

A photograph of a man with a beard and a dark jacket pointing towards a building with a corrugated metal roof. He is standing on a paved area and talking to two women who are seen from the back. One woman is wearing a grey textured jacket and the other is wearing a grey textured jacket and dark pants. The background shows a white wall and a window. The image has a dark teal overlay.

**Are renewable
energy communities
a vehicle to mitigate
the energy crisis and
lift people out of
energy poverty?**

Collaborative briefing

March 2023



This briefing was prepared by 10 EU-funded projects working on the topics of energy communities and/or energy poverty and it looks at how the two topics actually relate.

The briefing provides some answers and policy recommendations to the question:

“Can renewable energy communities be leveraged as a vehicle to mitigate the energy crisis, with the ability to lift people out of energy poverty? If so, how and under which conditions?”.

The briefing targets various stakeholders who could use its inputs and examples to draft future EU, national and local policies, and all people interested in the topics.



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**Preliminary
concepts**

Energy communities

Energy communities are non-commercial entities that organise collective ownership around a variety of activities in the energy sector. They are based on open and voluntary participation and are under effective control of citizens, local authorities or smaller businesses whose main activities do not lie in the energy sector. [1] Their purpose is to provide environmental, economic or social benefits to their members or the local community rather than generate financial profits. The energy community concept is defined in the [Renewable Energy Directive](#) (RED II) and the [Internal Electricity Market Directive](#) (IEMD), which set a regulatory framework for renewable energy communities and citizen energy communities in the EU.

Energy communities may engage in the generation, distribution, supply, consumption, aggregation, energy storage, energy efficiency services / charging services for electric vehicles, or provide other energy services to their members or shareholders. In this briefing, we primarily focus on RECs (Renewable Energy Communities) and CECs (Citizens Energy Communities). Other concepts with a broader scope, including more general collective energy actions, are not in primary focus (yet mentioned as they can also positively impact energy justice/energy poverty alleviation).

Energy poverty

The number of countries that recognize **energy poverty** formally in legislation or policy is rising. Yet, the majority of Member States do not have a formal definition, and many policymakers struggle to grasp the multi-dimensional concept of energy poverty.

Energy poverty is broadly understood as the inability of households to maintain adequate levels of energy services at affordable cost. It is caused by the interaction of three factors: low incomes, high energy needs (due to energy inefficient housing) and high energy prices. Other factors can be considered in addition, such as weather, fuel availability, stock type and performance, tenure, high living costs, etc. [Rural communities are the most exposed to the risk of energy poverty](#), with varying rates across EU countries, and a higher level in Western countries (GDP relation). [Energy poverty – or vulnerability – is key to consider for a fair energy transition](#).

As many as 35 million EU citizens were unable to keep their homes adequately warm in 2020, according to [Eurostat figures](#).

This number is likely to have been increased by the pandemic, the pernicious effects of the Ukraine invasion and the [resulting high energy prices](#), and as a consequence of a slow progress on energy efficiency improvements. The impacts of these developments on people and on the [economy](#) are striking. Energy poverty increased and most governments across Europe tried to put a patch on things with different measures.

As an additional long-term measure, RECs and CECs could contribute to the reduction of energy poverty. This briefing explores what would be suitable conditions and policy frameworks for this to happen, by drawing from findings of various EU-funded projects.

The background image shows an industrial site with large piles of material, possibly gravel or sand, in the foreground. In the mid-ground, there are various structures including a tall, thin chimney on the right and a large cylindrical tank in the center. The sky is overcast. The entire image has a dark green tint.

**The issue at
stake and
legislative
framework**

The issue at stake

and legislative framework

To tackle high energy prices, but also to save energy and move towards climate-neutrality, plans and proposals set forth by the European Commission in the [EU Green Deal](#) and [REPowerEU](#) call for an increased involvement of local and regional stakeholders in the energy sector, promoting active consumers, energy communities and an energy system that provides secure and reliable energy to all citizens.

The latest [State of the Energy Union Report](#) expresses deep concern about the impact that high and volatile energy prices may have on households' ability to pay their energy bills, risking to increase energy poverty with [millions of EU citizens](#) unable to keep their homes adequately warm. Member States are urged to address the root causes of energy poverty: citizen empowerment and participation in the energy system could be an answer to bridge some of the gaps between social and energy policy.

However, in an assessment of existing legislation and policy initiatives on energy poverty and energy communities, the [CEES](#) project [found that this gap remains significant at both EU and Member State level](#). Despite progress at the European level through initiatives such as REPowerEU and Fit for 55, Member States are struggling to address RECs and energy poverty together. Their legal obligation to enable access to RECs for low-income and vulnerable households has not shown much progress in delivering tangible results. [Member States need to overcome several legal and practical challenges](#) slowing or even halting progress in these developments [2] [3] [4]. COME-RES [analysed the transposition](#) in eight EU Member States and Norway, and [RESCoop.eu published an updated version of their transposition tracker](#) for all EU countries, including enabling frameworks and the provision on accessibility to low-income and vulnerable households.

The agency of energy communities to effectively realise their goals depends on a consequent transposition of the EU directives into national regulatory frameworks.

The overarching policy intentions of the EU Green Deal require that the energy transition must be just and inclusive, where 'no one is left behind'. The [Renewable Energy Directive](#) states that:

- countries must ensure that RECs are accessible to all consumers, including those in low-income or vulnerable households and
- tools to facilitate access to finance and information are available to low-income and vulnerable households (REDII, Article 22 (2 f and g)).

In [UP-STAIRS](#), the legislative framework, measures and incentives for energy communities were analysed in the 7 partner countries involved in the project: Austria, Bulgaria, Germany, Ireland, Latvia, Poland and Spain. Most [National and Energy Climate Plans \(NECPs\)](#) assessed mention energy communities; however, some of them do not provide any detail regarding their establishment and implementation. NECPs have the potential to clarify the kind of activities energy communities can engage with, as well as how they could help to accomplish national objectives.

Notably, **Austria** and **Ireland** have taken this opportunity and have highlighted the potential for energy communities to alleviate energy poverty. Adding to these, [BECoop](#) produced an "NECP scorecard" for Italy, Greece, Poland and Spain. The report, in production, investigates where energy poverty alleviation is discussed in relation to energy communities. BECoop finds that **Greece** links the development of clean forms of energy, funded by projects implemented by energy communities, with the alleviation of energy poverty. **Spain** mentions the right of access to energy as a fundamental aspect of the energy model change. Here, collective self-consumption schemes enable public administrations and social organisations to manage situations of energy poverty not only through economic support but through allocating a share in collective self-consumption. This would directly reduce the energy bills of consumers at risk of energy poverty. In **Italy**, the [English version of the 2020 NECP](#) mentions: "In addition, given their aims as set out in the Renewable Energy Directive, ways in which those communities can also provide support to families in conditions of energy poverty, especially where direct interventions (for example, self-consumption plants) are not technically feasible, will be explored."

In contrast, **Poland** did not discuss energy poverty alleviation *in relation to* energy communities.



**Barriers,
challenges &
opportunities**

Barriers, challenges, and opportunities

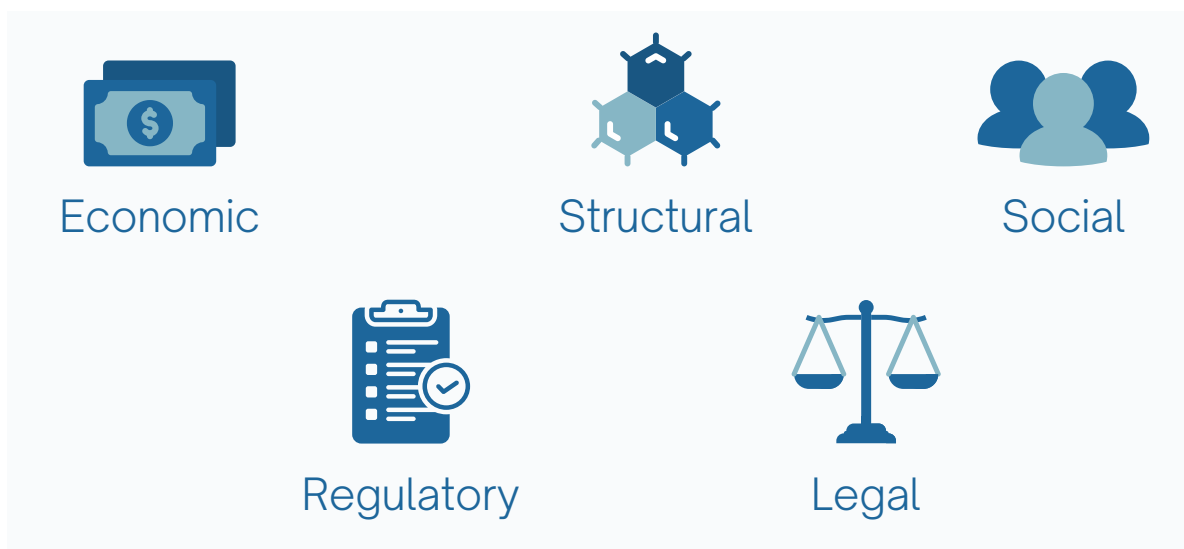
The current energy price crisis is driving many Europeans to look for alternatives to traditional energy sources and providers. Community-owned and -managed renewable energy projects, as new decentralised energy system models, seem to have the potential to reduce costs, increase energy security and accelerate decarbonisation, and could therefore be an answer to this search. Energy communities can pave the way towards an increased use of renewable energy, enabling and incentivising consumers to become prosumers, empowering them to participate in the energy market. But what are the challenges and barriers?

COME RES [analysed](#) the barriers and drivers for establishing RECs and considered the environmental, legal and social contexts of five selected regions with a low deployment of renewable community energy: Balearic and Canary Islands (Spain), Latvia, Norte (Portugal), Norway and Warmian-Masurian (Poland). The analysis addressed a diversity of technologies and rationalities such as energy security, tourism, farming, as well as social motivations and behavioural aspects relevant for promoting RECs. The project investigated pilot participants' role or involvement in the establishment of RECs. This included their social motivations, organisational structure, how they try to promote RECs, who they cooperate with and what they perceive as barriers. A general conclusion is that across geography and institutional belonging, the **regulatory and administrative aspects are the most challenging factors** for RECs and that measures should be targeted towards providing clear and adequate legal frameworks, as well as arrangements for prosumers to sell excess produced energy to the grid and share their self-produced electricity between members, neighbourhoods and properties. Procedures and bureaucracy should be simplified. The survey found that setting policy targets and providing capacity for local authorities are important measures to promote RECs according to the stakeholders consulted, along with providing support through financial funding and information.

The provisions to stimulate the uptake of community energy contained in RED II require all EU Member States to mainstream community energy by providing enabling frameworks for RECs: this represents a tremendous driver. Results from the COME-RES analysis indicate that policymakers need to address the manifold regulatory complexities associated with turning community energy from grassroots to mainstream.

Local authorities often face time, informational, and staff constraints. [Sun4All](#), another EU-funded project, is testing different financial schemes in four pilot cities (Almada, Barcelona, the Community of Communes Coeur de Savoie, and Rome). The schemes aimed at developing new approaches to facilitate access of vulnerable households to renewable energy generation (and its economic and environmental benefits), even if they suffer from energy poverty without capacity of investing in solar installations. This includes exploring the energy communities model. Participants received advice on efficient energy management at home, as well as the possibility to participate in workshops related to topics of energy rights and efficiency. Participants were empowered through knowledge transfer and a community programme. All pilots encountered bureaucratic and administrative barriers, together with a generalised lack of knowledge on how some of the necessary procedures should be done, for example for changing to a self-consumption contract, among others. The testing phase is still ongoing, so a final evaluation and results are not yet available.

The experience and lessons learned in our ten projects (see here studies from [EC2](#), [BECoop](#)) show that the main barriers in advancing the implementation of RECs are:





The social role of energy communities

and their potential to
address energy poverty

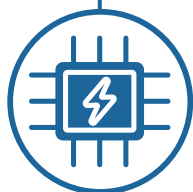
Energy communities' social role and potential to address energy poverty

The Greens/EFA Group of the European Parliament, together with several organisations, compiled [practical solutions to combat the impact of spiralling energy prices and to overcome energy poverty in a handbook](#). It includes practical solutions to combat energy poverty, including concrete examples of energy communities exploring different ways of mitigating the issue at the local level.

We outline below the benefits that RECs can trigger with regard to mitigating social injustice and energy poverty. The outline includes specific setups and frameworks that help unfolding its potential.



As a way to organise local actors to participate in the energy system, RECs have an impact on socio-economic and environmental factors: they can **tap regional value creation potential and strengthen social cohesion**. On top of reducing energy poverty and dependency, (bio)energy communities also allow **(local) job creation, and revenues for the municipalities**.



They can provide **potential for a bottom-up transformation of the energy system**, making a key contribution to enhance its decentralisation and democratisation [5]. Renewable energy communities can support the in-depth transformation of the economy and society to achieve climate neutrality in a way that takes account local circumstances and issues of social justice.

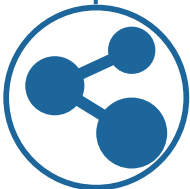
Energy communities can act as a life buoy when market prices are spiraling.



They can help provide sustainable, secure and affordable energy, accelerating the transition to renewables, reducing dependence on outside sources and diversifying energy supplies. They additionally can offer a shield against volatile energy markets. In Italy, [SEV](#), a service provider in South Tyrol, did not increase their energy prices in the past 20 years.

Community energy offers a great opportunity to overcome inequalities as well as generational, territorial and educational divides.

The community approach can empower individuals and territories: energy communities, particularly bioenergy ones, can allow savings with lower heating costs while reducing energy dependence, improving air quality and wellbeing - that is especially the case in regions where fossil fuels are still the vast majority, [such as coal in Poland](#).



Researchers have investigated RECs' particular impact on social value creation, energy and climate justice [6]. Although more research is required in this regard, they found that energy communities offer the potential to provide multiple answers to the crises faced, if the barriers previously mentioned are lifted. They can support **sharing locally-produced energy with vulnerable consumers, ending in more accessible and stable energy prices**, strengthening system resilience, reducing the need for investments in electricity grid extensions/reinforcements and enhancing local acceptance of renewable energy projects. To be inclusive, they should agree on favourable conditions for joining, for instance lifting entry fees for specific members.



They provide the opportunity for citizens to participate in collective energy generation **with no or low investments**.



Community energy can strengthen inclusiveness, community resilience and trust in the energy system [7], by **redistributing some of the benefits they receive to support social actions and community priorities**. A recent example is the [energy community of Karditsa](#), Greece, collecting local coffee residues to turn that into pellets and redistributing thermal energy to the nearest school in cooperation with local authorities and citizens. [Previous research](#) investigating social acceptance of renewable energy shows that local ownership and local benefits are important dimensions as they enable trust and influence over processes.




Beyond offering solutions to decarbonising our lives and increasing social acceptance of the energy transition and renewable energy projects through participatory processes, “energy communities create **spaces to educate and train people on issues of energy, climate and democracy**”. [8]

In the short term, energy communities are well placed to build local solidarity networks and reach out to their members and community to help out with energy savings measures, energy sobriety and lasting behavioural change. In the long run, they have the potential to create a meaningful approach to citizen empowerment and can increase accessibility to the benefits of the energy transition to all citizens.

Nurturing local heroes

“It takes one motivated individual to raise awareness within their community.” The [POWERPOOR](#) project investigates how bringing forward local heroes and providing them with tools and knowledge can foster energy democracy. **Providing information and sharing knowledge** is key in enabling a just energy transition, coupling this notion with the development of specific support schemes to alleviate energy poverty while bringing forward the uptake of joint energy initiatives is within the aims of POWERPOOR. In eight European countries (Bulgaria, Croatia, Estonia, Greece, Hungary, Latvia, Portugal, and Spain), trainings were given to interested individuals and municipalities on energy poverty (what is it, what are the mitigation policies and actions?), performing an energy audit, energy community/cooperative (what are they and how can they be used to alleviate energy poverty?).

The local heroes - Energy Supporters and Mentors, currently more than 850 individuals across EU - visited energy poor households to provide them with free advice on how they can lower their energy bills and enhance their energy efficiency by implementing low cost no regret energy efficiency interventions and behavioural changes using tools. Municipalities and local authorities were also trained and in some of the interested municipalities, **local energy poverty alleviation offices** were established (17 in the 8 countries). These one-stop-shops of information on how to mitigate energy poverty also share information on how to be part of joint energy initiatives such as energy cooperatives or communities and how to leverage innovative financing schemes. Municipalities can play a crucial role in establishing and operating energy communities while incorporating actions that can tackle energy poverty. Read more in the [Energy Poverty Guidebook for energy planning](#).



How can RECs be a solution to tackle energy poverty and energy injustices?

Conditions and policy
recommendations

How can RECs be a solution to tackle energy poverty and energy injustices?

Conditions and policy recommendations

In 2022, the European Parliament published a [briefing listing measures that can be considered to tackle energy poverty](#), including the establishment of local energy communities. But *what would be the right enabling and incentivising frameworks for RECs to alleviate energy poverty and what should policymakers prioritise?*

To make RECs suitable for addressing social justice issues in the energy transition, specific governance and membership models need to be established. According to our projects, the following policy recommendations are crucial to tackle energy poverty and engage citizens in the energy systems:

LEGAL FRAMEWORK




As a priority, Member States are obliged to completely and correctly **transpose the Renewable Energy Directive's provisions on RECs** (definition, rights and duties of RECs as well as creation of an enabling framework for RECs pursuant to Art. 22(4) of RED II and their proper consideration in support schemes). However, research results from several projects show shortcomings in EU member states.




National, regional and local governments are encouraged to remove barriers discouraging or prohibiting the participation of low income and vulnerable households in renewable energy communities. European legislation (RED II, Art. 22(4)) obliges Member States to create an enabling framework for RECs ensuring that, inter alia, **the participation in RECs is accessible to all consumers**, including those in low-income or vulnerable households.


Hence, national (and where applicable) regional governments should secure that low-income and vulnerable households can participate in energy communities.

 Include dedicated actions on promoting the inclusion of energy poverty in municipalities' **Sustainable Energy & Climate Action Plans (SECAPs / NECPs)**. Countries are supposed to submit the next version of NECPs in 2023 (draft) and 2024 (final), providing an opportunity, especially in [setting up multilevel climate and energy dialogue](#).

 In several Member States, social policy requires recipients of social benefit payments to first liquidate their existing assets before investing. This makes participating in a REC very unattractive for vulnerable households, despite the fact that many RECs offer low entry hurdles. Governments could **ensure that tenants can participate in energy communities, by promoting landlord-to-tenant electricity models and removing administrative barriers**. While the EU's competences on social policy are limited, it would nevertheless be prudent to issue guidance or recommendations to Member States suggesting that the participation in RECs for vulnerable households (recipients of social benefit payments) becomes decoupled from the need to liquidate assets before investing in RECs in particular.

 Introduce a **more inclusive energy poverty definition and an indicator set**, possibly complementing the indicator set currently used by the European Energy Poverty Advisory Hub and the EU Covenant of Mayors.

FINANCING

 Governments should provide **access to financing tailored to the needs** of RECs, rather than only allowing RECs to apply to financing schemes open to other market actors. For example, dedicated citizen/community energy funds designed as revolving funds, as in The Netherlands and some regions in Germany, provide unbureaucratic start-up financing to cover

upfront costs of RECs (e.g. feasibility studies, permits etc.). [9]



As working with groups and people living in vulnerable situations may come with additional challenges, **RECs focusing on energy poverty should receive support from EU and national governments.** Suitable instruments could be: grants, procurement, lower grid prices or incentives for using renewable energy, an EU-wide unified tariff-setting / regulations.

TECHNICAL CAPACITY & IMPLEMENTATION



National and regional governments are encouraged to **establish one-stop-shops which provide technical assistance for citizens, community energy initiatives, local authorities and SMEs.** These may build upon already existing intermediary structures like national or regional energy agencies and related competence centres. The [coordination office for energy communities established in Austria](#) provides a good example.



Support at the local level is needed to foster energy communities that include the participation of people suffering a situation of vulnerability. The Energy Poverty Advisory Hub (EPAH)[10] is carrying technical assistance to municipalities willing to promote energy communities accessible to all.



Depending on the national context, **municipalities have manifold ways to promote and facilitate the development of energy communities.** They can lease municipal land/buildings/roofs they own to energy communities with social and environmental criteria and conditions to alleviate energy poverty. They are potential initiators, investors and members of a REC and can act as facilitators, awareness raisers and networkers. They may disseminate good practices (see *Local heroes* example, page 16). Furthermore, municipalities can help create trust in and legitimacy for energy community initiatives



Clarify and simplify procedures (grid access), legislation, financial and ownership frameworks, data access and energy sharing rules.



Support the **decentralisation of the energy system** as bottom-up local developments arise, e.g., see projects like CEES, COME-RES, eCREW, EC2. Find ways to integrate the decentralised energy system back into the existing energy system by the energy utilities. RECs could then work hand in hand with local energy utilities. Decentralisation allows citizen empowerment and a bottom-up renewable energy growth creating a more environmentally friendly world including community building and aims for self-sufficiency. Integration on the other hand supports a constant energy access and security for the communities, risk sharing and division of responsibilities. This will also provide opportunities of growth for the energy communities and the energy utilities.

CAPACITY BUILDING & AWARENESS



Citizens' engagement is a fundamental step for the successful deployment of RECs all around Europe. Technical solutions necessarily need to be supported by **social innovation**. This is key to **engage, motivate, and inform citizens and all potential stakeholders of the benefits of, opportunities and negative externalities for participating in RECs** and how they could support energy poverty alleviation as well as inclusion.

One of the first energy communities' experiences, where 30 families in a situation of vulnerability held shares in a public PV installation in the Osona region (Spain) in 2021, proved that inclusion and empowerment were even more valuable than the savings^[11].



Ensure **administrative support** to guide and advise citizens in setting up RECs so noone is left behind.



Identify, showcase and engage local frontrunners, give them a space to promote the RECs successes - see POWERPOOR Local heroes and support offices as well as the Karditsa energy community examples. Support awareness raising, **capacity building and learning between communities**.

SOCIAL CAPACITY & INCLUSIVITY



Energy communities show particular potential for **participative and collective decision-making, problem solving and action**. In combination with membership diversity (age, gender and minorities), [they could contribute meaningfully to strengthening social justice in the energy system. Yet, they face significant challenges in the current energy market, which is not built to accommodate small, community players, making it hard to increase inclusivity.](#)

Member States are encouraged to investigate why vulnerable households haven't been able to participate in the energy transition in their country and why RECs experience difficulties attracting people from diverse social groups.

When assessing barriers for the development of RECs at the national level, Member States should primarily pay attention to identifying and lowering the barriers preventing vulnerable and low-income households, and tenants, to access energy communities. [12]



By definition, the potential of energy communities lies in their ability to represent diverse actors. Engaging in energy communities under-represented actors (by including for instance, but not limited to: women, non-binary people, disabled people, migrants, unemployed people) is essential to achieving this diversity. Political top-down support for women integration in the energy transition needs to be targeted for instance by demanding a **necessary percentage of women involvement in the governance and decision making bodies**.

Energy communities could have a **gender quota**, requiring in the short term an equal representation of different genders on boards and steering groups.



An **inclusive language in policy** is also needed, as well as going beyond binary data collection and representation. [For more information on this topic, see the after-even material of a collaborative discussion: More women in renewables and energy communities – safeguarding an enabling policy framework.](#)



Women are the underestimated driver for the energy transition. European initiatives and projects can support women's inclusion, through capacity building, awareness raising actions and more. [eCREW](#) layed a focus on women integration in all awareness programs in its lighthouse communities (LCs) where access to the energy management was digitalised. [W4RES](#) is scaling up the involvement of women in the market deployment and uptake of Renewable Heating and Cooling solutions via replicable support measures tested and validated across 8 European countries, such as international projects development, transformation strategy, prospective meetings but also seminars, webinars, hackathons, mutual learning and co-creation workshops that provide concrete gender tools.



Pay attention to energy (in)justice and energy citizenship: improving access to energy and emphasizing rights to energy are crucial for strengthening the role of citizens in energy systems. EC²'s approach highlights people's rights to and responsibilities for a just and sustainable energy transition. The structures of the current energy systems (neoliberal energy market) limit people's agency and the collectivist approach of energy communities could provide an empowering alternative. Energy communities can potentially unite a variety of aspects of energy citizenship - by incorporating democratic processes and social justice goals.



Provide **platforms for minorities and all members of the community to express their needs and priorities.** This can be done through various [engagement strategies](#).

Energy communities can be leveraged to alleviate energy poverty and strengthen social justice in the energy system, but bold policy actions are needed to structurally tackle social justice issues across the EU.

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Other resources

[EUSEW2022 | Community-based renewable energy projects for a just and green transition \(video recording\)](#)

<https://friendsoftheearth.eu/publication/redistributing-power-energy-communities-relieve-energy-poverty/>

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