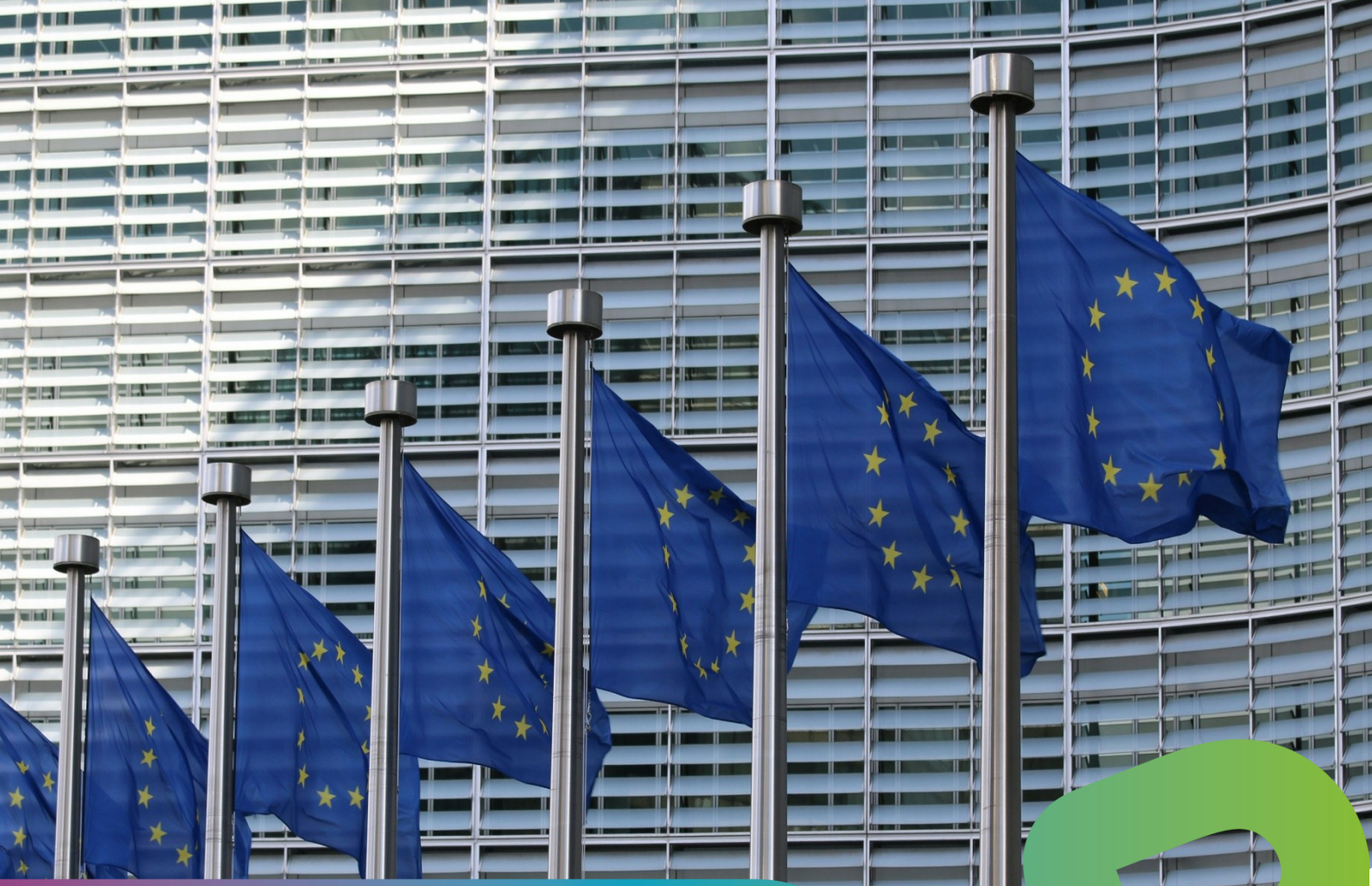

POWERUP

The catalyst for social innovation in the energy market

Policy Recommendations for a fair energy transition

Authors
Ami Crowther University of Manchester
Saska Petrova University of Manchester

Date: 14th February 2025

Deliverable: D6.3

Cover picture: Guillaume Périgois on Unsplash

This project has received funding from the European Union's Horizon 2020 research and innovation program under Grant agreement No. 101033940

Table of contents

Executive Summary

The POWER UP project focuses on supporting four pilots to develop and implement alternative social business models that include and provide benefits from renewable energy production and energy efficiency measures to households experiencing energy poverty without having to bear the financial risks.

Drawing upon the experiences undertaken as part of the POWER UP project in Valencia (Spain), Rožnov pod Radhoštěm (Czechia), Eeklo (Belgium), Campania Region (Italy), Heerlen (The Netherlands), and North Macedonia, this report presents policy recommendations framed at both, the local and national level. The policy recommendations were co-developed with the project partners, pilots, and researchers from the University of Manchester, UK, involved in POWER UP. The policy recommendations cover a range of topics – including definitions of energy communities, technical regulations, funding mechanisms, and planning procedures. The recommendations also address a number of stakeholders, including municipality departments, community organisations, and regulatory actors.

Alongside policy recommendations situated within the context of the pilots and replicators, recommendations framed at the EU level have also been developed. These EU level recommendations capture the higher-level experiences of the energy communities and were developed by synthesising the experiences of the pilots.

Throughout the report, when appropriate, reference is made to existing policy frameworks and support mechanisms to highlight potential synergies and opportunities for building upon existing activities.

Check out the other public reports of the POWER UP project on www.socialenergyplayers.eu

01

Introduction

The POWER UP project focuses on supporting the development and implementation of alternative social business models for renewable energy and capacity building activities. The project activities include activities to engage and support households experiencing energy poverty to participate in green energy transitions while alleviating energy poverty.

As part of the REPowerEU Plan, there are ambitions to increase the number of Energy Communities across the EU as key partners in energy transitions. Experiences of the POWER UP project have highlighted various opportunities for interventions, approaches and initiatives to facilitate the development of socially inclusive low-carbon transitions, particularly through the use of alternative social energy models. Based upon the experiences of pilots involved in the POWER UP project, local, national and EU-level policy recommendations related to how energy communities and alternative social business models could become more inclusive and contribute sistematically to alleviate energy poverty have been developed.

The policy recommendations presented in this report were co-developed with the four pilots and two replicators of the project. This co-development process occurred across a number of stages. Before focusing on specific recommendations, the pilots were asked to reflect upon the context that their pilot was situated in, to identify challenges and policy gaps, and to outline lobbying or outreach activities that they had undertaken. These reflections provided the foundation for researchers from the University of Manchester, UK, to develop initial policy recommendations that were then discussed and amended over several iterations between the pilots and consortium partners involved in the POWER UP project.

The structure of the report is as follows. Chapter 2 sets out the EU-level policy recommendations, divided into 4 categories: 1) Regulatory, 2) Social, 3) Technical, and 4) Economic. Chapters 3-8 include an introduction to each of the pilot's activities, before setting out the national and local policy recommendations for supporting energy communities and alternative social business models.

02

Policy Recommendations for the European Union

Before presenting local insights for each pilot and their national context, we first draw upon our collective experience across the POWER UP project to provide recommendations for the European Union. These recommendations cover a range of aspects, including the regulatory, economic, social and technical aspects of energy communities and social alternative energy business models in their attempts to be more inclusive and alleviate energy poverty. A range of stakeholders across multiple scales are also highlighted as critical to support the achievement of the recommendations, including Member States, national institutions and regulatory bodies, local governance actors, research funding organisations, and researchers.

2.1

Overview of EU-level recommendations

Regulatory Recommendations
• Support Member States to transpose the European Commission's definitions of energy communities into national laws. • Fund Member States to establish and sustain national and local One-Stop-Shops as information and participation hubs. • Support Member States to develop policy mechanisms that encourage on-site energy sharing .

Social Recommendations
• Fund and develop regulatory requirements for energy community initiatives and projects to include mechanisms to support the participation of households experiencing energy poverty. • Recognise that the ability to participate in energy communities and alternative social energy business models differs across society, and provide guidance and support on how to involve households experiencing energy poverty in green energy transitions. • Incorporate energy communities into policy frameworks that address energy poverty.

Technical Recommendations
• Fund interdisciplinary research into the implementation and maintenance of alternative social energy business models and energy communities that are inclusive and empowering.

Economic Recommendations
• Establish funding mechanism to support the preparatory activities required to establish energy communities that can be accessed by local municipalities and all communities, including those that might have been marginalised or excluded from green transitions.

2.2

Regulatory Recommendations

- Support Member States to transpose the European Commission's definitions of energy communities into national laws.

  Across the POWER UP pilot locations, challenges relating to definitions of energy communities have emerged as a barrier to the activities undertaken. Whilst the EC has provided definitions for what Renewable Energy Communities (RECs) and Citizen Energy Communities (CECs) are, Member States must be supported to translate this into their local contexts and national laws. This could be supported by centrally collecting the different ways in which energy communities have been transposed into law and presenting this information in an accessible database, which policymakers can draw upon for inspiration and support. For instance, the transposition tracker from REScoop.eu can be a relevant starting point.

- Fund Member States to establish and sustain national and local One-Stop-Shops as information and participation hubs.

  Establish a centralised source of information about energy communities in each Member State to facilitate the sharing of information, and ensure there is consistency in the information and definitions across stakeholders. These national information hubs would draw upon the experiences of existing energy communities, to share up-to-date and nationally-relevant information on energy communities and to help address challenges. These hubs could also facilitate networking between energy communities. For geographically diverse countries (i.e. countries with different topographical areas, such as mountainous and coastal) regional hubs could be established that are better able to capture and provide insight on the local context and opportunities for energy communities.

- Support Member States to develop policy mechanisms that encourage on-site energy sharing.

  Support Member States especially, form Central and Eastern Europe, to develop policy and regulatory mechanisms and enabling frameworks that encourage households in apartment buildings and neighbourhoods to use and share energy produced on-site (i.e., PVs on roofs and community heat pumps). Based on the pilot's experience in Rožnov (Czechia), several barriers remain, blocking innovative initiatives aiming to decentralise energy production.

2.3

Social Recommendations

- Fund and develop support and regulatory requirements for energy community initiatives and projects to include mechanisms to support the participation of households experiencing energy poverty.
  Regulations should be established (and resources provided at a local level) that mandate all energy communities need to provide mechanisms to support the participation of diverse groups. These mechanisms need to be designed in an appropriate way that focuses on empowering individuals through their participation in the energy community.

- Recognise that the ability to participate in energy communities and alternative social energy business models differs across society, and provide guidance and support on how to involve households experiencing energy poverty in green energy transitions.
  As shown throughout the POWER UP project, there is value in engaging households experiencing energy poverty into energy communities. But, in many cases, these households experiencing energy poverty face additional barriers to participation without mechanisms to support their participation. A repository of resources and best practices to support the inclusion of vulnerable groups in energy communities should be created to facilitate this. Such repository should be developed at the European level, but with the opportunity to filter the entries by characteristics such as nation, urban/rural, topographical features, allowing to capitalise on the different projects and pilot initiatives across Europe. For instance, this repository could be a joint initiative from the the Energy Poverty Advisory Hub and the Citizen Energy Advisory Hub..

- Incorporate energy communities into policy frameworks that address energy poverty.
  The alternative social business models for energy communities developed in the POWER UP (and other EU projects like Sun4All and CEES) project have focused on supporting households experiencing energy poverty, demonstrating the potential for energy

communities to help address issues of energy poverty. Policy frameworks and funding mechanisms for addressing energy poverty (such as the European Green Deal and Social Climate Fund) should provide opportunities to engage with, and utilise energy communities directly.

2.4

Technical Recommendations

- Fund interdisciplinary research into alternative social energy business models and energy communities that are inclusive and empowering.
  Developing inclusive energy communities requires technical knowledge of energy systems and social understandings on how to ensure initiatives are developed in an accessible way. Processes for integrating these different forms of knowledge and their associated approaches would benefit from further refinement through interdisciplinary research. There is the need to continue funding this research through defined funding programmes (building upon progress made under Horizon Europe, Horizon 2020 and LIFE CET).

2.5

Economic Recommendations

- Establish a funding mechanism to support the preparatory activities required to establish energy communities that can be accessed by local municipalities and all communities including those that might have been marginalised or excluded from green transitions.

  The costs of undertaking the legal and technical surveys required to explore potential energy community opportunities, and necessary to justify the development of energy communities, was highlighted as a key barrier within POWER UP. The establishment of a funding mechanism for these preparatory activities would remove this barrier and help support the development of energy communities. Such a funding mechanism should be ideally nationally coordinated relying on the the EU's Social Climate Fund. Another possibility is to rely on the recently launched Energy Communities Facility initiative, integrating to the funding opportunities requirements on the participation of vulnerable households in the initiatives to be prefigured.

03

Policy Recommendations for Valencia and Spain

The policy recommendations presented here are informed by the experiences of the Valencia pilot of the POWER UP project. As part of POWER UP, Valencia Innovation Capital and Valencia Climate & Energy designed and implemented two social, community-based renewable project models. The first one focused on the creation of a citizen-based energy community by investing in a PV system on a public roof and then sharing the energy produced through a model of collective self-consumption. Moreover, households experiencing energy poverty will be included in the energy community and receive energy for free, as this is one of the requirements sets by the Municipality in the procurement contracts of the roofs. The second model involved the installation of PV systems on public land, namely the roofs of cemetery buildings, the energy produced in the 5 installations will go to municipal buildings and to households experiencing energy poverty.

Based upon the experiences of designing and implementing these different social business models to support the participation of energy households experiencing energy poverty in the energy transition, the Valencia pilot alongside POWER UP consortium members have developed recommendations situated at both national (Spain) and local (Valencia) level.

These recommendations cover a range of topics from the transposition of the Energy Communities EU legislation at the national level, to the constitution of a new figure of "shared-consumption manager or aggregator".

3.1

Overview of Recommendations

Local Recommendations for Valencia
• Facilitate data sharing between different stakeholders associated with the development of inclusive energy communities. • Remove distance-based restrictions on energy production-consumption. • The Ministry for the Ecological Transition and Demographical Challenge (MITECO) should establish standard step-by-step procedures for consumer registration at the local level, including registering households experiencing energy poverty to participate in energy communities. • Ensure that energy coefficients adapt to the demand of the members instead of being fixed.

National Recommendations for Spain
• Establish a more detailed legal definition of Energy Communities . • Develop a fund to support the completion of technical and legal studies supporting the development of energy communities.

3.2

Local Recommendations

- Facilitate data sharing between different stakeholders associated with the development of inclusive energy communities.

  Mechanisms need to be established by local regulating authorities to support data sharing between different stakeholders with knowledge, contacts and resources to establish inclusive energy communities and alternative social energy models. This includes organisations that support energy households experiencing energy poverty as well as those with technical knowledge of the energy system. These mechanisms should be established by the municipality, as a central element is facilitating data sharing between different municipal departments/services. By facilitating data sharing it aligns with the EU's Fit for 55 programme which aims to deliver a just and socially fair low-carbon transition.

- Remove distance-based restrictions on energy communities.

  Current legislation (Royal Decree 23/2020) states that any members of a collective self-consumption project must be within a 2km radius of the supply point. There is the need to remove this distance restriction to increase opportunities for participation.

- The Ministry for the Ecological Transition and Demographical Challenge (MITECO) should establish standard step-by-step procedures for consumer registration at the local level, including registering households experiencing energy poverty to participate in energy communities.

  The establishment of energy communities requires more than just technical developments, there is also the need to register consumers into the energy community. Currently, there are no standard protocols or procedures for this registration process, resulting in complex administrative landscape - the standardisation of the registration process would help to address this. The Ministry for the Ecological Transition and Demographical Challenge (MITECO) should be responsible for this process. Yet, there is the need to ensure that there remains flexibility in these processes so that the different

needs and circumstances of individuals can be accommodated. The accommodation of different contexts complements the EU's commitment to ensuring a just energy transition.

- Ensure that energy coefficients adapt to the demand of the members instead of being fixed.

  There is the need to incorporate more flexibility into the energy shares of the collective self-consumption scheme among the participants. This way the consumption of the energy produced by the renewable installation can be optimised, instead of apportioning a fix energy coefficient share to each of the participants, as it is currently stated in the Royal Decree 244/2019.

3.3

National Recommendations

- Establish a more detailed legal definition of Energy Communities.
  In order to provide support to energy communities, there is the need to ensure all stakeholders understand what an energy community is. A more precise definition than the information included in Royal Decree 23/2020 is required. The Royal Decree needs to include more detail in relation to the regulation, creation, operation and benefits of energy communities. The regulatory framework developed should align with European regulations.

- Develop a fund to support the completion of technical and legal studies supporting the development of energy communities
  Technical and legal studies are required to provide concrete understandings of what is feasible in terms of energy communities within a location. A national fund should be made available to support communities to undertake these initial steps to develop energy communities. If incorporated into the national Social Climate Plan and if focus placed on supporting households experiencing energy poverty, there is the possibility to draw upon the EU's Social Climate Fund for this mechanism.

04

Policy Recommendations for Eeklo and Belgium

The policy recommendations presented here are informed by the experiences of the Eeklo pilot of the POWER UP project. As part of POWER UP, the city of Eeklo and citizen energy cooperative Ecopower designed and implemented a social business model to facilitate the access of vulnerable households to activities of energy communities. The social business model focused on the allocation of maximum 100 social shares to a community-owned wind turbine, with this enabling 100 households to access the energy cooperative energy tariff. Especially households which are dropped by commercial electricity suppliers and forced to retrieve electricity from the social supplier (DSO) at a higher than market average price, can realise a clear benefit on their energy bills by switching to cooperative tariff.

A second step of the intervention is to use an innovative financing model to realise social solar panels on the roof of households participating in the pilot. Through third-party financing by Ecopower, households can benefit from solar energy at no cost when the sun is shining, representing a sustainable and structural advantage on their electricity bill.

Based upon the experiences of designing and implementing the social shares and social solar panels models, the Eeklo pilot alongside POWER UP consortium members have developed recommendations situated at both national (Belgian) and local (Eeklo) scales.

These recommendations cover a range of topics including regulations regarding pre-paid meters and social tariffs, citizen participation activities, and recognition of energy communities as social enterprises.

4.1

Overview of Recommendations

Local Recommendations for Eeklo
• The Flemish Government should enable consumers with pre-paid meters to switch to commercial suppliers.

National Recommendations for Belgium
• Expand the groups eligible for the social tariff. • Require all renewable energy projects to include citizen participation activities. • Ensure that local governments support renewable energy projects. • Recognise energy communities as social enterprises. • Protect energy communities from fluctuations in the energy market.

4.2

Local Recommendations

- The Flemish Government should enable consumers with pre-paid meters to switch to commercial suppliers.

  Currently, households with a pre-paid digital meter must be debt-free with the social supplier before returning to the commercial market (Flemish Energy Decree of 19 November 2010 Article 5.3.2.). However, consuming energy at cost price through the 'social' share model would allow them to pay off their debts with the social supplier at an accelerated rate. Accelerate the intention of the Flemish government to allow consumers with a budgetmeter (i.e. prepaid energy meter) to switch to commercial suppliers. Switching energy providers and having a choice over tariffs is shown to be an effective way of managing an individual's energy bills, yet is not permitted for those with pre-paid meters. This disproportionately affects vulnerable groups including household experiencing energy poverty. Changes in this policy would advance the EU's ambitions to support those in energy poverty.

4.3

National Recommendations

- Expand the groups eligible for the social tariff.
  The social tariff is a measure of the Belgian federal government to help individuals or families belonging to certain categories of entitled persons to pay their energy bills. It concerns a favourable rate for electricity, natural gas or heat. It is identical throughout Belgium, regardless of the energy supplier or system operator. The tariff is calculated four times a year by the federal energy regulator, the Commission for the Regulation of Electricity and Gas (CREG). The social tariff is regulated in the Law of 2 May 2019 amending the law of 12 April 1965 on the transport of gaseous products and other through pipes, the law of 29 April 1999 on the organisation of the electricity market and the programme law of 27 April 2007.
  The provision of a social tariff remains the most effective and structural measure for addressing energy poverty. Eligibility for the social tariff was expanded temporarily during the energy crisis, and experiences through the POWER UP project showed how households that were eligible for the social tariff during this period, but are no longer eligible, struggle the most to pay their bills. It is up to policy makers to define the eligibility of this measure. As it remains the most effective weapon against energy poverty, we recommend to enlarge the group of households eligible rather than using budget on other, less effective measures.

- Require all renewable energy projects to include citizen participation activities.
  A minimum share of citizen participation should be required for all renewable energy projects - a requirement already in place in the Netherlands. Responsibility for ensuring this participation will be held by the regional (Flemish) government for wind projects (relevant regulation: Decree adapting and supplementing spatial planning, licensing and enforcement policies of 27 March 2009 and the corresponding circular Assessment framework and preconditions for the erection of wind turbines OMV/2024/01), and local and Flemish government for solar projects on public buildings. Expanding this further

to include requirements for engaging a minimum share of households experiencing energy poverty would contribute to the European Commission's ambition for a socially inclusive low-carbon transition.

- Ensure that local governments support renewable energy projects.
  The success of alternative social energy models based on renewable energy requires support from local governments during both the implementation and maintenance stage of the project. A mandate for local governments to contribute resources to renewable energy projects could be included within the climate action plans.

- Recognise energy communities as social enterprises.
  The recognition of energy communities as social enterprises by the Flemish government, would enable tailor-made support mechanisms and softer regulations to be established. The articulation of energy communities as social enterprises would also facilitate collaboration with local authorities which are sometimes reluctant to partner with an electricity supplier, even when it is a cooperative and thus citizen-owned one.

- Protect energy communities from fluctuations in the energy market.
  Energy communities are particularly vulnerable to market price fluctuations, with this impacting citizen participation in energy communities. Establishing a protective mechanism that shelters energy communities from energy market extremes, for example through a mechanism like the Cooperative Energy Generation Subsidy Scheme (SCE) in the Netherlands, would encourage the establishment of, and participation in, energy communities. A public authority (regional or federal) would be best placed to organise such a supportive measure. Increasing the attractiveness (and sustainability) of energy communities would support the achievement of the REPowerEU Plan of increasing energy communities in municipalities with a population of more than 10,000.

05

Policy Recommendations for Rožnov pod Radhoštěm and Czechia

The policy recommendations presented here are informed by the experiences of the pilot in Rožnov pod Radhoštěm (Rožnov) of the POWER UP project. As part of POWER UP, the City of Rožnov pod Radhoštěm designed and implemented two solutions to support households experiencing energy poverty to participate in the energy transition.

The first is a business model that focuses on installing solar PV systems in municipal apartment buildings, enabling residents to benefit as prosumers. Participating households can significantly reduce their electricity costs. The scheme is designed to accommodate up to 50 households, as this aligns with the current capabilities of the Electroenergy Data Centre. Under current conditions, the EDC employs an iterative sharing method, which can be utilised by sharing groups of up to 50 EANs. This method allows shared electricity to be distributed in up to five iterations, ensuring that nearly all generated electricity is allocated among consumers. For sharing groups exceeding 50 EANs, only a single-round static sharing method will be available. This approach distributes electricity to consumers based on predetermined shares. In the coming years, it is expected that additional sharing methods will be introduced, informed by feedback from end users of the Electroenergy Data Centre (EDC).

The second solution centers around establishing a One-Stop-Shop for energy solutions. This platform provides comprehensive guidance to individuals and organisations seeking advice on energy savings, improving energy efficiency, implementing renewable energy solutions, and identifying suitable financing sources for these initiatives.

Based upon the experiences of designing and implementing these social business models, the Rožnov pilot alongside POWER UP consortium members have developed recommendations situated at both national (Czechia) and local (Rožnov) level. These recommendations cover a range of topics including the implementation of renewable energy systems, the design of energy-sharing methods in an apartment building, and the establishment of advisory platforms like One-Stop-Shops for energy solutions, as well as require the involvement of a range of stakeholders such as municipal authorities, citizens, and energy service providers.

5.1

Overview of Recommendations

Local Recommendations for Rožnov
• Local authorities could promote the benefits of energy communities using case studies and insights from the REPowerEU plan. • Establish energy community policies at the local level.

National Recommendations for Czechia
• Enhance inclusivity and feedback mechanisms for energy communities. • Provide funding and support for energy communities.

5.2

Local Recommendations

- Local authorities should promote the benefits of energy communities using case studies and insights from the REPowerEU plan.

  In November 2024, the Ministry of Environment in the Czech Republic launched a platform dedicated to supporting the establishment of energy communities. This platform serves as a hub for sharing best practices, quickly identifying barriers and challenges, and providing ongoing information to ensure the successful implementation of supported projects.

  The platform is a collaborative effort involving the Ministry of Environment, the State Environmental Fund of the Czech Republic, the Energy Regulatory Office, the Union of Community Energy, and the National Centre for the Support of Energy Communities (NCPEK).

  Local authorities can leverage this platform using the insights from the REPowerEU plan, which aims to significantly increase the number of energy communities across Europe. Achieving this goal would benefit from clearly articulating the advantages of energy communities. Inspirational case studies, such as those available through the European Commission's Energy Communities Repository, can play an interesting role in raising awareness and engaging stakeholders.

- Establish energy community policies at the local level.

  Energy communities are shaped by the specific context in which they are implemented, but their establishment, operation, and maintenance must adhere to the national legislative framework. To ensure compliance and efficiency, consult reliable online resources, such as step-by-step guides like: How to set up an energy community? Read a clear step-by-step guide. When in doubt, seek guidance from experts, such as the Union of Community Energy or organisations like Frank Bold, which specialise in community energy projects and related legal matters.

5.3

National Recommendations

- Enhance inclusivity and feedback mechanisms for energy communities.
  Establish a centralised platform to serve as a single point of contact for submitting comments, suggestions, and concerns related to energy communities. This platform should be open to all stakeholders, not just subsidy recipients, ensuring inclusivity and transparency. Encourage professional bodies and stakeholders to actively engage by voicing their concerns and providing specific feedback on key issues. Expanding the national platform in this way will foster collaboration, improve responsiveness, and support the effective development and implementation of energy communities.

- Provide funding and support for energy communities.
  The provision of funding and resources to support energy communities should be overseen by the national Ministry of Environment. Funding mechanisms could include targeted programs under the Modernisation Fund, such as the upcoming KOMUNERG call, which focuses on supporting energy communities established to meet their own energy needs (with a non-profit primary purpose). Additionally, other calls within the Modernisation Fund, such as RES+ – Nové obnovitelné zdroje v energetice, can provide investment support for renewable energy sources.
  Non-financial support, such as knowledge-sharing, administrative assistance, and capacity building, should be delivered through dedicated platforms or partnerships with professional organisations, ensuring communities have the expertise and tools needed to establish and operate effectively.

06

Policy Recommendations for the Campania Region and Italy

The policy recommendations presented here are informed by the experiences of UCSA and AESS in San Giuseppe Vesuviano, Palma Campania, San Gennaro Vesuviano and Striano municipalities, in the Campania Region (Italy), when developing a Renewable Energy Community (REC) as part of the POWER UP project. The REC, called "Comunità Energetica Rinnovabile Vesuvio Est", focuses on generating electricity using photovoltaic (PV) installations on public buildings and areas. In particular, the REC aims to install a Solar PV farm in an area confiscated from the mafia and incorporate several existing solar installations that are currently unconnected to the grid. Households experiencing energy poverty within the participating municipalities will be included in the REC as consumers. These households will be selected through public calls issued by the municipal authorities. Upon their inclusion, these households will virtually consume the energy produced by the REC's PV installations, contributing to generate a premium tariff for the REC, as established by the Italian legal framework for energy communities. As members of the REC, these households will be entitled to a share of the incentives generated. This will result in a contribution destined to support part of their energy costs, providing economic relief and improving their overall well-being.

Based upon the experiences of designing and implementing the pilot's social business model to support the participation of energy households experiencing energy poverty in the energy transition, the Campania Region pilot alongside POWER UP consortium members have developed recommendations situated at both national (Italy) and local (Campania Region) level.

These recommendations cover a range of topics, including funding opportunities for energy communities, mechanisms for information sharing, the standardisation of legislation, and updating planning processes.

6.1

Overview of Recommendations

Local Recommendations for Campania Region
• The region of Campania Government could allocate resources to promote energy communities and complement funding opportunities provided by the national government. • Establish energy information offices within municipalities.

National Recommendations for Italy
• Standardise national legislation in relation to energy communities. • Establish procedures for enabling public areas to be used by energy communities.

6.2

Local Recommendations

- Allocate resources to promote energy communities and complement funding opportunities provided by the national government.

  The region of Campania should support the municipalities with a population over 5,000 by allocating resources to promote energy communities. This would complement the funds that have already been allocated at national level for municipalities with populations below 5,000. Promotional measures could be implemented, drawing upon the experiences of the Emilia-Romagna Region, where a public call was launched to 1) finance the creation and implementation of feasibility studies for the generation systems (open to all - more information here) and 2) finance generation systems owned by energy communities in cities with over 5,000 inhabitants (more information here), in both cases the resources came from the European Cohesion Fund (Pr Fesr 2021-2027).

- Establish energy information offices within municipalities.

  Information offices for citizens should be set up within the municipalities for energy related issues, similar to the model of the Oficinas de Transformación Comunitaria (OTCs) adopted in Spain. Thanks to the meetings organised by the POWER UP Project in October 2024, the Municipality of Palma Campania established a connection with ADOC, a consumer association with expertise in addressing energy poverty. The municipality commissioned ADOC to manage an office within the municipal building. This office will provide support to households, offering information on energy-related issues, with a particular focus on addressing energy poverty. It will also inform residents about the renewable energy community that has been established under the POWER UP project, explaining how they can participate and benefit from it.

6.3

National Recommendations

- Standardise national legislation in relation to energy communities.
  National legislation needs to have greater uniformity regarding the legal recognition of energy communities, particularly in relation to the economic aspects of legally establishing an energy community entity. In Italy, the minimum capital required for legal recognition varies across legal forms, with these values also differing between regions. For example, there is a 15 to 60 thousand euro difference between recognised associations operating in Lombardy and Campania. The establishment of energy communities would benefit from a simplified, standardised approach for legally establishing energy communities.

- Establish procedures for enabling public areas to be used by energy communities.
  Procedures for installing energy generation systems for energy communities on public land need to be simplified. Whilst the Legislative Decree n. 13/2023 (art. 47, paragraphs 4 and 5) introduced a simplified mechanism for the concession of public areas for the installation of a renewable energy community's energy generation system until 31 December 2025, this only applies to municipalities with less than 5000 inhabitants financed through National Recovery Found (Piano Nazionale di Ripresa e Resilienza - PNRR). Although the National Anti-Corruption Authority (ANAC) was supposed to develop standardised provisions and specific models for the tenders/public calls to be used by local authorities, this has not occurred, meaning that the legal provision remains inapplicable in practice. To support the process, we encourage ANAC to publish these standardised provisions and models.

07

Policy Recommendations for Skopje - Municipalities of Centar, Valandovo and Shtip, and North Macedonia

The policy recommendations presented here are informed by the experiences of the Macedonian Anti-Poverty Platform in the municipalities of Centar, Valandovo, and Stip, North Macedonia, as replicator of POWER UP pilot initiatives to support the designing of a more inclusive local energy market.

Based upon the local experiences and capacity building activities to support the participation of energy vulnerable households in the energy transition, the North Macedonia partner alongside POWER UP consortium members have developed recommendations situated at both national (North Macedonia) and local (Centar, Valandovo and Stip) scale.

During the preparation of the project activities and through discussions with people from the local community, it was identified that the expectation of including households at risk of energy poverty in planning local business models is a bit hasty. In essence, local governments and representatives of local institutions and organisations are the ones who, instead of leading the process, have very little knowledge related to social business models in the field of energy. Therefore, we focused mostly on people in the communities who are close to the citizens and know the conditions in which they live. First of all, these are representatives of citizens' associations, employees or managers in primary schools and kindergartens, representatives of public enterprises, representatives of the municipal administration who work on the topic or related areas (mostly from the sectors of local economic development, energy efficiency, urbanism, social protection), etc. Our strategy is for these people, with whom we have built capacities, and who enjoy authority and are respected in the community, to be our allies in the subsequent planning of local models for a just energy transition and reduction of energy poverty.

These recommendations cover a range of topics including energy poverty definition, subsidies for energy vulnerable households and more knowledge about energy transition, as well as require the involvement of a range of stakeholders such as national and local authorities in cooperation with social services.

7.1

Overview of Recommendations

Local Recommendations for Skopje – Municipalities of Centar, Valandovo and Shtip
• Develop a database to monitor the energy needs of vulnerable households. • Map possibilities for installing renewable energy sources (beyond the solar potential of public buildings), including an overview of energy consumers by sector and by energy source, accompanied by an analysis of the habits and needs of citizens for energy use. • Increase information and education among citizens on topics and potential opportunities related to renewable energy sources, energy efficiency, and energy communities. • Design subsidy schemes and support for initiating energy communities and cooperatives.

National Recommendations for North Macedonia
• Establish a clear definition of, and methodology for measuring, energy poverty. • Introduce subsidies for low-income households to improve their energy efficiency. • Strengthen legal protections for households experiencing energy poverty against disconnection.

7.2

Local Recommendations

A specific feature of municipalities in North Macedonia is that they are not fully decentralised and are largely dependent on the national budget. Hence, their expectations are that the state should take care of reducing energy poverty and implementing new trends related to greening all sectors, including investments in renewable sources and support for energy-vulnerable households. As local priorities, we single out:

- Develop a database to monitor the energy needs of vulnerable households.
  In order to provide appropriate support to vulnerable households, there is a need to develop a comprehensive database that captures the current context and specific energy needs of these households. This database can then be used by municipalities and interest groups (including citizens' associations and the business community) to support the most vulnerable population. The added value of creating such a database is that it will determine the local specifics of energy vulnerability and define the different conditions that cause vulnerability in households, as well as criteria to enable easier finding of solutions and pulling households out of the vulnerable state.

- Map possibilities for installing renewable energy sources (beyond the solar potential of public buildings), including an overview of energy consumers by sector and by energy source, accompanied by an analysis of the habits and needs of citizens for energy use.
  A good example of this is the municipalities of Centar and Valandovo, where techno-economic analyses have been developed for installing photovoltaic systems on public buildings and potential locations in the municipality where photovoltaic panels can be installed have been recorded. However, the absence of citizens' needs and adaptation of systems to their needs, especially among those facing social risks, is evident. Such mapping can be used in close connection with the proposed database, to identify inclusive business models for energy production and distribution.

- Increase information and education among citizens on topics and potential opportunities related to renewable energy sources, energy efficiency, and energy communities.

  Citizens expressed concerns that they lack sufficient information and do not know how to access it. They believe that opening an energy office (as in Centar) would be an excellent way to improve their access to information. Additionally, they think that the municipality should enhance its citizen information services and increase the availability of relevant data. Capacity-building workshops are one of the methods for improving education on these topics. Schools have great potential to further educate both citizens and students on this subject and to mobilise interested individuals for a potential energy community.
- Design subsidy schemes and support for initiating energy communities and cooperatives.

  In this sense, it is necessary to encourage the production of citizen energy and increase citizen participation in the energy market, but also to provide technical and administrative facilitations for interested groups of citizens who want to get involved. At the same time, it is necessary that these schemes respond to the vulnerability recorded during mapping and in the database, in order to program redistribution, renovation or increase the shares of energy-vulnerable citizens.

7.3

National Recommendations

- Establish a clear definition of, and methodology for measuring, energy poverty.

  A clear national definition and methodology for measuring energy poverty needs to be developed to help inform the activities that should be undertaken to support vulnerable households. Developing this definition and methodology by collaborating with local governments, academics, and civil society organisations will help capture the nuance of energy poverty.

  Macedonian laws do not define energy poverty decisively, but use EU definitions that are most often promoted by civil society organisations. The Law on Energy states "Article 14: In order to implement social protection from energy poverty of citizens, the Government of the Republic of Macedonia, upon a proposal of the ministry prepared in cooperation with the ministry responsible for social protection, adopts an annual program for reducing energy poverty which, among other things, envisages subsidising the consumption of energy and energy sources for individual households, the types of energy and energy sources that will be subject to the subsidy, more efficient use of energy, the manner of implementing the measures, the sources of budgetary and other funds for financing the measures and the bodies responsible for the implementation of the measures."

  Unfortunately, the envisaged programs are not being developed, nor is there a clearer explanation of what the state means by energy poverty. This methodological gap also creates a problem at the local level, i.e. local governments are committed to energy efficiency and energy production, but they do not have an intersectoral connection of policies that would include social and other components. This kind of one-sidedness further increases pollution (related to heating fuels), impairs health (related to the condition of the dwelling and the fuels used), impairs the quality of life (related to energy efficiency of the home and appliances) and excludes citizens (related to income poverty and the right to energy).

- Introduce subsidies for low-income households to improve their energy efficiency.
  Subsidies for low-income households to help them access energy-efficient appliances and adequate heating and cooling systems should be introduced. These subsidies could be developed as part of the Social Climate Fund. Currently, there are two types of programs that subsidise inverter climates (energy-efficient devices).
  The first is very limited and applies to the general population, there are no criteria for access to it and timely information on how to apply is often absent. The other applies to low-income citizens and is regulated through the Program for the Protection of Vulnerable Energy Consumers. It changes every year in the scope of persons and measures it offers (sometimes financing, sometimes vouchers for the purchase of inverters), but what is a problem is that the equipment provided is not linked to the quality of housing and other social risks, but primarily aims to reduce air pollution from the use of wood as a heating source.
  There is still no program for 2025 and it is announced that it will not provide subsidies for equipment, but everyone who meets the conditions for it will receive 1000 denars (17 euros). There is a lack of tailor-made programs, especially for the most vulnerable, but supported by social services or community services so that a real change in the quality of life of the beneficiaries can be achieved. The way the system is currently set up, it only pays attention to reducing air pollution, and not to increasing the debts of energy-vulnerable families, which later becomes a more serious problem.

- Strengthen legal protections for vulnerable households against disconnection.
  Legal protections that protect vulnerable households against disconnection from utilities during extreme weather conditions should be established. North Macedonia does not have a system that identifies and takes care of energy-vulnerable families, and the single electricity subsidy is available only to recipients of guaranteed minimum assistance (GMP), but not to those who are energy-vulnerable but have not exercised their right to GMP. These protections should apply to households that will not be able to pay their bills for a certain period, such as persons registered in the social protection system or facing a situation of risk of poverty (such as job loss, illness, death of an economic activity holder, etc.). This recommendation requires the activation of social workers and care should be taken to ensure that they are adequately trained.

08

Policy Recommendations for Heerlen and The Netherlands

The policy recommendations presented here are informed by the experiences of Heerlen during POWER UP project. The recommendations address challenges experienced by the partner when planning for a renewable energy project, including limitations of the regulatory framework, construction issues, and the difficulties of getting the buy-in of local stakeholders.

The Heerlen replicator, together with members of the POWER UP consortium, developed recommendations at both national (the Netherlands) and local (Heerlen) levels. These recommendations cover a range of issues, including feasibility, technical feasibility, and require the involvement of a range of stakeholders, such as local government, private homeowners, housing associations and energy cooperatives.

8.1

Overview of Recommendations

Local Recommendations for Heerlen
• Establish clear guidelines relating to the governance and leadership of energy communities. • Provide resources and support to facilitate the establishment of energy communities. • Encourage local stakeholder buy-in to energy community initiatives through awareness raising events.

National Recommendations for The Netherlands
• Raise awareness of opportunities and support related to the establishment of energy communities.

8.2

Local Recommendations

- Establish clear guidelines relating to the governance and leadership of energy communities.

  The governance structure of energy communities should be regulated, with clear agreements outlining the leadership of (and roles within) the energy community. If the energy community is led by the municipality, then the role of households experiencing energy poverty is limited to beneficiaries of electricity. If the energy community is led and managed by an energy cooperative, then the municipality can undertake the role of facilitator, by helping to identify and include households experiencing energy poverty. According to administrative law, the municipality cannot assume the function of an association. Therefore, the municipality works with an energy cooperative that can. This allows the municipality to limit its role to the public law tasks.

- Provide resources and support to facilitate the establishment of energy communities.

  Energy communities have been possible in the Netherlands since 1 January 2025. The newly established energy cooperatives, therefore, do not have sufficient resources/capital. They are often still small associations. As energy communities are shaped by their context, there is a need for locally coordinated resources and support to facilitate their creation. The provision of these resources and support mechanisms is coordinated by the municipality, which can act as an intermediary between energy communities and the various stakeholders in the area who have relevant expertise. In this capacity, the energy cooperative can assume its responsibility and risk.

- Encourage local stakeholder buy-in to energy community initiatives through awareness raising events.

  The success of energy communities depends on the involvement of local stakeholders. This buy-in can be supported by raising awareness of the opportunities for, and co-benefits of, energy communities within the local area. These awareness-raising events

can be organised by local energy cooperatives in cooperation with the municipality and the Woonwijzerwinkel (OneStopShop) in Heerlen

8.3

National Recommendations

- Raise awareness of opportunities and support related to the establishment of energy communities

  Following the recent legislative amendment to the Energy Act on 1 January 2025, which will allow for the possibility of forming energy communities, there is a need to raise awareness of their potential and benefits. To complement the legislative change, funding mechanisms should be put in place to support the creation of energy communities. For the time being, the municipality will retain control over the financing mechanism until energy cooperatives have sufficient financial resources of their own and they are able to bear some of their own risk. Later, small energy communities can evolve into larger social local energy companies while retaining local ownership.

www.socialenergyplayer.eu

#EUPOWER UP #socialenergyplayers

This project has received funding from the European Union's Horizon 2020 research and innovation program under Grant agreement No. 101033940