Czech Republic, energy communities are still in the early stages of development, with most projects focused on navigating new legislation around energy sharing and setting up viable business models. Despite these challenges, there is a clear ambition among several initiatives to address energy poverty in the future. A key opportunity is found in building on the experience of *energy coordinators*, who have already been working with vulnerable households to implement energy renovations measures subsidised by the state. These coordinators enjoy established trust in their regions, which can serve as a bridge to involve low-income households in emerging energy communities.



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UKEN, the national network, plays a central role in supporting this transition by lobbying for better legislation, facilitating knowledge-sharing among communities, and helping municipalities and cooperatives access subsidies for feasibility studies and project development. While most current projects are municipality-led and still technically focused, there is growing recognition that linking energy communities with the expertise of energy coordinators could make them powerful tools for tackling energy poverty. The ambition exists, even if implementation will take more time.

Westmill Sustainable Energy Trust (WeSET) (UK),| In the UK, Westmill Solar together with Westmill Wind fund an independent charity called Westmill Sustainable Energy Trust (WeSET), which promotes the deployment of sustainable energy through arts, education and energy projects. The fund is financed through surpluses generated through running community energy services and activities. After covering operating costs and providing for the development of the cooperative, surpluses are shared between interest payments to members (80%) and funding community activities (20%). Westmill Solar also runs a grant scheme to fund projects and activities around climate change and in line with the cooperative principles. Last year they offered a total of £40,000 to 10 different projects, all of them in Oxfordshire or within 25 miles of the Westmill site, as this is one of the requirements to apply. For example, Oxfordshire-based mental health charity Restore received £5,000 to install rooftop solar PV on two of their working sites; West Oxfordshire Community Transport Limited, a charitable society that operates daily bus services in the area, received £2,495 to research the impact of purchasing and using non-fossil fuel vehicles; and Oxford Children's Book Group was granted with £1,000 to organise school visits with authors whose books focus on tackling climate change.

Women in Energy Transition (WET) (ES) | Women in Energy Transition (WET) (ES), a Spain-based network of women working across the energy sector, has placed energy poverty at the core of its mission. WET, in collaboration with the *Fundación de Energía Responsable* (Responsible Energy Foundation), a non-profit organisation specialising in the fight against energy poverty, has developed and scaled the Energy Bank project, an initiative inspired by food banks, that aims to facilitate energy access for vulnerable groups. The project allows companies/energy players to donate unused kilowatt-hours or savings certificates as part of their corporate social responsibility commitments. This initiative has already implemented several pilot projects in Spain.

Looking ahead, WET plans to integrate and promote energy communities into this system, also allowing them to contribute excess generation to the Energy Bank. Donations are managed through a foundation (replicable methodology), so that donating companies can



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benefit from tax relief. This would allow energy communities that do not yet have vulnerable households among their members to provide support to families in need — a feature not yet implemented but central to the model's future vision.



The Energy Bank Methodology © Fundación Energía Responsable and WET-Women for Energy Transition

WOW Wageningen Cooperative and Warmtebedrijf Oost-Wageningen B.V. (WOW) (NL) | In the Netherlands, residents of the Benedenbuurt in Wageningen came up with the idea for a local district heating network during a neighbourhood climate event in 2016. This resulted in the establishment of WOW Wageningen Cooperative and Warmtebedrijf Oost-Wageningen B.V. (WOW). The heating company is jointly owned by the WOW cooperative and the Municipality of Wageningen (two-thirds ownership), and energy provider Kelvin B.V. (one-third ownership). This set up allows heat supply (through Kelvin's supplier license) while ensuring local influence and resident participation, as every connected household (whether home-owner or tenant) will automatically become a cooperative member and will thus hold decision-making rights in the organisation. Others can also join the cooperative and actively participate in the decision-making by paying a €10 annual fee.



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From the outset, Woningstichting Wageningen, the local housing corporation, played a key role in supporting the project with financial and technical assistance. As a provider of affordable and sustainable housing for those facing financial or social challenges, it aims to transition its social housing units away from natural gas while keeping costs manageable for tenants. To encourage participation, Woningstichting Wageningen will cover connection fees, offer discounts on fixed heating costs, and will make necessary home modifications for electric cooking without increasing rent. With this approach they hope to create a net financial benefit. Tenants were personally visited to ensure they had all the necessary information before deciding, leading to a 83% approval rate among social housing residents. The district heating network is still under development and will eventually supply 90% of all households in the neighbourhood, including 83% of private homeowners and all social housing units.

However, despite these technical and financial successes, the project struggled to translate that support into active tenant participation in decision-making, as residents often deferred to the housing provider rather than engaging directly with the energy community. This outcome underscores a critical nuance: while institutional partnerships effectively deliver material benefits and reach vulnerable groups, they do not automatically guarantee the democratic involvement or empowerment that defines long-term community energy resilience.



Benedenbuurt in Wageningen © WOW Wageningen



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Wattnu's (NL) | Wattnu, the energy cooperative of Gooise Meren, employs a relationship-centered strategy to combat energy poverty by deploying "energiebuddy" and "klusser" programs. These initiatives utilise trained volunteers to visit low-income households in poorly insulated homes, where they install immediate, practical measures—such as radiator fans, draft strips, and appliance upgrades—while providing personalised guidance. By emphasising peer-to-peer outreach, Wattnu builds long-term trust that allows them to move beyond "one-size-fits-all" solutions, instead tailoring interventions to the unique circumstances of each household. They integrate their efforts with the National Insulation Program and the Local Insulation Approach, facilitating a pathway for low-income homeowners to access structural, energy-efficient home renovations.

However, Wattnu acknowledges that traditional engagement methods often fail to reach specific demographics, such as busy families in their 30s and 40s or non-native speakers. To address this, they designed a creative educational program featuring a traveling exhibition for primary and secondary schools. Through the narrative of two characters, Sola and Seb, the exhibition traces the history and future of energy systems from 1880 to 2050, effectively using children as ambassadors to raise awareness and trigger energy-conscious conversations within their homes. To better serve non-native speaking communities, they collaborate with the municipality, the Alliance for an Inclusive Energy Transition, and various social organizations to refine their outreach tactics.



Finally, Wattnu leverages its network of over 100 volunteers and nearly 2,000 members to scale

its impact through formal partnerships with social housing corporations. By exploring collective solar PV projects for housing complexes, they aim to lower tenant utility bills without increasing service charges, ensuring the benefits of renewable energy remain affordable. This multi-layered approach—synthesising technical fixes, grassroots trust-building, and strategic institutional partnerships—establishes Wattnu as a leading model for balancing immediate energy poverty alleviation with the pursuit of a socially inclusive energy transition.



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ZuidtrAnt (BE) | ZuidtrAnt is a cooperative society with a social purpose based in Antwerp, Belgium. With 1,300 members, a team of volunteers, and paid staff, they finance and manage initiatives such as solar energy generation, home renovations, and educational workshops on energy savings using citizen investments. Prioritising inclusivity, they actively collaborate with social welfare organisations, social housing providers, and non-profit organisations committed to a just, sustainable and climate-neutral society. Part of their annual profits from solar projects, green certificates and energy injections, for example, fund social or climate-impact projects, selected by the members at the General Assembly. In 2021, ZuidtrAnt allocated €2,500 to De



Woongenoten, a citizen-led initiative addressing the shortage of affordable rental housing for low-income individuals in the southern region of Antwerp. De Woongenoten raises capital to purchase and renovate homes, which are then rented out in collaboration with social welfare organisations to those struggling to find housing. ZuidtrAnt supports them with renovation advice, guidance, and funding for energy-saving measures to improve efficiency in these homes.

© Zuidtrant cvso

In 2019, ZuidtrAnt launched ZuidtrAnt-W to expand its impact through district heating projects like Warmte Verzilverd, an initiative in collaboration with Ecopower and Kelvin Solutions. The district heating networks repurpose excess industrial heat to provide stable, affordable heating and hot water to buildings in the neighbourhood, including social housing initiatives.



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5 Conclusion

This mapping of over 60 energy community initiatives has identified a diverse range of business models, approaches, and emerging practices aimed at promoting inclusion and alleviating energy poverty across Europe. The findings confirm that energy communities have significant potential to contribute to energy poverty alleviation, but inclusivity is neither automatic nor guaranteed by their organisational model. Lower energy costs, financial returns, and participatory governance do not necessarily translate into meaningful inclusion. Upfront investment requirements, membership fees, administrative barriers, and limited access to information can prevent households experiencing vulnerabilities from joining. Similarly, formal participation rights may not be sufficient when individuals lack the time, confidence, or resources to engage effectively in decision-making. Financial benefits can also disproportionately favour those with the capacity to invest.

The mapping suggests that **more inclusive approaches require a deliberate combination of affordable energy access, energy efficiency and renovation services, tailored advice, and social support, alongside participation that is embedded in the design and infrastructure of the energy community rather than added as an afterthought to the technical model.** Vulnerable households should be recognised not only as energy consumers or beneficiaries but also as potential members, decision-makers, employees, and trainees. Business models and governance structures should therefore be designed around the lived realities of diverse groups, incorporating low entry barriers, accessible participation mechanisms, and targeted support. This requires consideration of the different financial, social, and practical barriers faced by groups experiencing vulnerability, including those related to age, gender, disability, ethnicity, nationality, and other dimensions of inequality.

However, many practical, structural and institutional hurdles persist. Providing discounted energy, energy audits, renovation support, or personalised assistance can increase the financial pressure on energy communities. Many energy communities pursuing social goals become dependent on time-bound grants, which are often inaccessible, administratively complex or prone to corporate capture. Together with the volunteer-based nature of many initiatives, it can be daunting for those involved to move from social ambitions written on paper to social impact. Households, on the other hand, need the confidence, information and support to participate. Practical, linguistic, physical and financial barriers need to be eliminated to create safe spaces where vulnerable households can get a sense of belonging.



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For the social housing context, the report indicates that housing provides a vital opportunity to scale inclusive energy communities by utilising housing associations as aggregators and asset providers who can bundle renewable installations with deep energy-efficiency retrofits and direct engagement of residents. Energy communities can help residents overcome common barriers like individual roof ownership and high upfront investment to participate in the energy transition, while providing a platform for decision-making and co-creation. However, this sector faces significant challenges, including an "agency gap" where tenants may defer to housing providers rather than directly engaging in democratic participation and legal unclarity of how to set up or get involved in an energy community as a resident of a multi-apartment building.²⁶

Addressing these challenges requires **a stronger enabling environment and a more explicit public commitment to inclusive energy community models**. Member States should support energy communities through targeted financial and technical assistance, capacity building, and accessible administrative support, while establishing safeguards against corporate capture and ensuring that community ownership and democratic governance are preserved. Formal inclusion mechanisms, meaningful partnerships with municipalities, housing providers and social organisations, and sustained engagement with vulnerable households – as decision-makers and co-creators - can help embed social objectives within the core operations of energy communities.

Existing and emerging funding opportunities, including the **Social Climate Fund and the Just Transition Fund**, offer important opportunities to strengthen the financial foundations of energy poverty alleviation initiatives. The planned use of Social Climate Fund resources to support energy communities in countries such as Poland and Bulgaria illustrates how national programmes could help scale locally rooted solutions. Similarly, the Just Transition Fund could support energy sharing, citizen-led renovation, and technical assistance in regions undergoing structural change. To maximise the impact of these instruments, Member States should ensure that energy communities, municipalities, and national federations have the capacity to access and effectively deploy available funding. Innovative financing mechanisms, including community and green bonds where appropriate, could further support investment and broaden participation.

Ultimately, **there is no single business model that guarantees inclusion or effectively addresses energy poverty in every context**. Rather, the findings point towards the importance of adaptable, locally grounded approaches that combine appropriate energy services with inclusive governance, strong partnerships, and sustained institutional

²⁶ [European Court of Auditors. Special Report \(10/2026\): Energy Communities – Potential yet to be fulfilled.](#)



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support. Energy communities must be willing and able to coordinate diverse members, manage shared resources, and align financial sustainability with social objectives. But it requires a fundamental re-design of the energy system as a whole to transition from successful, localised pilots, to durable, institutionalised support networks, where inclusion and vulnerability become central design parameters. By placing vulnerable households at the centre of these efforts and ensuring that inclusion is embedded in both organisational practice and public policy, energy communities can evolve into resilient, community-driven models that expand access to the benefits of the energy transition, regardless of one's financial or social starting point, while strengthening local ownership, participation, and social equity.



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The SOCIALNRG project has received funding from the European Union's LIFE programme under grant agreement No 101167579.



Funded by the European Union. Views and opinions expressed are however those of the author(s) only and do not necessarily reflect those of the European Union or European Climate, Infrastructure and Environment Executive Agency. Neither the European Union nor the granting authority can be held responsible for them