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Summary

This deliverable collects the four policy briefs produced within EnergyPROSPECTS:

Policy brief 1 explains the conditions to support empowered (sustainable and democratic) energy citizenship at a wider scale based on WP3 outcomes: *"Empowering Collective Energy Citizenship for a Sustainable and Democratic European Energy Transition"*.

Policy brief 2 highlights promising business and social innovation models for energy citizenship aiming at intermediary actors building on D4.5 and D5.3: *"Enhancing Energy Citizenship through Business and Social Innovation Models".*

Policy brief 3 targets national-level decision makers, experts and stakeholders building on D6.1: *"National Policy Measures and Best Practices for Citizen Engagement in the Energy Transition"*.

Policy brief 4 targets EU-level decision makers, experts and stakeholders, building mainly on WP5 outcomes: *"Energy citizenship: A Holistic Vision for Citizen Engagement in the European Energy Transition".*

This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 101022492.

Empowering Collective Energy Citizenship for a Sustainable and Democratic European Energy Transition

Karin Thalberg, Edina Vadovics, Luisa Losada Puente and Alicia Barbas

April 2024

This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 101022492.

Introduction

The European energy transition is speeding up. During the 2019-2024 European mandate, extensive regulatory progress has been made in the form of the European Green Deal[1] and through the energy and climate legislative package 'Fit for 55'[2]. As we enter the implementation phase of these policies, **understanding and supporting citizen involvement in the energy transition is becoming more and more important.** To this end, EnergyPROSPECTS has explored the potential of energy citizenship to contribute to the fulfilment of the EU's climate and energy objectives.

Energy citizenship provides a useful lens to capture the diversity of citizen engagement in the energy transition. The concept denotes different forms of civic involvement and engagement in the fields of energy production, distribution, and consumption, as well as in the governance of the energy transition. It can be practised at different levels of action, through different constellations of actors.

Within the project we have mapped 596 initiatives[3] that support or enable citizens to practise energy citizenship in different ways, we call these *energy citizenship initiatives*. 40 of these initiatives have been studied in-depth[4]. These initiatives include everything from retrofitting of buildings, energy sufficiency and efficiency practices in the home or within organisations, to citizen consultations and deliberative processes, renewable energy production, green energy suppliers, clean mobility initiatives and sustainable housing projects. In this policy brief, we particularly focus on collective forms of action.

The objectives of this policy brief are three-fold. First, we introduce the term **sustainability-driven energy citizenship**[5] and **highlight the potential of energy citizenship to contribute to a more just, equitable, democratic, and sustainable energy transition**. This is illustrated by good practice cases across the continent. Second, we **provide insights on how citizens can be empowered to take part in collective initiatives in the energy transition.** Third, it outlines policy recommendations on how policymakers can enable empowered and sustainable forms of energy citizenship.[6]

[1] European Commission. (2019). The European Green Deal. COM/2019/640 final.
[2] European Commission. (n.d.) Fit for 55: Delivering on the proposals.
[3] See the EnergyPROSPECTS database.
[4] The data collection was done through interviews and desk-based research. See the summary reports of the 40 cases: Vadovics, E. *et al.* (2024). Collection of energy citizenship case summary reports. EnergyPROSPECTS Deliverable 3.5, Part 2, European Commission Grant Agreement No. 101022492.
[5] For a full description of the methodology and analysis, see: Vadovics, E. *et al.* (2024). Meta analysis of energy citizenship detailed case studies. EnergyPROSPECTS Deliverable 3.5, Part 1, European Commission Grant Agreement No. 101022492.
[6] For the policy recommendations, go to page 24.

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How do energy citizenship initiatives contribute to the European energy transition?

There are several challenges associated with the transition towards a sustainable energy system, encompassing both social and environmental aspects of sustainability. [7] Environmental challenges are so far the best captured by EU energy and climate objectives, especially the need to move away from fossil fuels and non-renewable energy resources and to curb carbon emissions to ensure that we stay below 1.5°C of global warming. [8] Issues related to other planetary boundaries[9], such as biodiversity loss and sustainable use of freshwater, are also increasingly recognised, but there is a need for stronger and more holistic policy responses for an environmentally sustainable transition.

The energy price crisis has brought to light and worsened the underlying inequalities inherent in the prevailing energy system. Consequently, there has been a heightened emphasis on the social challenges associated with the transition towards a sustainable energy system, especially the need for increased justice and notably the alleviation of energy poverty[10]. Other challenges include democratic involvement in and transparency of the energy system, as well as increased participation of all citizens and actors, including disadvantaged groups in the energy system.[11] **Policymakers are becoming increasingly aware that these challenges need to be considered to ensure a successful implementation of the European Green Deal[12].**

Energy citizenship is a promising lens for policymakers to address both social and environmental dimensions of the energy transition. This is where energy citizenship initiatives come into the picture. Initiatives that enable and support citizens to practise energy citizenship do so in a variety of ways, with different objectives, and diverging types and numbers of actors involved[13]. Among the 40 initiatives studied in-depth, using a strong sustainability perspective[14], we have analysed how they integrate environmental and social sustainability challenges mentioned above into their activities and objectives[15].

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[7] Loorbach, D. et al. (2017). Sustainability Transitions Research: Transforming Science and Practice for Societal Change. Annual Review of Environment and Resources.
[8] See: European Commission. (n.d.). Fit for 55: Delivering on the proposals.
[9] Richardson, K. et al. (2023) 'Earth beyond six of nine planetary boundaries', Science Advances, 9(37).
[10] European Commission. (2023). Commission Recommendation on Energy Poverty. (EU) 2023/2407. 20 October.
[11] Loorbach et al. (2017).
[12] European Commission. (2021). Proposal for a Council recommendation on ensuring a fair transition towards climate neutrality. COM(2021) 801 final.
[13] The cases studied in the project do not claim to be representative but highlights the diversity of energy citizenship practised.
14 Strong sustainability was defined by drawing inspiration from Raworth's Doughnut of social and planetary boundaries.
[15] For a full description of the methodology and analysis, see: Vadovics, E. et al. (2024). Meta analysis of energy citizenship detailed case studies. EnergyPROSPECTS Deliverable 3.5, Part 1, European Commission Grant Agreement No. 101022492.

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Environmental sustainability

- Overall environmental sustainability: including energy production from fossil free and renewable sources, energy consumption practices, and recognition of other planetary boundaries.
- Recognition of the carbon limit and the climate crisis.

Social sustainability

- Energy democracy: implementing and/or working towards democratic governance of the energy system overall and/or within the case itself, including considerations and practices of democratic participation, inclusive, deliberative, and transparent decision-making processes.
- Citizen power and control: including the extent to which citizens exert effective control in decision-making processes.
- Equity and justice: affordability and accessibility for the larger public of the initiative, including consideration of energy poverty and marginalised groups.

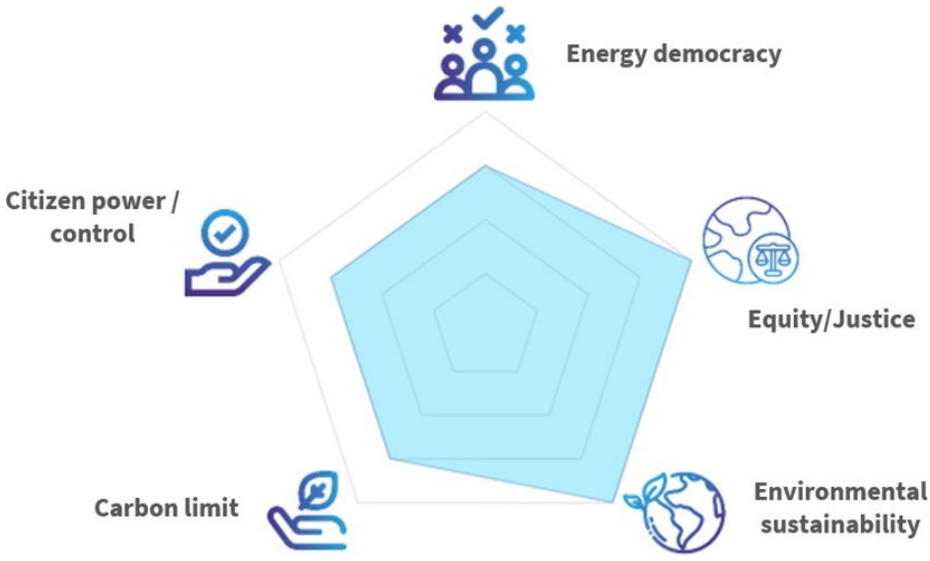

Figure 1. The spider chart illustrates the extent to which the initiatives integrate various sustainability aspects into their activities and objectives. Fuller charts refer to higher levels of sustainability. Charts that have higher scores on citizen power/control, energy democracy and equity/justice score higher on the social aspects, whereas charts that score higher on carbon limit and environmental sustainability score higher on the environmental aspects.

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Based on the extent to which the energy citizenship initiatives integrate the above aspects into their activities and objectives they have been classified into four groups: sustainability-driven energy citizenship, socially-driven energy citizenship, environmentally-driven energy citizenship and energy citizenship with a modest sustainability focus. It is important to note that these classifications are in no way a rating of the initiatives included in this policy brief. Rather, they are an indication of the diversity among energy citizenship cases and the different ways actors approach solving issues occurring in the energy system in their localities.

Sustainability-driven	Strong focus on both environmental and social sustainability
Socially-driven	Stronger focus on social sustainability
Environmentally-driven	Stronger focus on environmental sustainability
Modest sustainability focus	Comparatively modest focus on environmental and/or social sustainability

In this policy brief, the focus is on collective forms of action, such as: programmes, projects, partnerships, cooperatives, associations, and networks that contribute to the energy transition. Key stakeholders in these initiatives are municipalities, for-profit companies, non-profit companies, citizen groups and non-governmental organisations.[16] The next section will introduce good practice cases from each category and highlight in what ways they incorporate environmental and social sustainability into their activities.[17]

[16] See: Thalberg, K., Vadovics, E. and Szollossy, A. (2023). Synthesis brief 4: Taking stock of energy citizenship in Europe - 596 examples of how citizens engage in the energy transition. European Commission Grant Agreement No. 101022492.
[17] A list of all 40 initiatives analysed are found in Annex 2. For the full case reports, see: Vadovics, E. *et al.* (2024). Collection of energy citizenship case summary reports. EnergyPROSPECTS Deliverable 3.5, Part 2, European Commission Grant Agreement No. 101022492.

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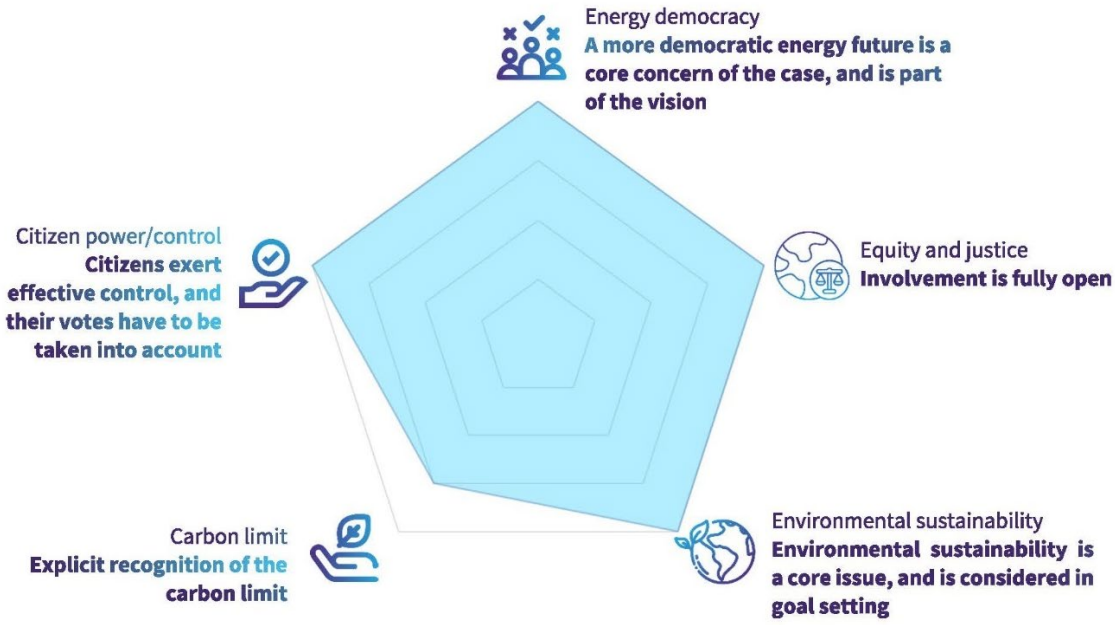
Good practice initiatives

Sustainability driven energy citizenship

Cargonomia (Hungary)

Cargomania is the formalisation of a pre-existing collaboration between three socially and environmentally conscious small enterprises operating in or near Budapest. Partners in the project include the Cyclomania (a do-it-yourself bicycle social cooperative), Zsamboki Biokert (an organic vegetable farm and sustainable agriculture community education centre), and Kantaa (a self-organised bike messenger and delivery company). The mission of Cargonomia is to contribute to sustainable transformation toward a socially and environmentally just future by questioning the dominant economic paradigm through practical, educational and research activities. Cargomania and its partners' activities aim to showcase how environmentally friendly and equity-based partnerships can create sustainable and meaningful community empowerment opportunities.



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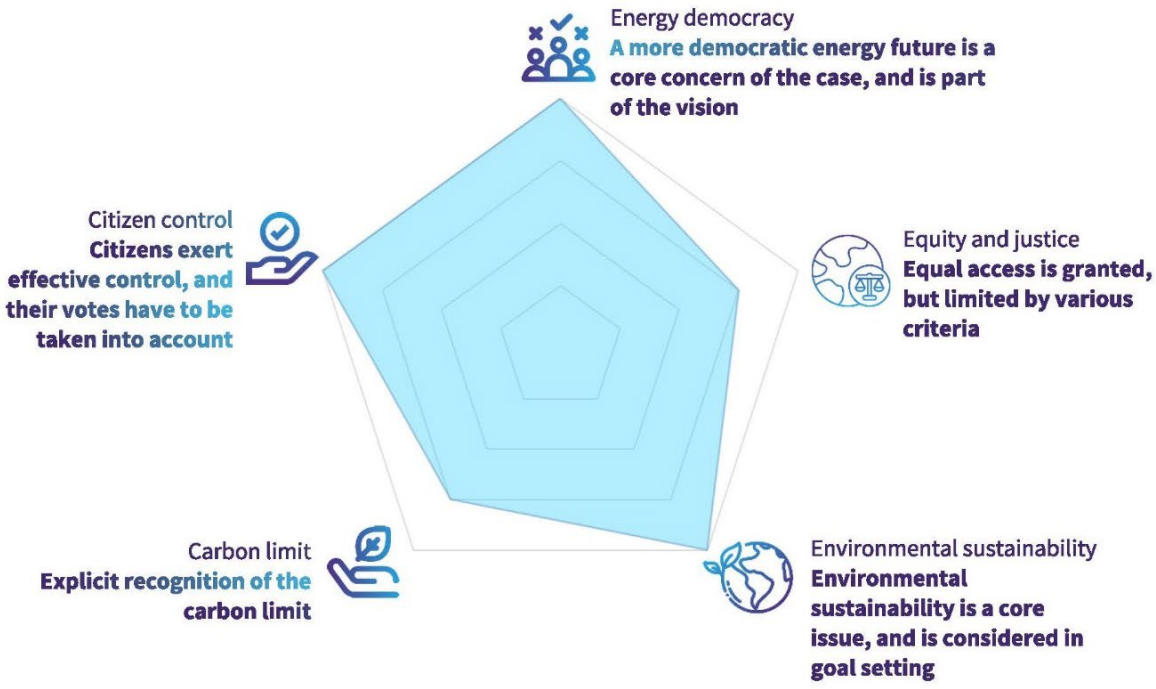
Energie Partagée (France)

Energie Partagée unites the citizen energy movement in France. The initiative unites and advocates; provides project assistance; and finances citizen-led renewable energy projects. To carry out these activities, Energie Partagée consists of three different legal structures: a cooperative, an investment tool, and an association. The three parts of the initiative are linked through the core values defined in their founding charter. By adhering to these values[18], local initiatives across France can benefit from the Energie Partagée citizen-energy label. Additionally, regional support networks provide local initiatives with training programs, a knowledge bank, sharing of best practices and assistance to access financing. Another core characteristic of the initiative is regular reflective dialogue, organised in different formats, aimed at defining what constitutes a sustainable and shared energy transition.



[18] Strong, diversified presence of public and private local actors in the project, democratic decision-making, making use of local competences and mobilising local communities, seeking to reduce environmental impacts and energy consumption, and ethical citizen-based financing.

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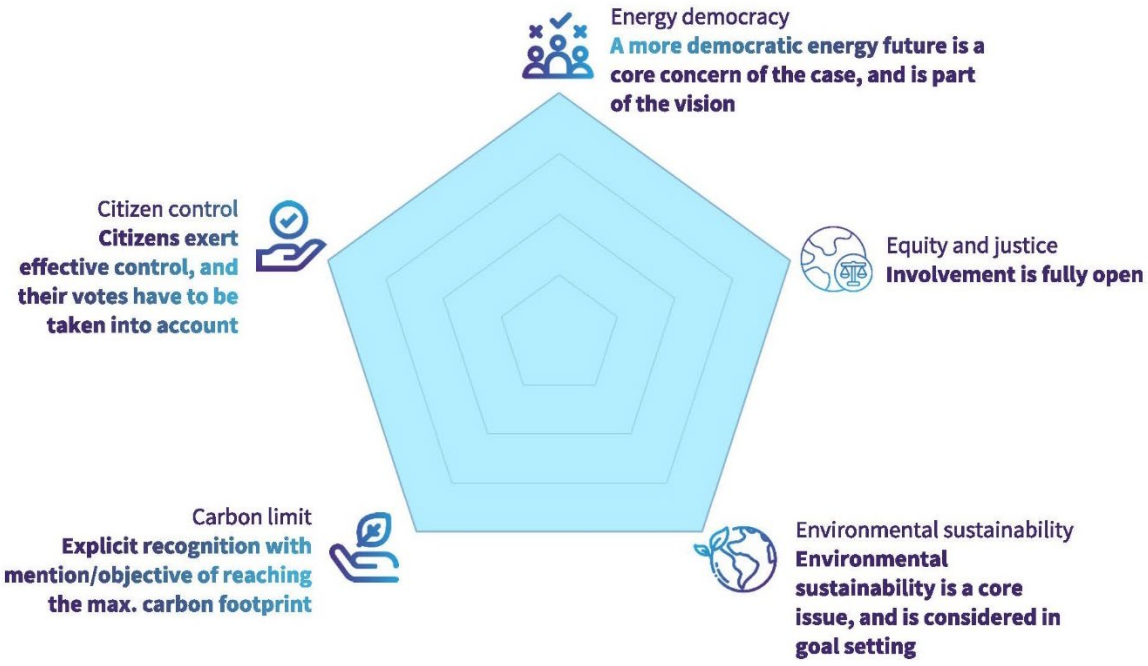
Solocal Energy (Germany)

Solocal Energy is a non-profit association that aims to address global climate change from the bottom up and involve people from all parts of society. In the initiative's vision, solar energy is central to the energy transition in cities. The organisation involves and directly empowers citizens and communities at the local scale through three pillars: balcony power plants, Do-it-yourself groups for photovoltaic installations, and neighbourhood climate circles. These activities are supplemented by various workshops and lecture formats.



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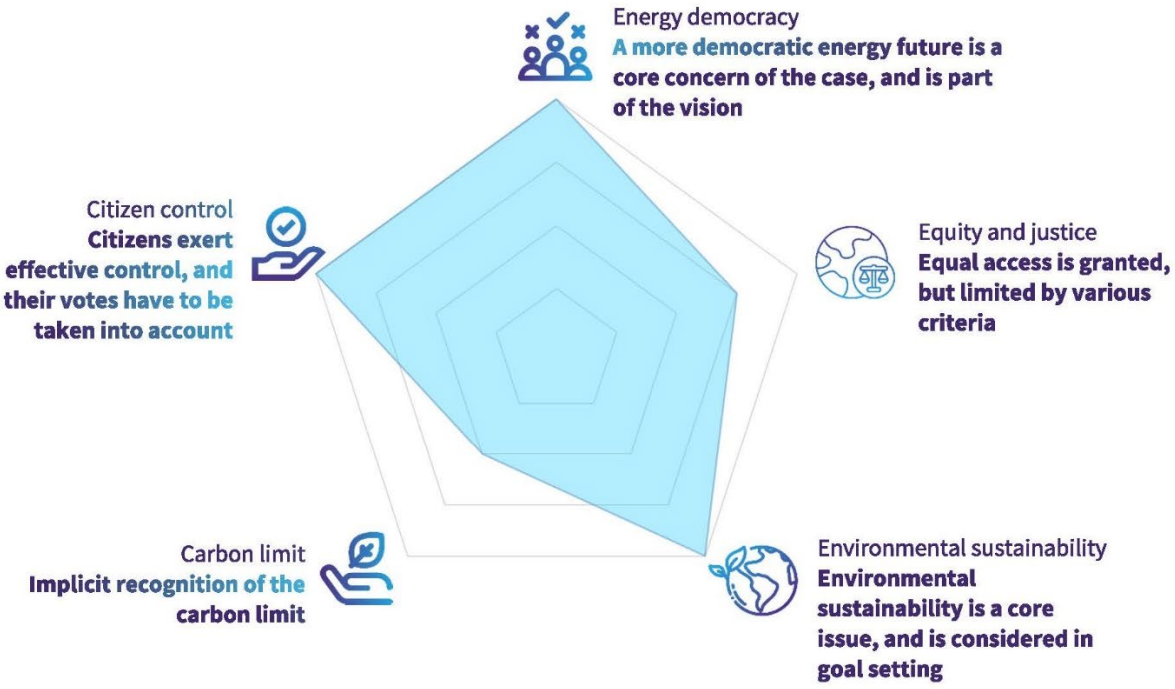
Socially-driven energy citizenship

Berlin Energy Citizen (Germany)

Berlin Energy Citizen (BürgerEnergie Berlin eG) is a cooperative that brings citizens together to work for a sustainable, climate-friendly, citizen-owned energy system in Berlin. The initiative is focused on citizen empowerment in the energy system at the city scale. It aims at developing involvement in citizen energy in Berlin and at empowering citizens in the energy transition, by fostering citizen commitment in the management of the publicly owned electricity network in Berlin and through renewable energy generation, notably balcony solar power plants and tenant electricity projects in cooperation with housing associations.



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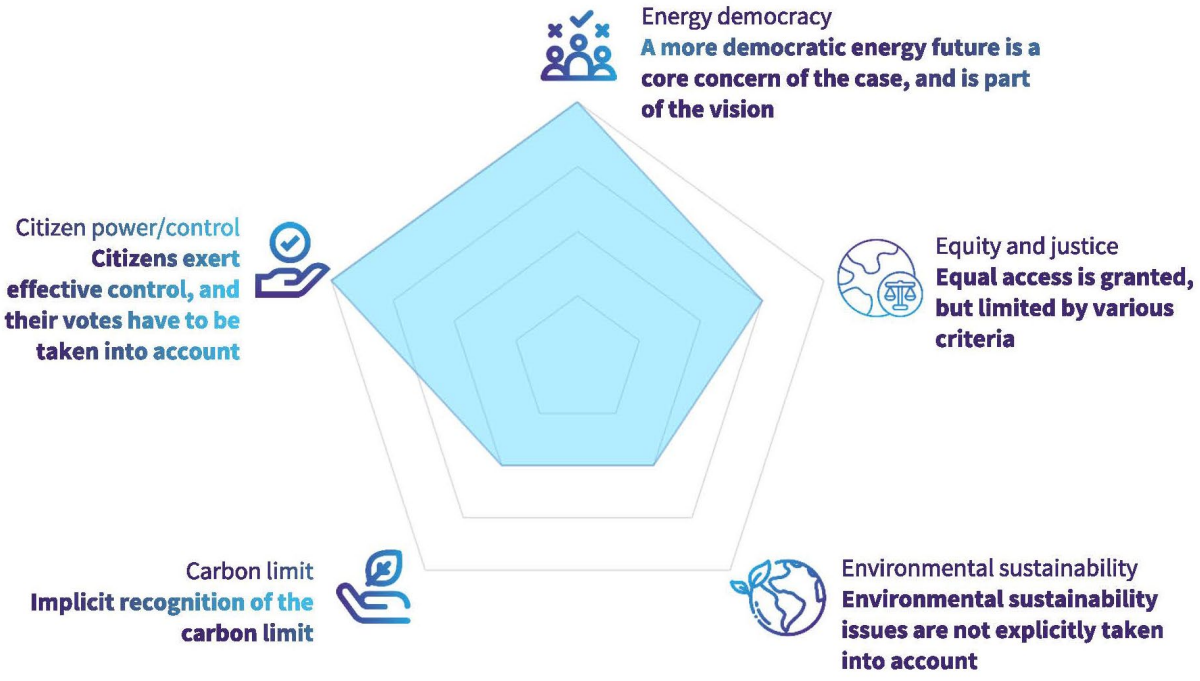
Energy Communities Tipperary Cooperative (Ireland)

The Energy Communities Tipperary Cooperative (ECTC) is a cooperative made up of 15 community groups in the Tipperary region. The aim is to empower citizens and communities to become more resilient by reducing the amount of money that leaves the local economies every year in the form of energy and fuel bills. To do this, ECTC facilitates renovation works to improve the energy efficiency of older houses. ECTC uses economies of scale to leverage funds under different governmental retrofit programs for several households together, instead for each household separately.



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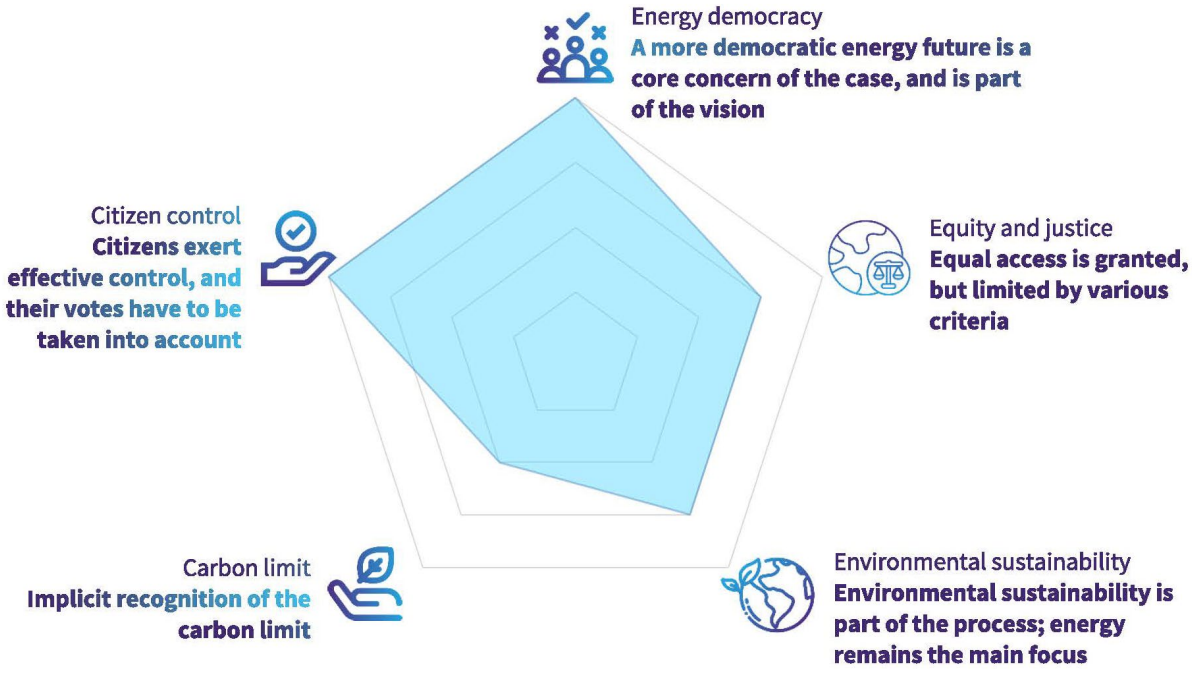
Loenen Energy (Netherlands)

Loenen Energy started with a group of enthusiastic citizens who won a competition for the best sustainable idea with 'the Energetic village' in 2013. With the prize money, they created the Loenen Energy Fund that now has funded over 300 projects. Two complementing organisational forms make up the initiative: a cooperative and a locally based organisation. One of the defining features of Loenen Energy is its community Virtual Power Plant[19] (cVPP) project. Emphasis lies on the community aspect and determines how the energy management system is used: what values does the community consider important, and for which activities is flexibility deployed? The implementation of the cVPP was a bottom-up process with workshops involving local citizens and various stakeholders.



[19] The virtual power plant consists of multiple interconnected small renewable energy sources (usually solar panels) and consumers (usually households) through an energy management system. The energy management system makes generation and consumption transparent and influenceable. See: Kemp, R. *et al.* (2023). The Role of ICT Platforms in Shaping Energy Citizenship. EnergyPROSPECTS Deliverable 4.2, European Commission Grant Agreement No. 101022492.

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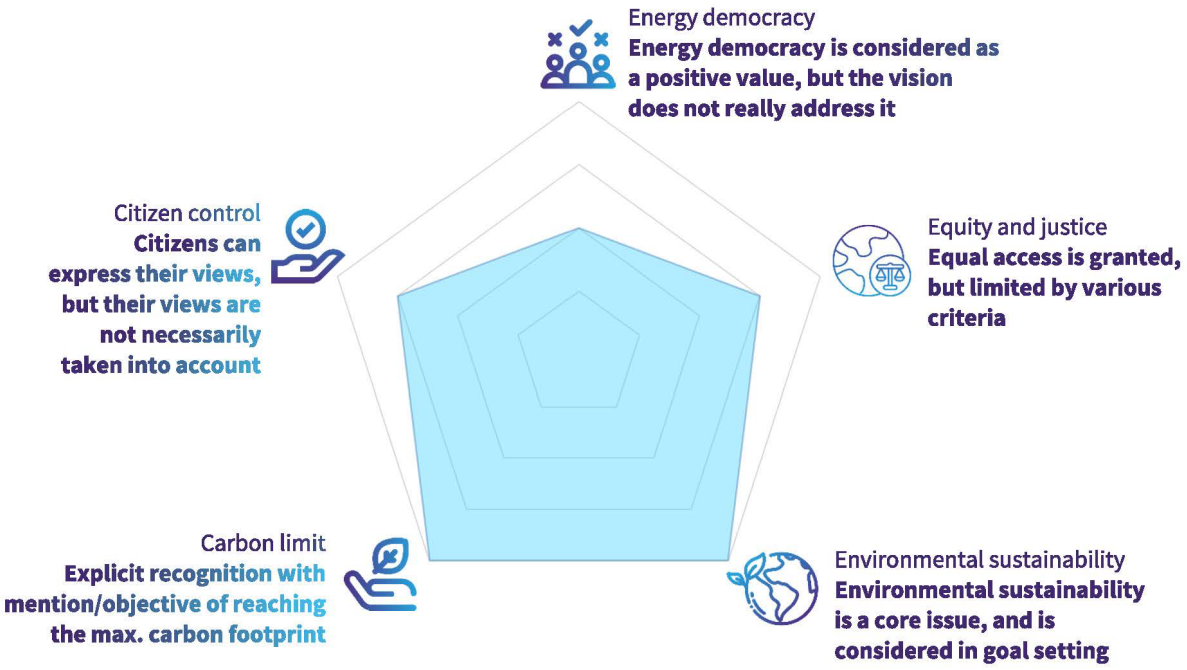
Environmentally-driven energy citizenship

BBL Home Renovation Campaign (Belgium)

Bond Beter Leefmilieu (BBL) is a Belgian umbrella organisation for Flemish environmental and nature associations, citizens, governments, and companies that aims to foster the transition to a sustainable society across a wide variety of topics. The initiative's activities include movement building, lobbying and awareness raising. The BBL Home Renovation Campaign is a recent project that especially targets the energy performance of homes and the directly associated issues of energy poverty and energy literacy. The initiative, but also the renovation campaign, pays attention to the relevance of their campaigns for average citizens. For example, the campaign includes an online self-assessment tool for energy renovations. To speed up the Flemish 'renovation wave' the BBL has additionally established a network of private, public, and non-governmental stakeholders.



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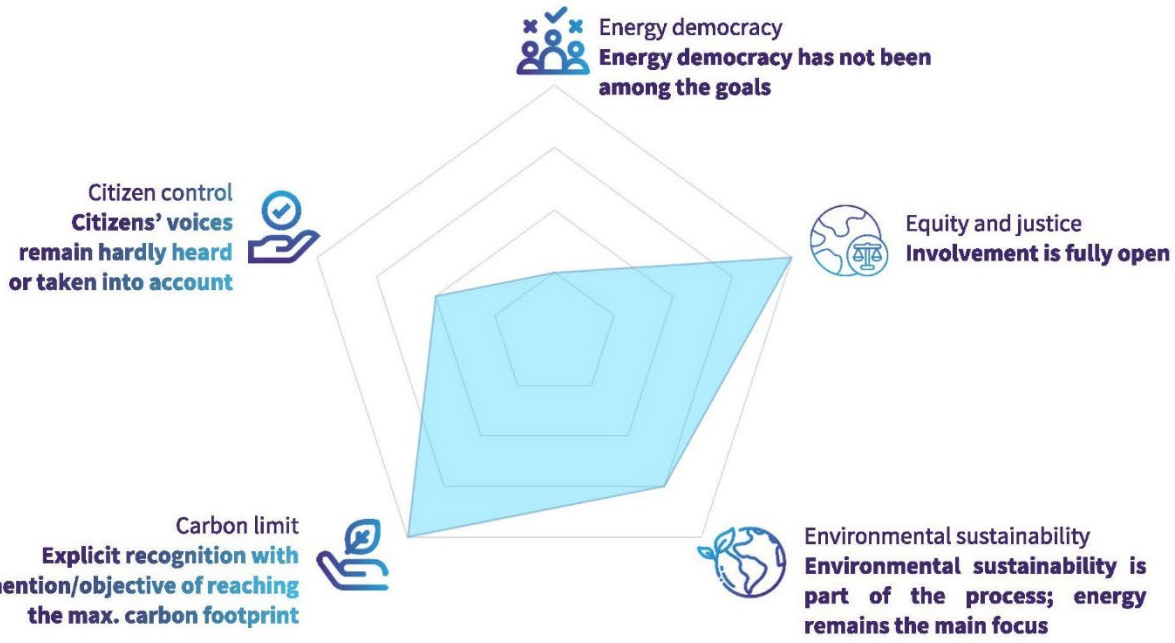
Student Switch Off Campaigns (Bulgaria)

Sofia University participated in the **Student Switch Off campaigns** organised within the SAVES2 project. One part of the campaign was an inter-dormitory energy saving competition that focused on a predefined set of activities, encouraging students to save energy in their dormitories. The other part of the campaign was directed towards students living in the private rental sectors and aimed at raising awareness of energy performance certificates, smart metres, and energy efficiency, thus improving energy literacy, helping students to reduce energy costs and their exposure to energy poverty. The campaigns represent collective efforts to reduce energy consumption and behavioural change.



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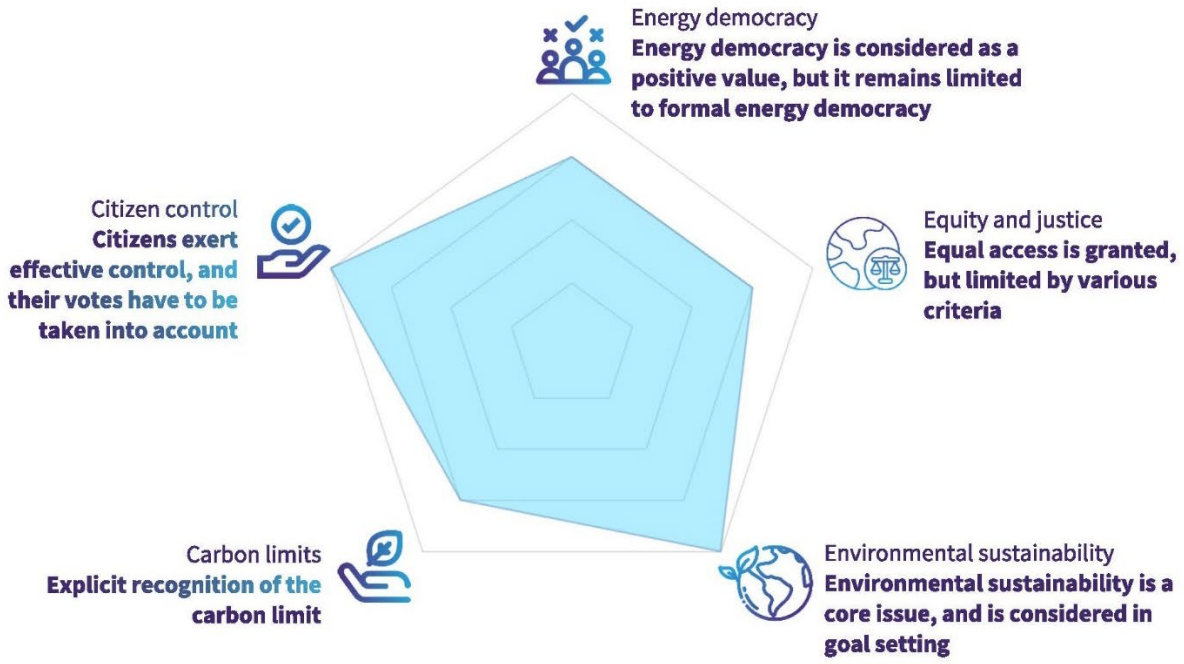
La Borda Housing Cooperative (Spain)

La Borda Housing Cooperative pursues a collective cooperative housing model where minimisation of environmental aspects is in focus. The houses are built with passive design or low-energy consumption, with local, decentralised, and self-managed renewable energy generation. Less energy and materials are consumed as major appliances and amenities are shared. La Borda aspires to become an alternative model to traditional public housing, affordable for people on low incomes. To this end, the initiative is interested in becoming a self-managed neighbourhood, in which social commitment and a different way of developing the city prevails.



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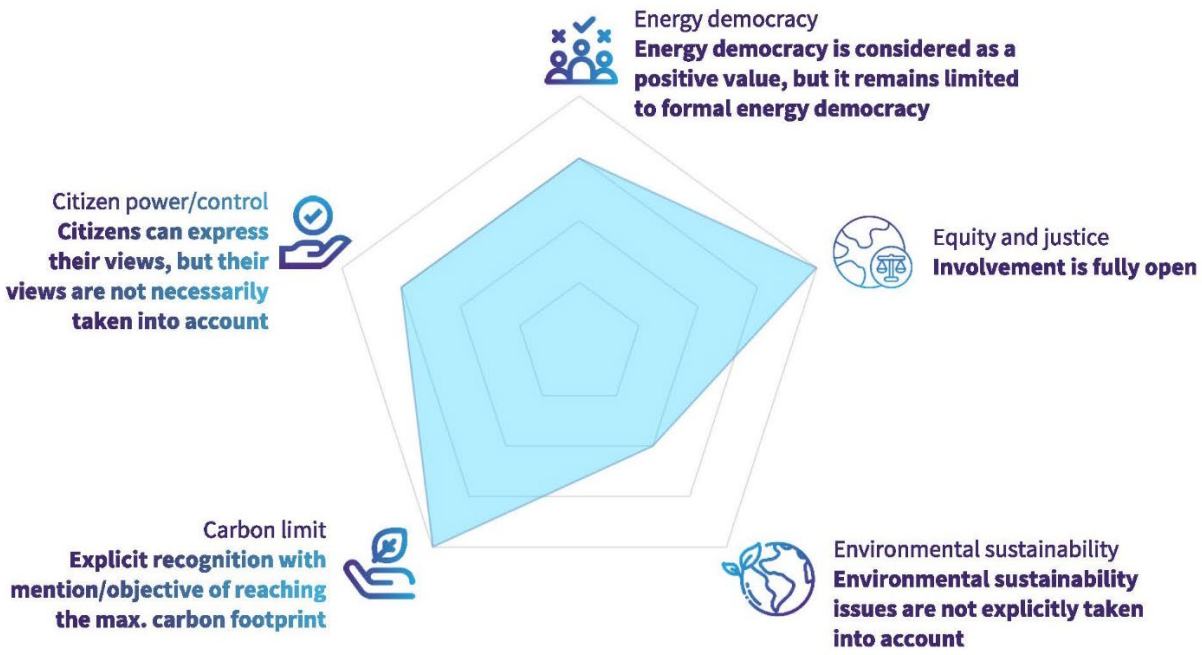
Energy citizenship with modest sustainability focus

EirGrid Public Consultation: Shaping Our Electricity Future (Ireland)

EirGrid, the state-owned electric power transmission operator in Ireland, has been tasked by the Irish government with preparing the electricity grid in anticipation of 80% renewable energy by 2030. To this end, EirGrid produced the 'Shaping Our Electricity Future' strategy, which presents four different approaches to grid development. For the development of the strategy, EirGrid implemented a nationwide consultation process in the form of several online workshops and an online consultation platform to improve engagement with the public and all stakeholders. The consultation process allowed individual citizens to voice their opinions and views on grid development, a key energy transition topic. Although not formally compulsory, the results of the consultation process have been considered in planning the development of the grid.



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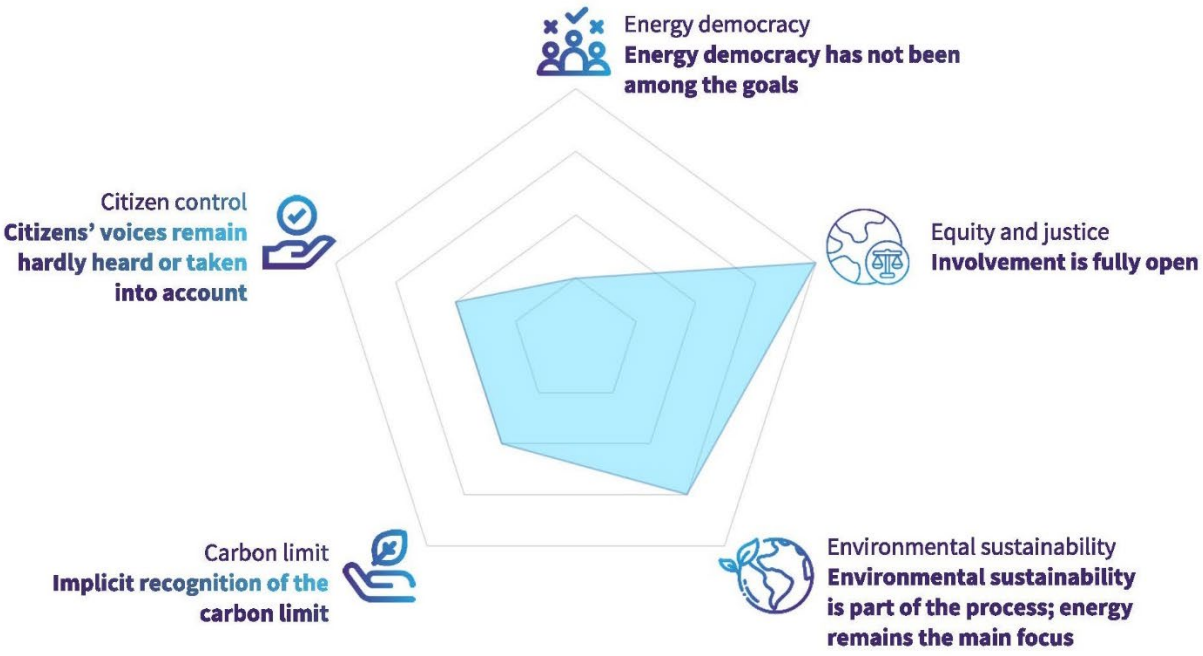
Hauts-de-France Pass Rénovation (France)

Hauts-de-France Pass Renovation was first launched as a pilot project by the region. After the pilot-phase, the initiative was continued and is operated by the regional one-stop-shop PSEE (the Regional Public Service for Energy Efficiency). The initiative enhances energy efficiency through energy retrofitting in private buildings, including both single-family homes and condominiums. Pass Renovation facilitates citizens throughout the whole renovation process and is based on an innovative *third-party financing* economic model. The economic model is financed by a dedicated public fund through which the PSEE advances the payment for renovation works to the beneficiaries. Once the renovation works have been carried out, the beneficiaries can make the repayment in whole or in part through the financial savings that the energy renovation has generated.



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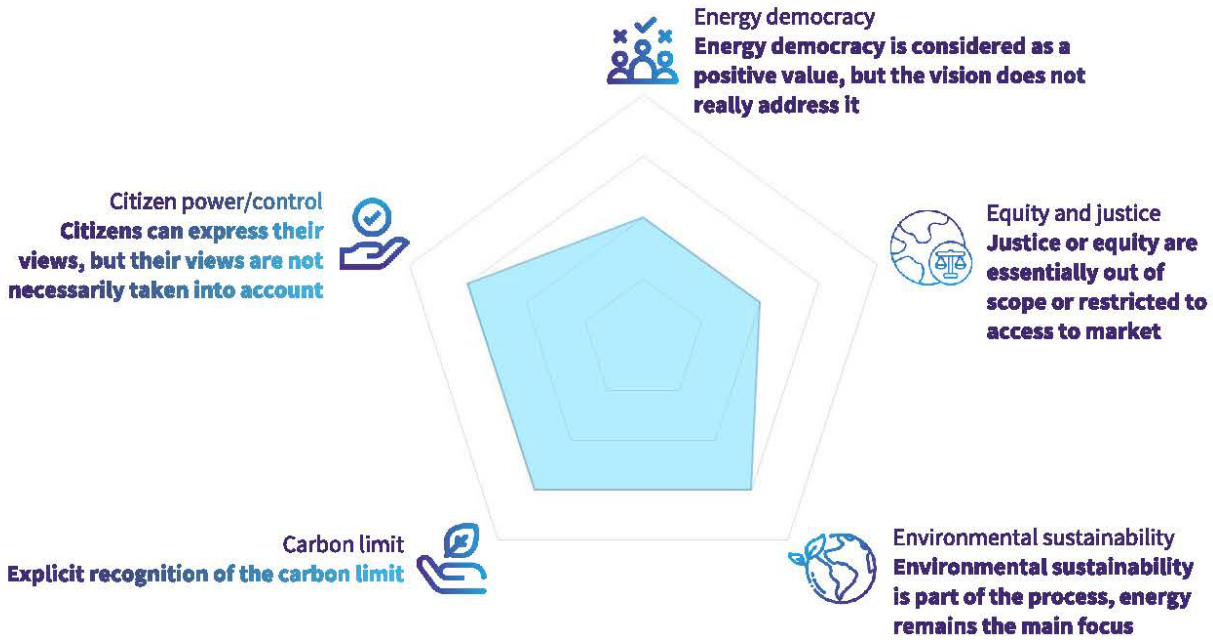
Off-Grid Renewable Energy DIY for Rural Development (Latvia)

The Off-Grid Renewable Energy DIY for Rural Development project, led by local action groups in the Baltic Sea Region (of which four in Latvia), aimed to collect and explore appropriate renewable energy technology solutions, develop prototypes and an open licence manual to promote decentralised renewable energy generation opportunities in rural areas. The project involved the installation and demonstration of alternative technologies on selected farms. Practical workshops were also carried out, where experts trained an interested rural audience on how to make and install renewable technologies, such as solar heat and photovoltaic panels. The initiative is a platform and community for smart solutions and ways to live with energy. Activities to close the gap in competencies and skills for utilising and installing renewable energy solutions have furthermore been carried out.



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How to empower citizens in the energy transition?

In the previous section we presented selected good practice initiatives that enable and support citizens to practise energy citizenship in a variety of ways, and how they incorporate environmental and social sustainability into their activities and objectives. Collective action initiatives have an important potential to contribute to a more just, equitable and sustainable energy transition in Europe. But what is needed for citizens to become involved in such activities and how can citizens be empowered through these initiatives to take part in the energy transition?[20]

What empowers citizens to act within the energy system?[21]

Autonomy to make decisions about one's own actions – "I am not constrained by any outer barriers".

At the individual level such barriers include:

- Financial resources.
- Time-availability.
- Knowledge and know-how.
- Access to reliable information and assistance.

Perceived capacity to make a difference by undertaken actions - "What I do makes a difference".

- Either at the individual level, for financial reasons, life quality, feeling of control or autonomy, or at the collective level, to contribute to sustainability objectives, community development, energy independence, etc.

Motivation to act and take part in the energy transition - "I am motivated to act".

- Individual motivations: Being inspired by/interested in the initiative, control, autonomy and choice, time availability, sense of belonging, pride, and sense of achievement.
- Community-based motivations: Community needs and shared interest in energy issues.
- Pro-environmental motivations: awareness of environmental problems and seeking out environmentally and/or socially sustainable solutions.

[20] Our in-depth analysis of the 40 initiatives included an analysis of empowerment as a process, see: Dumitru, A. *et al.* (2023). Empowerment Toolkit and Knowledge Repository. EnergyPROSPECTS Deliverable 3.6, European Commission Grant Agreement No. 101022492.

[21] Please note that these factors are not exhaustive.

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Why is collective action important? Energy citizenship initiatives as opportunity spaces

In our survey, a majority of respondents stated that they perceive their roles in the energy system is limited to actions within their private sphere: their individual actions or within their households[22]. This necessitates the expansion and reinforcement of efforts to convey the transformative potential of collective action in driving the energy transition forward. As demonstrated by the initiatives outlined in the last section, collective action can generate wider impact, by helping citizens to take on new roles and integrating responses to environmental and social sustainability challenges into their objectives and actions.

Energy citizenship initiatives provide concrete venues for action and alternatives to how energy is produced, consumed, owned, financed, and governed. They furthermore have an impact through their connections with different levels of government, by taking part in dialogues and collaborations with other actors, which can generate networks of best-practice sharing and even the creation of new partnerships.

> "[…] people can feel powerless in certain situations and say, 'I can't do anything'… [the initiative] is an enabler in the sense that they give solutions so that people can do things by themselves - acquire knowledge, train, and increase skills and know-how to do things concretely - and take decisions that concern them, personally and collectively" (Interview, Energy cooperative).

Many of these initiatives serve as opportunity spaces for learning, making citizens feel heard, and providing the feeling that they can contribute. It is important that these opportunity spaces are open and accessible, where different types of contributions are possible and valued. Energy citizenship initiatives can do this by:

- Offering ways to participate without monetary contribution, such as preparing the meeting room, providing food and drinks, taking notes, sending out information, etc., and allowing differentiated monetary contributions which can reduce the participation gap for low-income and vulnerable groups.

- Offering possibilities to attend meetings when possible and provide opportunities to bring children, timing participation around holidays, etc., helping to facilitate work-life balance.

[22] 57% out of 10 000 respondents. Hajdinjak *et al.* (2024). Analysis of the online survey. EnergyPROSPECTS Deliverable 5.4, European Commission Grant Agreement No. 101022492.

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> "People lose the fear of contact a bit and they get more confidence in themselves. Since they have had the experience [they think]: 'I can do something that I did not think I could do before', they might now dare to do something else." (Interview, Non-profit association)

Collective initiatives that enable citizens to practise energy citizenship can generate motivation for action, help to overcome barriers at the individual level, and improve the sense of capacity to make a difference. For example, by:

- Allowing differentiated types of involvement, and thresholds related to knowledge, skills, and time-availability, as outlined above.
- Providing access to reliable information and technical support.
- Creating spaces for learning: democratic decision-making, advocacy, community-building, knowledge and skills related to the energy system (technical, legal, administrative, etc.) and social and environmental sustainability, etc.
- Providing avenues for dialogue and debate.
- Enhancing energy literacy through the practical experience of participating in the energy system. For example, the act of individuals installing solar panels both contributes to enhancing renewable energy supply and raises awareness about overall energy consumption. Solocal Energy provides a concrete example of this by mobilising citizens in do-it-yourself balcony solar panel installation circles, as well as for climate awareness and action, which improves energy literacy and turns individual acts into a collective endeavour.
- Pooling financial resources, supporting citizens, groups, or communities with knowledge and know-how to access government grants, and/or providing innovative financial instruments to ease the burden of repayment.

This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 101022492.

Recommendations: Empowering collective energy citizenship for a democratic and sustainable European energy transition

Collective energy citizenship initiatives face a myriad of challenges that hinder their growth and potential to contribute to a more just, democratic, and sustainable energy transition. In this section we outline key points of intervention and introduce concrete recommendations for policymakers at different levels to unleash the potential of collective action, especially pertaining to strengthening social and environmental sustainability aspects of collective energy citizenship initiatives.

Increasing public engagement in the energy transition overall

Declining public engagement limits the success of energy citizenship initiatives. There are furthermore considerable challenges in reaching citizens with limited knowledge, financial resources, and time. These barriers could partially be overcome by:

- **Boosting perceptions of possibilities to engage collectively in the energy transition** by sharing examples of collective energy citizenship initiatives that exist and what benefits they entail. Traditional media outlets such as radio, newspapers (online and offline) as well as TV, at different territorial levels could be used to raise awareness and disseminate energy transition information.[23] *[Local and regional authorities]*
- **Strengthen stakeholder and citizen dialogues in energy and climate governance and decision-making.**
    - Member States should properly implement and increase their ambitions regarding stakeholder dialogues mandated under article 11 of the Governance of the Energy Union regulation (2018/1999). This could be done through the institutionalisation of Citizen Climate Assemblies together with fora for dialogue at different levels of government where a variety of stakeholders can be heard, such as, local, and regional authorities, civil society organisations, businesses, investors, and other relevant stakeholders. Good practices in relation to the partnership principle that is required to access EU cohesion funds should be followed. *[Member States]*
    - Creating conducive conditions for the involvement of citizens with limited knowledge, financial resources, and time. Processes of deliberation and discussion could be integrated into the daily routines of citizens whose voices are not well-represented in public debates and decision making. Conversations and choices regarding the energy transition could be integrated into workplaces, childcare facilities, and various social services, where they can be gathered and subsequently contribute to decision-making processes. *[Member States, local and regional authorities]*

[23] See, Thalberg, K. *et al.* (2023). Feedback report on knowledge exchange workshops. EnergyPROSPECTS Deliverable 6.1, European Commission Grant Agreement No. 101022492.

This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 101022492.

Creating enabling conditions for engagement in energy citizenship initiatives

Many energy citizen initiatives face challenges due to reliance on volunteers with limited availability, and constrained expertise, that can hinder the progress, growth, and impact of their actions. Moreover, **insufficient funding and government support**[24], further jeopardises long-term viability.

- **Create and/or support networks at the relevant territorial level to support capacity-building and scaling of energy citizenship initiatives.** The regional support networks that Energie Partagée set up in France is a good example in this regard (see the previous section). They offer training programs, a knowledge bank, sharing of best practices and support to access financing. *[Member States, local and regional authorities]*
    - This recommendation could be further strengthened by dissemination of good practice cases where local and regional authorities successfully collaborate with citizen-based organisations, civil society, and private actors on implementing collective energy actions.
- **Implement and support mentorship programs for volunteers in energy citizenship initiatives** with training and capacity-building opportunities to enhance their skills and commitment. *[Member States, local and regional authorities]*
- **Earmark EU-funding and technical assistance for citizen-based organisations and initiatives with strong commitments to sustainability,** for example in initiatives like the Green Assist project and the Energy Poverty Advisory Hub. *[European Commission]*

Supporting collective energy citizenship initiatives to involve and benefit more citizens

Certain groups are overrepresented within energy citizenship initiatives. These groups include men, citizens with higher levels of education and income, as well as a with non-migrant background. To empower citizens beyond the 'usual suspects' to take part in energy citizenship initiatives, it is important for policy makers to support inclusive and effective outreach strategies.

- **Include support for outreach and inclusion in existing technical assistance offers** from relevant EU initiatives such as the Energy Communities Repository, Rural Energy Community Advisory Hub and the Energy Poverty Advisory Hub. This could include the development of a resource base on best-practices on benefit-sharing and improving energy literacy beyond the initiative and on the inclusion of hard-to-reach citizens (some of these examples are listed in the previous part of the brief). *[European Commission]*
- **Develop strategies for boosting energy literacy within and beyond energy citizenship initiatives through "Next Door Energy Literacy"**, i.e. by operating on a citizen-to-citizen level to raise interest and appeal to citizens' everyday lives and challenges. *[Member states, local and regional authorities]*

[24] Overall, local, and regional authorities are key actors in supporting collective energy citizenship initiatives. To do this they need increased human resources, competencies, and financial capacities to support energy citizenship. See the Sun4All project for comprehensive recommendations aimed at local and regional authorities.

This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 101022492.

Annex 1. Examples of environmental sustainability integration from our case studies[25]

Overall environmental sustainability, energy sources, energy use, and planetary boundaries

- Renewable energy consumption, production, or distribution.
- Efficiency-related focus and objectives.
- Sufficiency-related focus and objectives.
- Combining efficiency and sufficiency.
- Including changes of behaviour and practices.
- Aiming for overall reduction of environmental impacts.
- Transparent measuring, monitoring, and reporting on environmental impacts.
- The focus is not limited to energy-related environmental impacts, but includes other planetary boundaries such as biodiversity loss and freshwater scarcity, etc.
- Systematic approach when dealing with environmental impacts.
- Recognising global environmental issues and connecting them to local solutions.
- Aiming to satisfy needs in a sustainable way.
- Considering environmental impacts in all decisions made.
- Recognising that nature has values in its own right.
- Accepting responsibility for causing environmental harm.

Climate change and 1.5° carbon limit

- Showing awareness of climate change issues.
- Explicitly recognising the carbon limit according to the Paris agreement.
- Recognition of the carbon limit paired with concrete (science-based) reduction targets.
- Using a calculation and/or monitoring system to keep track of their environmental and climate impact (e.g., carbon footprint).
- Linking plans, targets, and activities to local and national climate objectives and/or energy strategies.
- Aiming to educate and increase the capacity of others in recognising and reducing their carbon footprints.

[25] All the examples listed in Annex I can be found in Vadovics, E. et al. (2024). Meta analysis of energy citizenship detailed case studies. EnergyPROSPECTS Deliverable 3.5, Part 1, European Commission Grant Agreement No. 101022492.

Examples of social sustainability integration from our case studies

Energy democracy

- The democratic functioning is not limited to the initiative but has an external impact.
- Creating or proposing to create new types of organisations/bodies to promote and/or ensure democratic operations (e.g. Citizen Council).
- Practising self-governance.
- Going beyond representative democracy: through commitments to and/or practices of horizontal and inclusive modes of decision-making and direct democracy.
- Creating a quality assurance label for energy democracy.
- Creating a model that can be replicated and acting as a role model.
- Enabling or expanding individual/collective ownership of energy infrastructure.
- Creating decentralised, locally controlled production and consumption systems.
- Initiating and/or participating in public decision-making processes.
- Making the voices of various groups and solutions heard in such processes.
- Providing a forum for deliberation on energy and/or climate change.
- Improving accountability in energy production and governance.
- Showcasing and spreading information on energy democracy and its tools/methods.

Citizen power and control

- Enabling all actors to participate in the initiative, including those in energy poverty (through targeted communication efforts, training, support, differentiated/low/no membership, or service fees, etc.).
- Ensuring and defining citizen control in founding documents.
- Making different levels of engagement possible, and creating different roles related to participation, decision-making and in the division of responsibilities.
- Having an impact on the wider political and decision-making system.
- Creating or enabling the creation of citizen-controlled and managed decision- making structures and processes.
- Ensuring and creating structures for transparent operations.
- Operating in a cooperative form, which essentially promotes citizen control through the strong involvement of its members.

Equity and justice

- Sharing and/or giving power to members.
- Establishing inclusive governance structures.
- Ensuring that all voices are heard, including marginalised voices in the energy system.
- Ensuring accessibility of what the case offers, i.e. sharing the benefits of the initiative (e.g. access to renewable energy, access to low-energy housing, etc.).
- Defining access to energy as a basic need.
- Allowing access to energy to those in need (e.g. when access to power is turned off).
- Establishing co-ownership of energy or housing infrastructure.
- Considering solidarity and burden-sharing in energy production and consumption.
- Ensuring and enabling diversity in membership.
- Awareness of historical responsibility for climate change.
- Awareness of the rights of future generations to basic energy needs and a liveable planet.

Annex 2. List of initiatives studied in-depth

Sustainability-driven energy citizenship

Extinction Rebellion Etterbeek (Belgium)

LaVidaVerde (Germany)

Solocal Energy (Germany)

GoiEner Taldea (Spain)

Railcoop (France)

Shared Energy (France)

Cargonomia (Hungary)

From the Community Energy Programme to Community Energy Service (Hungary)

TreeDependent (Hungary)

Aran Islands Energy Cooperative (Ireland)

Citizens' Assembly on 'How the State can make Ireland a Leader in tackling Climate Change' (Ireland)

Socially-driven energy citizenship

Berlin Energy Citizen (Germany)

Trégor Energ'éthiques (France)

Biobriquettes programme (Hungary)

Energy Communities Tipperary Cooperative (Ireland)

Galway Energy Co-operative (Ireland)

Loenen Energy (Netherlands)

National Association of Active Residents (Netherlands)

Weert Energy (Netherlands)

Environmentally-driven energy citizenship

BBL Home renovation campaign (Belgium)

Hydro Electricity Ourthe and Sambre (Belgium)

Student Switch Off campaigns (Bulgaria)

Naturstrom AG (Germany)

La Borda: Housing cooperative (Spain)

Zsuzsanna Hojtsy-Keresztény - Energy Neighbourhoods energy master, local change maker (Hungary)

Social media influencer "Edgar Fresh" (Latvia)

Drechtsteden Energy (Netherlands)

Energy citizenship with modest sustainability focus

Energy Transition of City of Burgas: Going Smart and Sustainable (Bulgaria)

Som Energia – Green Energy Cooperative (Spain)

Nagypáli, the renewable energy village (Hungary)

EirGrid Public Consultation: Shaping Our Electricity Future (Ireland)

Installation of solar heat panels in multi-apartment building, complementary with energy efficiency improvement of the building (Latvia)

Reindonk Energy (Netherlands)

Energy efficiency mission ULB (Belgium)

Bike Evolution (Bulgaria)

Student Energy Teams (Bulgaria)

Couso's project (Spain)

Hauts-de-France Pass Rénovation (France)

Association "City for people" (Latvia)

OFF-GRID: Renewable energy DIY for rural development (Latvia)

Detailed case reports for all listed initiatives are available online.

Enhancing Energy Citizenship through Business and Social Innovation Models

Karin Thalberg and Ariane Debourdeau

April 2024

This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 101022492.

Introduction

EnergyPROSPECTS is a Horizon 2020 project that examines **the potential of energy citizenship to contribute the European energy transition.** Energy citizenship is understood as forms of citizen involvement and engagement in the energy system that pertain to the development of a more sustainable and democratic energy system. It can be practised at different levels of action, through different constellations of actors, in the fields of energy production, distribution, and energy consumption, and in the governance of the energy/climate transition.

This policy brief specifically concentrates on *business and social innovation models* (BSIMs) as instrumental tools to promote the development of energy citizenship across different scales. The brief showcases eight initiatives with innovative BSIMs led by public authorities, non-governmental organizations, and local communities, that support citizen involvement in the energy transition in different ways. The featured good practice initiatives have been chosen based on their endurance over time and the way they integrate environmental and social values that enhance energy citizenship into their BSIMs. These values include citizen participation and control, democratic governance, and social inclusion and justice, all embedded into the core of their functioning.

The aim of the policy brief is twofold. First, to **provide inspiring examples** that could be reproduced elsewhere and **outline concrete strategies** for how energy transition initiatives and intermediary actors could further strengthen energy citizenship in their activities and functioning. Second, to **offer concrete policy recommendations** on how policy makers at different levels can create an enabling environment for energy citizenship to thrive.

This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 101022492.

Advancing energy citizenship through innovative business models with social and environmental impact

This policy brief highlights eight business and social innovation models (BSIMs)[1] that are characterised by their ability to endure over time and their success in enhancing energy citizenship[2]. To evaluate how energy citizenship is enhanced by these initiatives, we have studied how environmental, social, and democratic values are integrated into the initiatives' BSIMs and how these values support the initiatives' viability over time.

Therefore, in addition to the environmental values and concrete objectives that contribute to a more sustainable energy system, the following were explored as core values to enhance energy citizenship:

- the participation of citizens and collectives of citizens, including the possibility to take part in decision-making processes (citizen participation and control);
- transparency, fairness, and openness (democratic governance);
- affordability and accessibility for the larger public (social inclusion and justice/equity).

The eight good practice cases highlight different kinds of BSIMs that work within the domains of energy retrofitting, sustainable local planning, citizen-led renewable energy development, environmentally conscious lifestyles, and support for neighbourhood and community-led energy transitions.[3] Moreover, the eight cases are led by different types of actors: public authorities (publicly led), non-governmental organisations (organisationally based) and local communities (community-based). In the next section, we present the eight cases.

[1] Debourdeau, A. and Markantoni, M. (2023). Viable business models and strategies for growth and expansion. The economic-transactional aspects of energy citizenship cases. EnergyPROSPECTS Deliverable 4.5, European Commission Grant Agreement No. 101022492.

[2] For a development on the methodology, see: Debourdeau, A. and Markantoni, M. (2023). Models' scalability and potential strategies to advance energy citizenship. EnergyPROSPECTS Deliverable 5.3, European Commission Grant Agreement No. 101022492.

[3] For more inspiring initiatives that enable energy citizenship, see: Vadovics, E. *et al.* (2024). Collection of case summary reports. EnergyPROSPECTS Deliverable 3.5, Part 2, European Commission Grant Agreement No. 101022492.

This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 101022492.

Good practice BSIMs across Europe

Publicly led BSIMs

Hauts-de-France Pass Renovation, France, 2013-present

Hauts-de-France Pass Renovation was first launched as a pilot project by the region. After the pilot-phase, the initiative was continued and is operated by the regional one-stop-shop PSEE (the Regional Public Service for Energy Efficiency). The BSIM enhances energy efficiency in private buildings, including both single-family homes and condominiums, and is based on an innovative *third-party financing* economic model. The economic model is financed by a dedicated public fund through which the PSEE advances the payment for renovation works to the beneficiaries. Once the renovation has been carried out, the beneficiaries can make the repayment in whole or in part through the financial savings that the energy renovation has generated. At the time of its initiation, there was a strong political will by certain regionally elected representatives to pilot the financing model and support households' access to energy renovation.

Business and social innovation model: Pass Renovation relies on an innovative economic model through which the region can provide financial assistance to households - particularly those with limited self-financing capacity - so that they can engage in deep energy renovation works. The financial mechanism consists of: 1) pre-financing of government subsidies and loans; 2) taking the energy savings generated by the renovation works into account in the repayment plan; 3) long repayment periods (15 to 25 years depending on the work carried out); 4) collective loans to condominiums, which are currently not widely distributed by the banking sector. Key to its operation is the process of economisation of energy renovation at the regional scale, which involves a complex ecosystem composed of public institutions, regional and local authorities and more than 700 local companies and craftsmen that carry out the renovations.

Energy citizenship values: By granting access to energy renovations, especially for households at risk of energy poverty, social inclusion is a core aspect of the BSIM. in terms of democratic governance, citizens are not directly included in the decision-making processes, but there is transparency in how the public funding is allocated and how the initiative functions.

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Nagypáli - The renewable energy village, Hungary, 1996-present

An ambitious mayor was elected in the rural village Nagypáli in 1996. At this time, Nagypáli was a settlement in the Hungarian countryside on the brink of extinction without an attractive profile for residents or local businesses. The *Green Road* development plan was launched, including a variety of initiatives, especially related to renewable energy.

Business and social innovation model: The municipality set-up a strong organisational support system through non-governmental entities such as the Foundation for the Village and the Tender Management Office in order to carry out local projects. Other key actors in the municipality's BSIM are businesses, primarily from the transportation sector. The municipality attracted the businesses through tax reductions to create a financial basis for the desired developments. The business settlement resulted from bilateral agreements between the municipality and each potential enterprise. In return for the tax reduction, the businesses were asked to invest or in other ways provide a benefit for the village. Other examples include sponsorships, the exchange of ideas, the creation of networks and the organisation of events. Through the mutually beneficial relationships between the municipality and the businesses, the BSIM has a strong local anchoring that has brought with it long-term innovative changes for the village that reach beyond political interests.

Energy citizenship values: The municipally driven BSIM includes strong features of democratic governance. Local citizens are involved from the beginning of the development processes, and are given the opportunity to express ideas, problems, and suggestions through different fora. Citizens are furthermore involved in the implementation process and are partners in various activities to promote environmental awareness.

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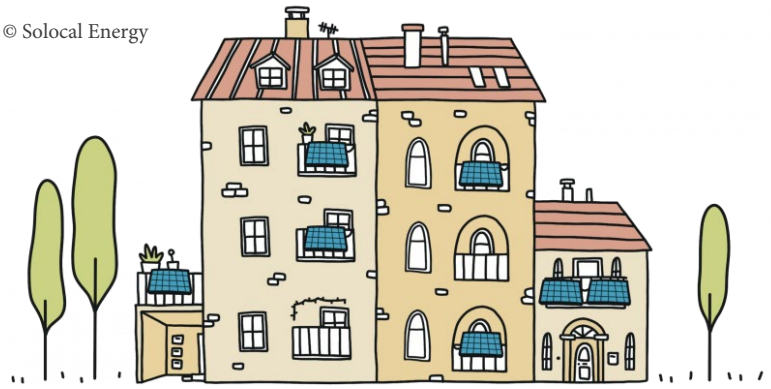
Organisationally based BSIMs

Local/regional scope

Solocal Energy, Germany, 2020-present

Solocal Energy is a non-profit organisation that involves and directly empowers citizens at the local scale through three pillars: balcony power plants; Do-It-Yourself (DIY) groups for photovoltaic installations; and neighbourhood climate circles. Core values of solidarity, justice, sustainability, and personal responsibility are at the heart of the BSIM. In the initiative's vision, solar energy is central to the energy transition in cities, representing the most important building block for a decentralised energy transition in cities and enabling a solidarity-based economy strongly oriented towards the needs of the people.



Business and social innovation model: The first of Solocal's three pillars, the instalment of balcony photovoltaic plants, provides a source of income and leverage to empower citizens and communities from the bottom-up, while also financing the development of the two other pillars (the DIY groups and the neighbourhood climate circles). Networking activities are a decisive part of the BSIM. Firstly, to involve citizens in Solocal's social entrepreneurship related to DIY and energy literacy. Secondly, to establish local and regional partnerships (including the Kassel municipality) to increase the initiative's legitimacy. Nonetheless, Solocal is facing difficulties due to the hybrid nature of its activities. As a non-profit organisation, it does not have the right to undertake economic activities. The initiative therefore faces constant uncertainty and risks having its associative status removed due to the economic revenue derived from the instalment of photovoltaic plants. The legal status is, however, a conscious choice rooted in the belief that Solocal should belong to the community rather than to a few individuals.

Energy citizenship values: Membership is open to all, with various possibilities according to the time and financial resources of the members. Therefore, financial capacities are taken into account by the association, which adapts its offers accordingly, either for the membership or for the installation of balcony PV plants. The basic democratic principles applicable to associations are guiding decision-making processes, in which each member has one vote.

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Local/regional scope

Hydro Electricity Ourthe and Sambre, Belgium, 2003-present

Hydro Electricity Ourthe and Sambre (HOSe) is a cooperative company created by extensive collaboration between ten RESCOOP cooperatives. The company operates several hydro-power plants on the Ourthe and Sambre rivers, led by the Emissions Zero cooperative and the private shareholder Hydro-B, which provides technical expertise. HOSe is committed to renewable energy and sustainability. Hydroelectricity is seen as a creative nature-based solution, through which the BSIM brings Hydro-B close to the cooperatives.

Business and social innovation model: The BSIM showcases an innovative organisational form; a cooperative of cooperatives together with a private company. HOSe is set up as a cooperative company with limited liability. It is owned 50/50 by Hydro-B and the cooperatives that together have more than 15,000 citizen shareholders. The cooperative company has been set up to develop and operate the new hydroelectric power stations. In the HOSe business model, the produced electricity is sold to green suppliers, with a marked preference for COCITER (a supplier that provides households with electricity produced by 12 citizen cooperatives - notably wind and photovoltaic). Thanks to the hydroelectric power produced by HOSe, COCITER can supplement its sources of green electricity production throughout the year.

Energy citizenship values: In terms of democratic governance, HOSe has a consensual decision-making process that ensures trusting relationships among all partners. The cooperative model has a shared commitment to environmental gains and societal welfare. Moreover, horizontal, democratic governance and strong local ties are core objectives of the associated cooperatives. While these values are not core values of the commercial partner, Hydro-B has embraced them through this project.

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National scope

Energie Partagée, France, 2008-present

Energie Partagée brings together the citizen energy movement in France. It unites and advocates, provides project assistance and finances citizen-led 100% renewable energy projects. To carry out these activities, Energie Partagée consists of three different legal structures: a cooperative, an investment tool and an association. The three parts of the organisation are linked through the core values defined in their founding charter. By adhering to these values[4], local initiatives across France can benefit from the Energie Partagée citizen-energy label.

Business and social innovation model: The purpose of the BSIM is to build a strong ecosystem favourable to citizen-led renewable energy projects by supporting and financing initiatives that are in line with the charter. This ecosystem is made of many kinds of partners including: an advocacy coalition, local authorities, regional support networks, funding partnerships and private partnerships with companies for joint actions. Moreover, Energie Partagée's investment tool is the first innovative funding tool for citizen investment in the production of renewable energy and energy efficiency in France. The fund collects savings from citizens through shareholding and invests the capital in citizen renewable energy projects. The investment tool enables project promoters and regional stakeholders to raise the capital required to launch a project and to maintain citizen control. The equity investment has allowed the BSIM to consolidate over time and has enabled easier access to bank financing.

Energy citizenship values: Energy Partagée is open to everyone and reducing energy poverty is defined in the charter as a core objective. The Energie Partagée investment tool offers a lower price to make shareholding more accessible (€10 compared to €100). Democratic governance is a core criterion that a renewable energy project must fulfil in order to be supported and/or part of the Energie Partagée movement and labelled as a citizen renewable energy project.

[4] Strong, diversified presence of public and private local actors in the project, democratic decision-making, making use of local competences and mobilising local communities, seeking to reduce environmental impacts and energy consumption, and ethical citizen-based financing. See Energie Partagée's website.

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National scope

TreeDependent, Hungary, 2010-present

The TreeDependent programme is a service for individuals, communities, and private and public organisations. The programme is driven by the GreenDependent Institute, a non-profit, public benefit, private limited company. The programme has multiple goals. First, raising awareness about environmentally conscious lifestyles. Second, calculating carbon footprints and planting trees as carbon compensation. Third, community-building/networking by connecting the participants of the programme. Through the programme, a fair and sustainable carbon compensation tool has been developed.

Business and social innovation model: The core objective of the BSIM is the development of a fair and sustainable carbon compensation tool that contributes to raising awareness and reducing the carbon footprints of individuals, communities, and organisations, and in particular the carbon footprints of events and transportation. In terms of economic activity, the clients who partake in the programme pay for the services provided. The income directly supports the continuation of the TreeDependent programme and the development of a *fairy garden*, and indirectly, the schools and non-profit organisations who receive the trees. Although the programme has grown over time, especially with the development of the carbon compensation tool, there is a continuous need to increase the client base for the BSIM's viability over time.

Energy citizenship values: TreeDependent is fully open to all individuals, communities, and organisations, and follows socially aware pricing of services to ensure social inclusion. Special attention is paid to clients with less capacity to undertake the actions proposed by the programme and prices are adjusted accordingly.

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National scope

National Association of Active Citizens, Netherlands, 1985-present

The National Association of Active Citizens (Landelijk Samenwerkingsverband Actieve Bewoners, or LSA) is a national network organisation for groups of active citizens, mobilising citizens from the bottom-up, at the neighbourhood and local level. LSA works with different types of citizen groups, from citizen businesses to healthcare initiatives, energy cooperatives and neighbourhood vegetable gardens. The energy transition is a core axis for LSA, as it has a major impact on local communities. The organisation advocates for a citizen-driven energy transition by organising local, regional, and national workshops, information evenings, and trainings for community groups that wish to start a neighbourhood project to contribute to an inclusive energy transition. Furthermore, LSA employs energy coaches that, for example, support citizens to apply for energy renovation subsidies or provide energy saving tools and advice.

Business and social innovation model: LSA is a nonprofit organisation with a strong collaborative structure. A decisive feature of the BSIM is the wide diversity of partnerships. It assembles around 250 local or neighbourhood groups across the Netherlands. Moreover, together with four other organisations, LSA is part of the Participation Coalition. This partnership enables knowledge-exchange and easier access to resources and funding. Moreover, it allows the organisations to have a bigger impact in their advocacy for a citizen-driven energy transition. The BSIM self-sustains over time due to its public funding structure. While the biggest part of its financing is provided by the Dutch government, the organisation is independent in its actions and activities. Additionally, the organisation receives contributions, donations, funds, or grants from various organisations through national equity funds. LSA also has a certain number of paying members, including municipalities, knowledge institutes and private organisations.

Energy citizenship values: Social inclusion is a core value in the BSIM. The energy transition is considered a collective task that must be just and requires citizen participation. In 2018, LSA published a roadmap for the energy transition to inform about its activities. In 2019, they joined forces with the Participation Coalition to influence national energy policy towards a “a socially and nature-inclusive energy transition, in which citizens work together with the public and private sector”. LSA provides guidance for neighbourhood groups to develop tailor-made solutions to self-manage collective heating systems. The BSIM furthermore facilitates the collaboration between municipalities and citizen groups. They play an important role to ensure democratic governance of the local heat transition where institutionalised policy instruments are not yet in place to facilitate this collaboration.

This project has received funding from the European Union’s Horizon 2020 research and innovation programme under grant agreement No 101022492.

Community-based BSIMs

Energy Communities Tipperary Cooperative, Ireland, 2013-present

The Energy Communities Tipperary Cooperative (ECTC) is a cooperative made up of 15 community groups that represent different areas in the wider Tipperary region. In the cooperative, the communities are represented by local community councils and development associations. The aim is to reduce the amount of money that leaves the local economies every year in the form of energy and fuel bills. To do this, ECTC facilitates renovation works to improve the energy efficiency of older houses and generate community-owned energy. ECTC also supports community building and helps communities to access grants from the Sustainable Energy Authority of Ireland. To access the grants, member communities are required to set up a 'Sustainable Energy Community' (SEC).

Business and social innovation model: The purpose of the BSIM is to enable communities in the Tipperary region and surrounding areas to create local employment and community benefit through reducing their carbon footprint and generating community-owned energy. It supports its member groups to develop a vision of a community-led energy transition, which benefits communities, creates warmer, healthier homes while saving money for homeowners, helps to tackle climate change, and creates new employment. The strong network of partners is a crucial feature for the viability of the BSIM. The partners include the Tipperary Energy Agency, the North Tipperary Development Company, and the Sustainable Energy Authority of Ireland. The Development Company offered essential start-up support for the cooperative. The Energy Agency and the Irish Just Transition Fund provide consistent financial support around which the main work of the case is designed. The economic component of the BSIM uses economies of scale when leveraging funds under different governmental retrofit programs, such as the Better Energy Communities Scheme and the Just Transition Fund. Financing and contractors are organised for several households together, instead for each household separately.

Energy citizenship values: The cooperative consists of local communities, which themselves are represented by local community councils or development associations. In terms of democratic governance, decisions are made on a consensual basis and not on a majority vote principle. ECTC has gained legitimacy through its expertise and working "on the ground" with local communities/groups and has therefore become a trusted point of contact for the Sustainable Energy Authority of Ireland (SEAI) for questions of community engagement in energy-related governance.

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Replicability and scalability

The good practice BSIMs introduced above highlight how initiatives can self-sustain while incorporating social, environmental and democratic values in their DNA. These promising BSIMs have the potential to further scale their activities to impact policy and legislation (scaling up), to reach a greater number of citizens (scaling out) and to have a greater impact on norms and behaviours (scaling deep). The BSIMs furthermore have potential for being replicated in other contexts. However, special attention needs to be paid to how energy citizenship values can be safeguarded and further strengthened in such efforts.

In the following section, we will first deal with key factors for the viability of the BSIMs outlined in the section above, as well as challenges and vulnerabilities that need to be considered for their replication in other contexts. Thereafter, successful processes of *scaling up*, *scaling out* and *scaling deep* in our eight good practices will be outlined. In the next section, we introduce strategies for further scaling of energy citizenship values of these initiatives.

Replicability in other contexts

The good practice cases presented in the last chapter were chosen as they have proved to be particularly viable and fruitful to advance energy citizenship in their respective contexts[5]. Could they be equally successful if replicated and adapted in other contexts? Below we list a number of key characteristics that have enabled the success of the good practice cases. We also highlight vulnerabilities of their BSIMs and the potential for replicability.

[5] Hajdinjak, M. *et al.* 2023. Analytical report on PESTEL factors in the national and local contexts, EnergyPROSPECTS Deliverable 5.2, European Commission Grant Agreement No. 101022492; Country Profiles of the project's partner countries.

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Publicly led BSIMs (local/regional level)

Key characteristics for success

- Enabling institutional and legislative context.
- Long-term, stable income from public financing.
- Adequate human resources and know-how, in addition to stable financing.
- Proactive policy makers and/or other political actors that drive the initiative forward.
- Capacity to mobilise a wide range of stakeholders that support the initiative.

Vulnerabilities

- Changing political priorities.
- Economic recession.

Potential for replicability

- Challenging due to the need for strong political drive and enabling legal and institutional contexts.

Organisationally based BSIMs (local/regional scope)

Key characteristics for success

- Strong anchoring at the local scale: focused on local activities and embedded in local ecosystems of actors and informal partnerships.
- Diversity in funding, stakeholders, partnerships, and networks.

Vulnerabilities

- Highly dependent on a number of engaged individuals.

Potential for replicability

- Good, if well-adapted to the local context.

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Publicly led BSIMs (local/regional level)

Key characteristics for success

- Enabling institutional and legislative context.
- Long-term, stable income from public financing.
- Adequate human resources and know-how, in addition to stable financing.
- Proactive policy makers and/or other political actors that drive the initiative forward.
- Capacity to mobilise a wide range of stakeholders that support the initiative.

Vulnerabilities

- Changing political priorities.
- Economic recession.

Potential for replicability

- Challenging due to the need for strong political drive and enabling legal and institutional contexts.

Organisationally based BSIMs (local/regional scope)

Key characteristics for success

- Strong anchoring at the local scale: focused on local activities and embedded in local ecosystems of actors and informal partnerships.
- Diversity in funding, stakeholders, partnerships, and networks.

Vulnerabilities

- Highly dependent on a number of engaged individuals.

Potential for replicability

- Good, if well-adapted to the local context.

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Scaling up, scaling out and scaling deep

In the last section, several key characteristics for the viability of the good practice cases as well as key challenges and vulnerabilities were outlined, drawing the general context in which the spread of good practice cases can be envisioned. Here, we address the spreading of good practice BSIMs more in detail through the lenses of 3 forms of scaling - scaling up, scaling out or scaling deep - which underpin core aspects to consider for replication.

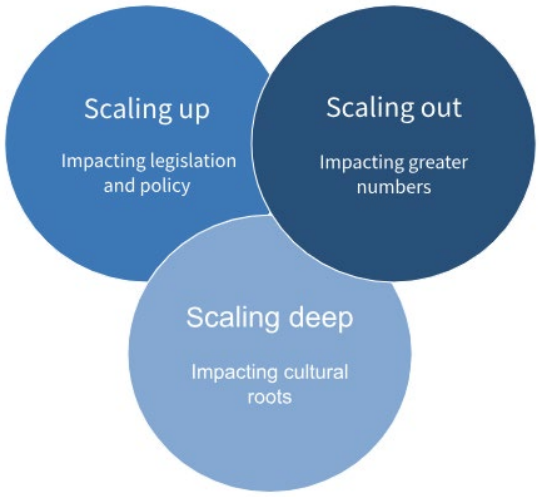

Figure 2. Scaling up, scaling out and scaling deep

Scaling up refers to the impact that initiatives can have on legislation and policy. The National Association of Active Citizens and the Energy Communities Tipperary Cooperative are among the good practice initiatives that have successfully scaled up their activities. The National Association of Active Citizens progressively built up their citizen involvement and sought partnerships with likeminded organisations until they were large enough to have an impact on politics through lobbying and evidence-sharing. They played a key role in the *'Strengthening the Decentralised Participation Act'* that was passed in the Netherlands in 2022. The Energy Communities Tipperary Cooperative, on the other hand, is regularly consulted by national governments and departments for input when developing new regulation due to the expertise they have developed in the area of community engagement in energy-related governance.

Scaling out relates to the number of people that can take part of and are impacted by the initiative. This scaling-aspect is more frequent among the good practice cases. The Energy Communities Tipperary Cooperative consists of a community-based model that is being replicated in more and more communities in the Tipperary region. Similarly, the Hauts de France Pass Renovation has been replicated in other French regions, while also raising interests abroad.

These three cases underline that scaling up and scaling out are simpler processes for cases that benefit from high institutional support, either since they are publicly led (Hauts de France Pass Renovation) or because they have institutionalised relationships with different levels of government (Energy Communities Tipperary Cooperative, National Association of Active Citizens). Thus, they have the capacity to influence both policy and legislative conditions for their functioning, as well as the diffusion of their model.

For BSIMs that do not have the same institutional support, scaling out rather means replication/ adaptation of their innovative models indissociably from their core values and tools. TreeDependent's carbon footprint compensation model is, for example, envisioned to be replicated in the UK and in India. Solocal Energy's BSIM that empowers citizens to produce renewable energy could be adapted in other contexts where balcony photovoltaic plants are allowed.

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Scaling deep encompasses processes that impact cultural values, norms, beliefs, perceptions, practices, and routines. Such processes are much more difficult to identify but are crucial when considering the scaling of energy citizenship values. Therefore, scaling deep should be given special attention and calls for further research.

Two of the good practice cases demonstrate how this can be done. Hydro Electricity Ourthe and Sambre contribute to energy citizenship values through improving energy literacy in the region, especially by organising visits to the hydropower plants for schools to learn about collective ownership and environmental sustainability. Furthermore, the inclusion of a private company in the cooperative that has embraced the BSIM's sustainable and democratic values is another example of scaling deep. Solocal Energy provides an additional example of scaling deep, as it addresses empowerment, energy democracy and literacy in its core activities. Additionally, they mobilise DIY building-groups for solar plants and neighbourhood groups to tackle climate and energy challenges at the local scale in a more holistic way, thus scaling deep through collective processes of learning and sharing knowhow.

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Recommendations for advancing energy citizenship through business and social innovation models

Overarching recommendations [European Institutions]

- **Include research on how energy citizenship values could be enhanced within the next *Horizon Europe Strategic Plan* (2025-2029) or within the *LIFE Clean Energy Transition sub-programme*.** This research should particularly aim to explore how energy citizenship values, such as citizen participation and control, democratic governance, and social inclusion, justice and equity could be further enabled by decision-makers through local innovative initiatives such as the ones outlined in this policy brief.
- **The creation of a European Facility for Citizen Involvement in Local Innovative Initiatives.** This facility could serve to complement the Energy Communities Repository by supporting initiatives beyond energy communities, for example led by public actors, NGOs, citizen-based organisations, or businesses, and provide funding calls, tools, recommendations, and best practices on how to involve citizens in local initiatives and enhance energy citizenship values in such endeavours.

Recommendations targeting publicly led BSIMs [European Institutions, Member States and local/regional governments]

- Increase direct citizen involvement and control capacities within publicly led projects, for instance through the **systematic creation of a "citizen co-decision structure"** within initiatives that target citizens. This needs to be done with respect and care for a citizen-based approach to avoid local and regional authorities appropriating citizen-based mechanisms.
- **Increase the innovation capacity of local and regional authorities.** This means creating a supportive innovative environment where new types of energy transition projects with citizen-involvement can be tested and developed:
    - **Support the development and replication of innovative financial tools** (such as the Haut-de-France Pass Renovation third party financing scheme) through networks where best practices can be shared, and support can be given for their implementation. *[European Commission, Member States]*
    - **Increase the capacity of local and regional governments for innovative projects to be tested and developed** by ensuring adequate human resources, competences, and financial capacities, in order to carry out the transition as well as support and involve citizens in this endeavour. Here, innovative partnerships and collaboration between citizen-based organisations, the private and public sectors should be given particular attention. *[Member States]*
- **Develop strategies for boosting energy literacy within innovative energy transition initiatives - "Next Door Energy Literacy".** This can be done by public authorities including citizen-based organisations or NGOs with an expertise on public outreach. It is important to ensure that energy literacy strategies are not perceived as constraining "musts" coming from above, but rather operate on a citizen-to-citizen level that raises interest and appeals to citizens' everyday lives and challenges. *[Local and regional governments]*

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- **Strengthen support to enhance environmental sustainability aspects within innovative energy transition initiatives.** For example, this could be done by ensuring that local and regional governments are adequately staffed with the right competences to support the calculation of carbon emission impacts on projects and sharing of best practices. [Member States, local and regional governments]

Recommendations targeting organisationally based BSIMs [Member States, local and regional governments]

- **Create an enabling environment within local and regional business ecosystems** to increase innovative capacity and promote partnerships between the private sector, public sector, and citizen-led organisations. This includes:
  - Providing examples for how the private sector can enable energy citizenship jointly with other types of organisations.
  - Supporting capacity-building, professionalisation, and exchange structures/networks to share knowledge and good practices, such as the Selbstbau.solar network in Germany.
  - Create solidarity structures among organisations that could mutualise resources to enhance the resilience of the organisations' ecosystems in situations of crisis (e.g. pandemic).
  - Enable and support alternative financing tools and funding models to enhance the BSIMs viability over time.

Recommendations targeting community based BSIMs [European Institutions, Member States and local/regional governments]

- **Earmark EU-funding and technical assistance for citizen-based organisations,** for example in initiatives like the Green Assist project and the Energy Poverty Advisory Hub. *[European Commission]*
- **Speed up and improve transposition of Renewable Energy Communities (REC) and Citizen Energy Communities (CEC) frameworks and support structures at the national level.** Ensure that the transposition limits co-optation of these models by incumbent businesses and that it is well-adapted to the national context. Remove bureaucratic hurdles and improve support, for example through one stop shops for REC/CEC. *[Member States]*
- **Provide support to local authorities and regions that need increased human resources, competences, and financial capacities to support community based BSIMS.** *[European Institutions, Member States]*
  - **Support community-based organisations in improving energy citizenship values in their projects, such as by:** *[Member States, local and regional governments]*
    - Enhancing environmental sustainability aspects of initiatives, for example, by providing recommendations and support on how to carry out carbon emission calculations and facilitating the sharing of best practices.
    - Sharing best practices on how to improve energy literacy beyond the initiative.
    - Co-developing strategies for participation beyond financial contribution.
    - Providing networking and capacity building opportunities to support the emergence of similar initiatives beyond the local community.

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National Policy Measures and Best Practices for Citizen Engagement in the Energy Transition

Karin Thalberg and Benjamin Schmid

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Introduction

During the past five years, the European Union has made significant legislative advancements towards the objective of reaching climate neutrality by 2050 with the introduction of the European Climate Law, the European Green Deal, and the 'Fit for 55' Climate and Energy Package. As we enter the implementation phase of these policies, understanding and supporting citizen involvement in this process is becoming more and more important. Especially considering the far-reaching societal transformation that the climate and energy transition implies. To this end, EnergyPROSPECTS has examined **how *energy citizenship* is taking shape across the continent today and under which conditions it could be further supported to contribute to the fulfilment of national and European decarbonisation objectives.**

Energy citizenship provides a holistic approach for policymakers to consider citizens' multifaceted roles in the energy transition. The concept encompasses various forms of civic involvement and engagement that can be practised at different levels of action, through different constellations of actors, in the fields of energy production, energy consumption, and in the governance of the energy and climate transition. This policy brief targets national policymakers with policy measures and best practices they could implement to advance energy citizenship in their country.

First, we introduce our approach to energy citizenship, with concrete examples of where and how it can be practised. Second, we highlight the potential of *energy citizenship initiatives* as enablers for citizen action in the energy transition. Going beyond energy communities, energy citizenship initiatives comprise a variety of organisational forms, driven by a diversity of actors that support and enable citizens to practise different forms of energy citizenship. Thereafter, concrete recommendations and best practices are outlined.

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Where and how can energy citizenship be practised?

Energy citizenship is being practised in a variety of ways across the European continent. This section outlines where and how energy citizenship can be practised, both individually and collectively.[1]

Examples of actions in the private sphere

- Switching to a green electricity provider.
- Adopting soft or/and clean mobility options.
- Adopting energy saving and efficiency measures, including energy renovation.
- Becoming a prosumer through the installation of solar panels.
- Participating in demand flexibility and/or shifting use to align with time of use tariffs or energy events, for example by using smart metres.
- Aspiring for self-sufficiency through off grid energy sources and storage technologies.
- Energy literacy measures undertaken at the household level.

Examples of actions within private and public organisations

- Practices mentioned above carried out within the framework of an organisation.
- Contributing to the development of new practices, business models and partnerships that contribute to the energy transition.
- Initiate energy saving campaigns or clean mobility plans at the workplace, school or university.
- Motivate colleagues for the installation of solar energy on the roof of the organisation.
- Supporting the organisation in acting as an intermediary that supports other initiatives working to accelerate the energy transition.

Examples of actions in the public sphere

- Participating in consultations where citizens are invited to express their views on the energy transition in general or regarding a specific topic or project.
- Participating in digital participation platforms that enable consultation and proposal-making in the climate and energy sector.
- Voting in referendums and elections at different political levels regarding the energy transition.
- Shaping the political offer and the public debate with regards to the energy transition.

Examples of collective action in citizen-based organisations and/or through collaboration between NGOs, public authorities, municipalities and/or private actors

- Engaging in initiatives shaped by NGOs, public authorities, municipalities, and/or private actors, such as involvement in local climate-energy plans, energy saving campaigns, home renovation

[1] List adapted from Debourdeau *et al*. (2022). Catalogue of energy citizenship cases and typologies. EnergyPROSPECTS Deliverable 3.2; and Debourdeau *et al.* (2021). Conceptual typology. EnergyPROSPECTS Deliverable 2.2, European Commission Grant Agreement No. 101022492.

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schemes, or buying shares in renewable energy production (as minority shareholders and/or to foster local acceptance).

- Engaging in initiatives shaped by citizen-based organisations, such as the creation of networks, cooperatives, and communities, sometimes supported by local authorities or other types of intermediary actors. One such example is energy communities.

Examples of collective action through social movements

- Working to enhance the acceptance and acceptability of the energy transition through promoting debate, campaigning, or launching initiatives.
- Advocating, protesting, or opposing certain policy-orientations or specific projects through manifestations, direct action, public campaigns, protest networks, occupying movements, etc.

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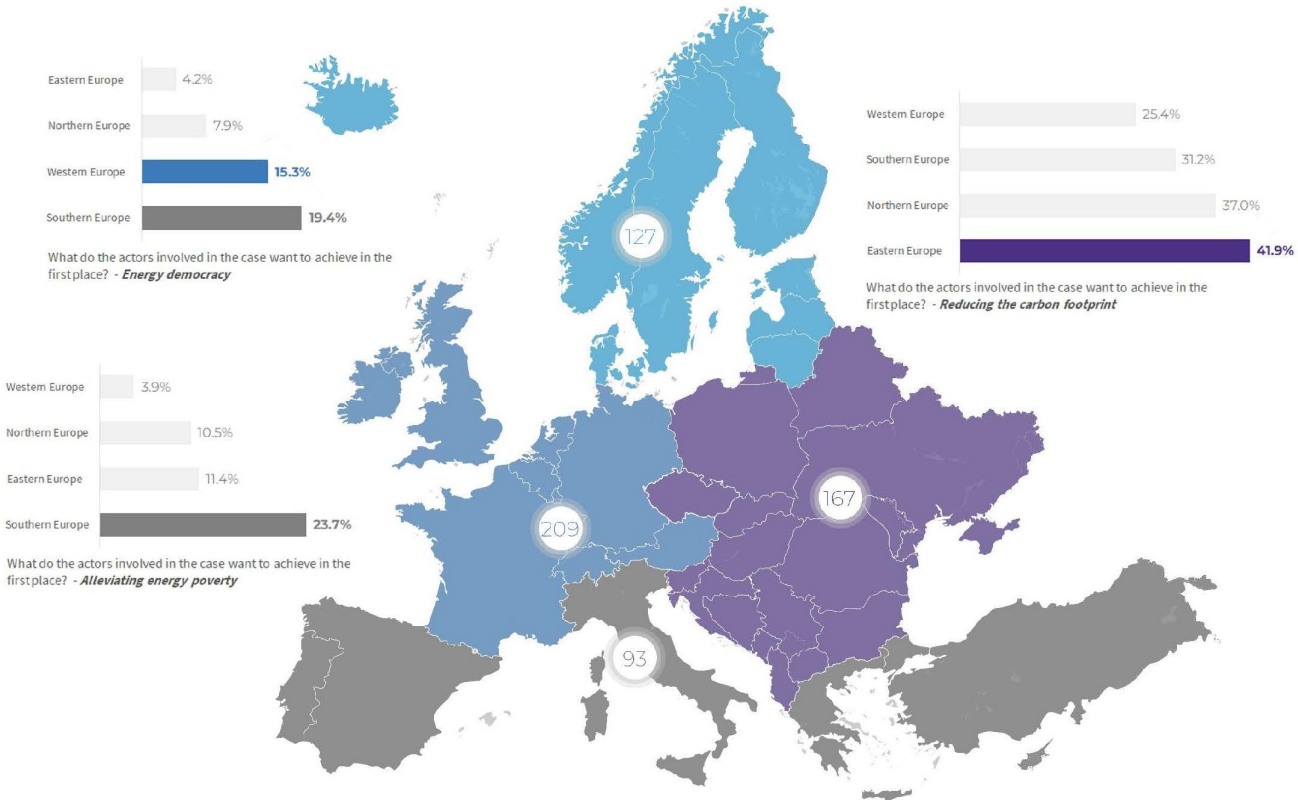
Energy citizenship initiatives as enablers of citizen engagement

Just as energy citizenship practices can be diverse, energy citizenship initiatives take many forms. While often treated as synonymous to energy communities, such initiatives need to be understood more broadly and often take the form of programmes, companies, projects, partnerships, cooperatives, associations, and networks that contribute to the energy transition in a variety of ways.[2] Within the project we mapped 596 initiatives that support or enable citizens to practise energy citizenship in manifold ways in EU, EEA and accession countries.[3] The mapping was neither exhaustive nor representative, instead it aimed to capture the diversity of existing practices.

Most of the initiatives mapped support collective forms of action within the energy system. Through collective forms or action, energy citizenship initiatives have the potential to contribute not only to the achievement of national energy-relevant goals (expansion of renewables, reduction of energy consumption) but also to the democratic quality of the energy transition. For example, by offering citizens opportunities for co-determination, or by contributing to the accessibility and affordability of energy retrofitting or renewable electricity production. [4]



[2] Thalberg, K., Vadovics, E. and Szollossy, A. (2023). Synthesis brief 4: Taking stock of energy citizenship in Europe - 596 examples of how citizens engage in the energy transition. European Commission Grant Agreement No. 101022492.

[3] See the EnergyPROSPECTS database.

[4] See, Thalberg, K. and Debourdeau, A. (2024). Enhancing energy citizenship through business and social innovation models. EnergyPROSPECTS Policy brief. European Commission Grant Agreement No. 101022492.

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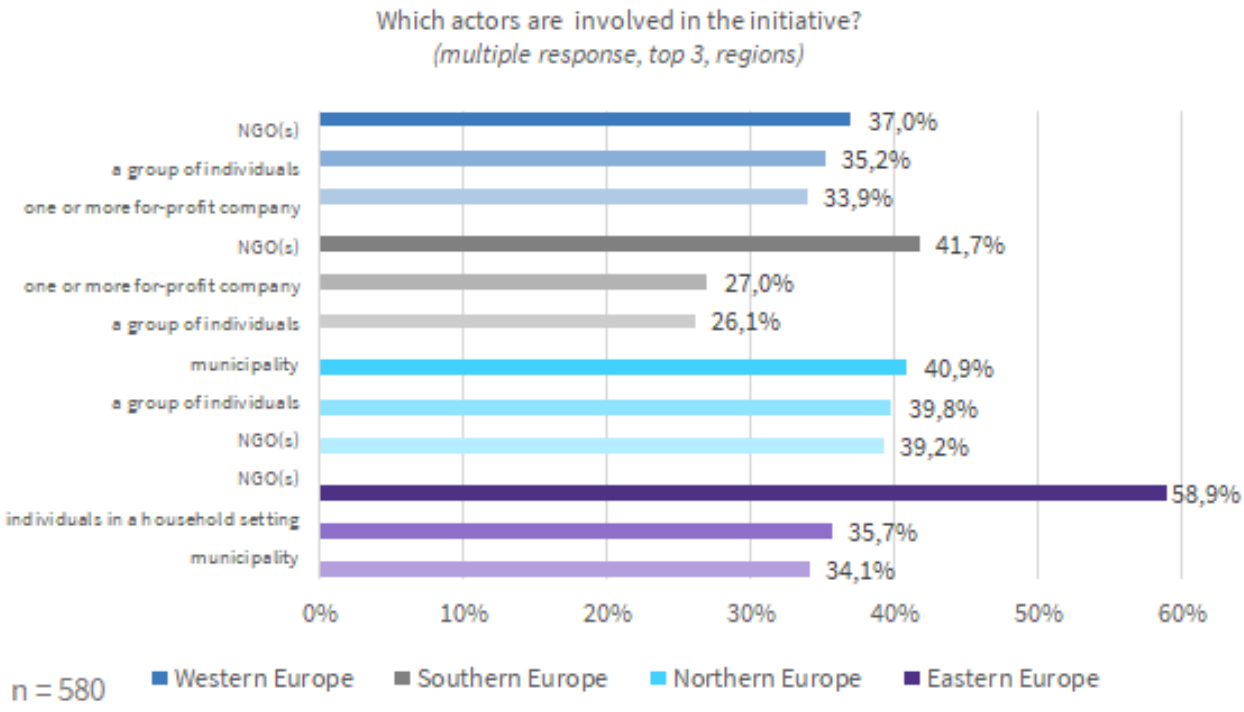
A rich ecosystem of actors take part in and enable initiatives that support citizen engagement and involvement.[5] Key stakeholders in these initiatives can be municipalities, for-profit companies, non-profit companies, citizen groups and non-governmental organisations. Activities of such initiatives include everything from retrofitting of buildings, energy sufficiency and efficiency practices in the home or within organisations, to citizen consultations and deliberative processes, renewable energy production, green energy suppliers, clean mobility initiatives and sustainable housing projects.[6]



[5] Markantoni, M. *et al. 2023.* Strategic collective system building and institutional change: The nature and role of intermediation in making actors cooperate and transact with each other. EnergyPROSPECTS Deliverable 4.1, European Commission Grant Agreement No. 101022492.

[6] For examples see, Vadovics, E. *et al.* (2024). Collection of energy citizenship case summary reports. EnergyPROSPECTS Deliverable 3.5, Part 2, European Commission Grant Agreement No. 101022492.

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How can energy citizenship be supported?

This section provides concrete recommendations and good practices on how national policymakers can support energy citizenship practices, given the diversity of practices and initiatives shown above.

I. Raising awareness of the diversity of energy citizenship practices among policymakers and citizens

Both citizens and policymakers are often unaware of the various forms of civic engagement in energy. The following recommendations on raising awareness are thus two-fold. On the one hand, it calls for policymakers to develop a more profound understanding of existing and potential forms of energy citizenship in their country as well as how these forms are embedded in policy frameworks. On the other hand, it also calls for raising awareness of the various options for civic engagement among the citizenry and of available support schemes.

Citizens themselves often have a limited perception of their own role and avenues for action in the energy transition. While Member States support different forms of citizen engagement to varying degrees[7], a survey carried out within the project[8] showed that many Europeans perceive their roles in the energy transition as limited to actions taken individually or within the framework of the household. That means that most of the actions listed above remain unknown or are perceived as out of reach for many European citizens. At the same time, a majority believes that most people in Europe are not well informed about what they can do to contribute to the energy transition. **This underlines the need for national policymakers to increase awareness about already available opportunities to enable engagement.** The different forms of energy citizenship identified above could be a good place to start.

Recommendation 1. Develop a national roadmap for citizen engagement in the energy transition. Create a task force or assign a relevant authority to identify how different forms of citizen engagement and involvement could be implemented within the national context and which already exist. Available policy mixes of subsidies, financing opportunities, technical and administrative support schemes should be evaluated for each type to determine policy shortcomings. Special attention should be paid to the emergence of innovative and experimental energy initiatives that can support citizen engagement.

The identification process needs to be carefully crafted in dialogue with local and regional authorities as well as researchers and practitioners. Ideally, this process would feed into the creation of a national roadmap. The roadmap would instruct national governments in the development of enabling policy frameworks for a diversity of energy citizenship initiatives and practices paired with tangible objectives.

[7] Hajdinjak, M. *et al.* (2023). Analytical report on PESTEL factors in the national and local contexts. EnergyPROSPECTS Deliverable 5.2, European Commission Grant Agreement No. 101022492.
[8] Hajdinjak et al. (2024). Analysis of the online survey. EnergyPROSPECTS Deliverable 5.4, European Commission Grant Agreement No. 101022492.

This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 101022492.

One such example could be setting up at least one renewables-based energy community in every municipality with a population higher than 10,000 by 2025, as suggested in the REPowerEU plan.

The proliferation of misinformation and populist communication around the energy transition across Europe[9] further accentuates the need for coherent, relevant, and accessible information on the costs and benefits of the transformation of our energy systems, energy products and services, available support measures and ways to get involved.

Recommendation 2. Streamline public communication and points of contact, especially highlighting available opportunities, such as subsidies and technical assistance, and ways to get involved in the energy transition (see recommendation 1). Depending on the level of centralisation of the Member State in question, this could be done at the national, regional, or local level of government.

It is important for this project that government websites are easily accessible, and that information can be obtained without major hurdles. When citizens approach public authorities with questions, they should receive an answer within a reasonable period. Cooperation with conventional media outlets may also be beneficial for public communication with regards to available opportunities for energy citizenship, but with care of maintaining the independence of the press.

II. Recognising unequal capacities to act

Raising awareness is not enough. It is equally important to recognise that not everyone wants or has the capacities to engage in the same ways, and therefore to make sure to provide examples of different forms and levels of engagement.[10] This is reflected in the results of a survey of European citizens, which show differences in the forms of active participation that citizens can imagine taking part in. Yet, many of them agree that the most important policy measures to enable citizen engagement and involvement in the energy transition are to **make universal access to affordable and sustainable energy a political priority and to design specific measures to support vulnerable energy consumers and people living in energy poverty**. These findings are supported by other European surveys: In the last EIB Climate Survey, for example, 68% of respondents reported that the energy transition can only succeed if policy makers address social and economic inequalities and support policies that take these into account.[11]

[9] Thalberg K. *et al.* (2024). The European Green Deal in the face of rising radical right-wing populism, *Policy Paper n. 296*, Paris: Jacques Delors Institute, January.
[10] Thalberg, K. *et al.* (2024). Empowering collective energy citizenship for a sustainable and democratic European energy transition. EnergyPROSPECTS Policy brief 1. European Commission Grant Agreement No. 101022492.
[11] European Investment Bank. (2023). EIB Climate Survey 2023-2024.

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Recommendation 3. Carry out granular surveys on the social determinants of support for and resistance against energy and climate policy measures. The French IPSOS/RTE poll can be seen as a good practice. This is an important complement to recommendations 1 and 2 to provide robust evidence for targeted policy measures that integrate socio-economic considerations.

Good practice: Innovative financing model to ensure access to energy retrofitting

The Hauts-de-France Pass Renovation project is operated by the regional one-stop-shop PSEE (Regional Public Service for Energy Efficiency). The initiative enhances energy efficiency through energy retrofitting in private buildings, including both single-family homes and condominiums. Pass Renovation facilitates citizens throughout the whole renovation process and is based on an innovative *third-party financing* economic model. The economic model is financed by a dedicated public fund through which the PSEE advances the payment for renovation works to the beneficiaries. Once the renovation works have been carried out, the beneficiaries can make the repayment in whole or in part through the financial savings that the energy renovation has generated. Long repayment periods are granted to low-income households.

III. Building trust for the energy transition through participation and dialogue

Lack of trust is a core concern for the energy transition. Lack of trust in fellow citizens, public institutions, energy services or the energy transition, appears across all Member States, albeit in different forms.[12] Across the European Union, a common theme is the **fatigue of representative-technocratic democracy**.[13] This fatigue expresses itself in various ways, such as the lack of trust in decision-makers and the rise of populist discourse and political parties[14]. In our survey, 69% of respondents agreed to the statement that decision-makers do not consider the views and ideas of ordinary citizens when designing policies pertaining to development of the energy system. **Exploring the integration of citizens' assemblies within energy and climate transition policymaking** offers an avenue to balance participation and representation and to increase the democratic legitimacy of energy and climate policies.

Furthermore, there is a lack of common transition narratives that speak to citizens' everyday lives and activities[15]. Often, the transition remains an abstract process for many, which entails vague ideas

[12] Hajdinjak, M. *et al.* 2023. Analytical report on PESTEL factors in the national and local contexts. EnergyPROSPECTS Deliverable 5.2, European Commission Grant Agreement No. 101022492.
[13] OECD. (2023). Government at a Glance 2023.
[14] Thalberg K. *et al.* (2024). The European Green Deal in the face of rising radical right-wing populism, *Policy Paper n. 296*, Paris: Jacques Delors Institute, January.
[15] Thalberg, K. *et al.* (2023). Feedback report on knowledge exchange workshops. EnergyPROSPECTS Deliverable 6.1, European Commission Grant Agreement No. 101022492.

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and goals about increasing the deployment of renewable energy sources, electrification of transport uses, reducing energy consumption, and so on. Implementing the European Green Deal will require substantial transformation of our fossil-based societies, which can create major disruptions and high levels of uncertainties among the population (concerning jobs, mobility, affordability, quality of life, etc.).[16] **In the light of these uncertainties, participative approaches are promising tools for consensus-building and collective foresight.**

Recommendation 4. Integrate citizen assemblies and stakeholder dialogues in energy and climate transition governance. Member States should properly implement and increase their ambitions regarding stakeholder dialogues mandated under article 11 of the Governance of the Energy Union regulation (2018/1999). This could be done for example through the institutionalisation of Citizen Climate Assemblies at the national, regional, and local levels. Citizen assemblies should be complemented by fora for dialogue at different levels of government where a variety of actors can be heard, such as, local and regional authorities, civil society organisations, businesses, investors, and other relevant stakeholders. A key aspect of citizens assemblies is to manage expectations and to communicate clearly and transparently how recommendations are to be adopted and integrated into the overall policy-making process.

Collaborative and inclusive consultation exercises are currently lacking.[17] Building trust for the energy transition means bringing everyone along, especially socio-economically marginalised groups.[18] Therefore, participative processes need to be designed with care to include voices of those who are not usually represented in policymaking.

Good practice: Citizen assemblies on how to achieve a socially just and inclusive transition

The Fair Energy Transition for All project organised citizen assemblies that especially included marginalised groups in discussions on how to design more socially just and inclusive energy transition policies. Furthermore, the project established dynamic feedback loops for the deliberative exercises that involved both citizens and experts. In addition to providing initial input into the process this mechanism allowed the citizens to challenge the recommendations that experts had drafted in the end, showcasing a collaborative citizen-expert dynamic.

[16] Thalberg K. *et al.* (2024). The European Green Deal in the face of rising radical right-wing populism, *Policy Paper n. 296*, Paris: Jacques Delors Institute, January.
[17] Thalberg, K. *et al.* (2023). Feedback report on knowledge exchange workshops. EnergyPROSPECTS Deliverable 6.1, European Commission Grant Agreement No. 101022492.
[18] Foster, C., & Frieden, J. (2017). Crisis of trust: Socio-economic determinants of Europeans' confidence in government. European Union Politics, 18(4), 511-535. https://doi.org/10.1177/1465116517723499

IV. Enabling collective action in energy citizenship initiatives

Many energy citizenship initiatives operate at the local or regional level but perform different roles depending on the configuration of national energy systems and governance.[19] It is therefore important to understand recommendations about the support for these initiatives in the context of the configuration of the respective national multi-level governance system. A key distinction is the degree to which the (energy) governance in a country is organised in a decentralised-federalist or centralised manner, including what autonomy local governments must shape their own energy policy and engage with energy citizen organisations.

In member states with more decentralised (energy) government systems, support from the local government level is pivotal. Specifically, it is advisable to ensure that local government actors are equipped with enough capacity to substantially support energy citizen initiatives (see recommendation 5). Apart from capacity, it is also important for these actors to have their own leeway to ensure flexibility in the relationship and adapted measures. This includes their ability to ensure long-term and systematic financing (yet it is often limited to annual or pilot projects). There are indications that such cooperation with local government actors can alleviate pressures for strong professionalisation and thus enable long-term grassroots democratic governance within community energy organisations.

Recommendation 5. Increase the innovation capacity of local and regional authorities. This means creating a supportive innovative environment where new types of energy citizenship initiatives can be tested and developed by ensuring adequate human resources, competences, and financial capacities, to carry out the transition as well as support and involve citizens in this endeavour. Here, innovative partnerships and collaboration between citizen-based organisations, the private and public sectors should be given particular attention.

Good practice: Local stakeholders joining forces to accelerate renewable energy deployment

Driven by the Département (i.e., a French government level in-between the local and regional level), the Maine-et-Loire charter was signed during the spring of 2023 by a mix of public energy actors, private developers and citizen-based networks and organisations. The aim is to accelerate the deployment of renewable energy in the territory and promote local appropriation of the energy transition by creating a framework for cooperation between citizens, the public and the private sectors based on shared values. This initiative opens a space to develop the local energy transition, importantly by reaching out to public authorities and citizens' groups that are not yet involved in locally governed renewable energy projects. To foster local anchoring and support for the transition, the initiative aims to maximise the local economic and social benefits of projects, pool skills and knowledge between actors, and importantly

[19] Schmid. B., Markantoni, M., & Kemp, R. (2023). Qualitative Comparative Analysis to investigate conditions for energy citizenship outcomes. EnergyPROSPECTS Deliverable 4.3, European Commission Grant No. 101022492.

This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 101022492.

create new venues for dialogue to inform, involve and listen, for all stakeholders, such as residents, elected representatives, economic players, and associations. A core value in the charter is to consider local needs and dynamics in the development of renewable energy projects.

For more centralised energy governance systems, evidence shows that national support programs alone are not always sufficient. These are often geared towards specific energy technologies and not tailored to the needs of energy citizenship initiatives. Access to such funding often represents a major barrier for energy citizenship initiatives due to lack of know-how and administrative capacity. In these contexts, complementary programmes specifically geared towards energy citizen initiatives are one way to alleviate this barrier and help them access conventional funding, for instance in the form of one-stop shops/single points of contact.

Good practice: Requirements for local ownership of renewable energy generation

Requirements for local ownership of renewable energy generation projects have proven to be a useful instrument in the Netherlands. The Dutch climate act advises that 50% of local energy ownership is targeted by 2030, allowing municipalities to enforce this as a formal requirement. This stipulation ensures that the community benefits from renewable energy projects, preventing the capture of revenues by commercial entities. Energy cooperatives, in particular, benefit from this requirement, as private developers often turn to them to meet the local ownership criteria.

Overall, there is a need to align financing and support programs between different horizontal (between different government departments) and vertical (between administrative tiers) levels of governance to create a more cohesive and supportive environment for energy citizenship initiatives. Addressing this lack of coherence involves streamlining communication and coordination between different entities involved in energy-related programs.

Beyond financing, energy citizenship initiatives often require technical and administrative support to carry out their activities. Energy citizenship initiatives often face considerable bureaucratic challenges when getting approval for and implementing projects, which often necessitates navigating multiple administrative units and support programs. Streamlining these processes and shifting bureaucratic responsibility to government entities can alleviate the challenges faced by energy citizenship initiatives.

This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 101022492.

Recommendation 6. Set up a single point of contact for renewable energy projects. The transposition of the recast EU Renewable Energy Directive (2018/2001) mandates the introduction of single contact points to provide guidance and facilitate the administrative procedures for applicants undertaking renewable energy projects (developers, energy communities, self-consumers) throughout their administrative permit application and granting processes. The Irish introduction of a single point of contact is a good practice in this regard.

It is imperative not to regard energy citizenship initiatives solely as an instrument for implementing renewable energy or efficiency solutions. Through their strong local engagement and by working on-the-ground, participants in such initiatives often develop a sophisticated understanding of the impact and challenges of existing or envisaged energy policies. Yet, compared to established actors, they are usually not as well organised as political lobbies. It can therefore be worthwhile not to neglect opinions and assessments that originate from these organisations. Put more broadly, there is a need for improved dialogues between energy citizenship initiatives, public actors, and different levels of government. Encouraging ongoing dialogues and ensuring policy stability are crucial for effective policy frameworks.

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Energy Citizenship: A Holistic Vision for Citizen Engagement in the European Energy Transition

Karin Thalberg and Marko Hajdinjak

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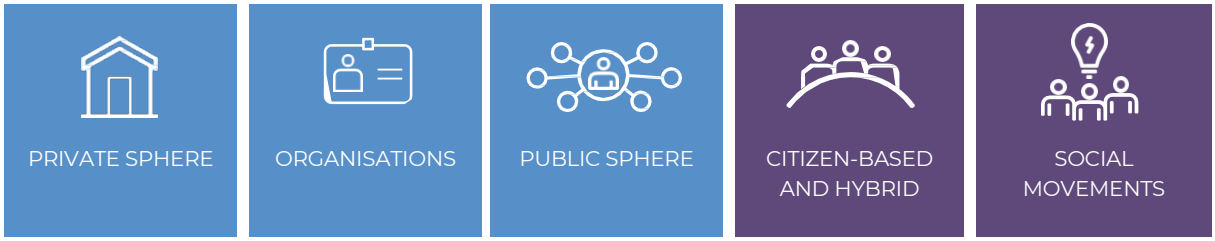
An introduction to energy citizenship

The European Union's path towards climate-neutrality presents a unique opportunity to create a more socially just and democratic energy system. The energy price crisis (2021-2022) brought to the surface wider inequalities that characterise the prevailing energy system.[1] As the transition speeds up in response to climate change, energy security and price concerns[2] decision makers must ensure that policy choices do not entrench or aggravate current inequalities. EU responses to the climate crisis, social inequalities, and declining trust in political institutions[3] must go hand in hand to ensure public support for the energy transition. Key aspects in this endeavour are what roles citizens (should and could) play, and how to balance responsibilities and rights of different stakeholders in the energy transition.

EnergyPROSPECTS has examined the potential of *energy citizenship* to contribute to a more sustainable, just, and democratic European energy transition. Energy citizenship pertains to civic involvement and engagement in the energy transition. It can be practised at different levels of action, through different constellations of actors, in the fields of energy production, distribution, and energy consumption, and in the governance of the energy/climate transition.



Today, energy transitions are going at different paces across the Union and citizen involvement and engagement are taking diverse forms[4] that also vary according to the specific contexts of different Member States.[5] EU policymakers are nonetheless becoming increasingly aware that public engagement will determine the success of energy and climate policy.[6] **The clean energy transition is becoming everyone's business. What does this mean for citizens' roles in the European energy transition?**

Building on three years of research, this policy brief presents the scope and diversity of citizen engagement in the energy transition, identifies barriers and opportunities, and proposes targeted recommendations for supporting effective energy citizenship in the European Union.

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[1] Eurostat. 2023. Inability to keep home adequately warm - EU-SILC survey. 2013-2022.
[2] Ember. 2023. European Electricity Review 2023.
[3] Eurobarometer. 2023. Standard Eurobarometer 98 - Winter 2022-2023.
[4] See the 596 examples of energy citizenship initiatives in the EnergyPROSPECTS case database.
[5] Hajdinjak, M. *et al.* 2023. Analytical report on PESTEL factors in the national and local contexts. EnergyPROSPECTS Deliverable 5.2, European Commission Grant Agreement No. 101022492.
[6] Council recommendation on fair transition proposed by EC on Dec 21, adopted in June 2022.

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A holistic approach to citizens' engagement in the energy transition

Within EU energy policy and legislation, citizens are no longer recognised only as consumers on the energy market,[7] but increasingly so as energy prosumers[8] and as members of energy communities[9]. Despite the legal recognition of these active forms of citizen engagement, policymakers appear to have a limited view of citizens' roles within the energy system.[10]

Energy citizenship offers a holistic approach to citizen engagement in the energy transition. By mapping a wide diversity of energy citizenship practices across the European continent[11], we have identified five levels of action: in the private sphere, within organisations, in the public sphere, within citizen-based organisations and/or through collaboration with various actors, and in social movements[12]. Our approach to energy citizenship can help expand policymakers' vision on citizens' roles in energy policy and legislation today. **Recognising the diversity of practices that exist is a first step towards harnessing the potential of energy citizenship in the European energy transition.**

Examples of actions in the private sphere

- Switching to a green electricity provider.
- Adopting soft or/and clean mobility options.
- Adopting energy saving and efficiency measures, including energy renovation.
- Becoming a prosumer through the installation of solar panels.
- Participating in demand flexibility and/or shifting use to align with time of use tariffs or energy events, for example by using smart metres.
- Aspiring for self-sufficiency through off grid energy sources and storage technologies.
- Energy literacy measures undertaken at the household level.

Examples of actions within private and public organisations

- Practices mentioned above carried out within the framework of an organisation.
- Contributing to the development of new practices, business models and partnerships that contribute to the energy transition.

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[7] Directive on Common Rules for the Internal Market for Electricity 2019/944.
[8] Self-consumption of renewable electricity or *prosumerism* is recognised under the Renewable Energy Directive 2018/2001.
[9] Two types of energy communities are recognised in EU legislation: **renewable energy communities (REC)** under the Renewable Energy Directive 2018/2001 Art.2(16) and **Citizen energy communities (CEC)** are defined under the Internal Electricity Market Directive 2019/944 Art. 2(11).
[10] Pel, B. & Thalberg, K. (2022). EnergyPROSPECTS Synthesis Brief 1. Setting the scene for a critical exploration of the roles of citizens in the European energy transition. European Commission Grant Agreement No. 101022492.
[11] See the 596 examples of energy citizenship initiatives in the EnergyPROSPECTS case database.
[12] List adapted from Debourdeau *et al*. (2022). Catalogue of energy citizenship cases and typologies. EnergyPROSPECTS Deliverable 3.2; and Debourdeau *et al.* (2021). Conceptual typology. EnergyPROSPECTS Deliverable 2.2, European Commission Grant Agreement No. 101022492.

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- Initiate energy saving campaigns or clean mobility plans at the workplace, school or university.
- Motivate colleagues for the installation of solar energy on the roof of the organisation.
- Supporting the organisation in acting as an intermediary that supports other initiatives working to accelerate the energy transition.

Examples of actions in the public sphere

- Participating in consultations where citizens are invited to express their views on the energy transition in general or regarding a specific topic or project.
- Participating in digital participation platforms that enable consultation and proposal-making in the climate and energy sector.
- Voting in referendums and elections at different political levels regarding the energy transition.
- Shaping the political offer and the public debate with regards to the energy transition.

Examples of collective action in citizen-based organisations and/or through collaboration between NGOs, public authorities, municipalities and/or private actors

- Engaging in initiatives shaped by NGOs, public authorities, municipalities, and/or private actors, such as involvement in local climate-energy plans, energy saving campaigns, home renovation schemes, or buying shares in renewable energy production (as minority shareholders and/or to foster local acceptance).
- Engaging in initiatives shaped by citizen-based organisations, such as the creation of networks, cooperatives, and communities, sometimes supported by local authorities or other types of intermediary actors. One such example is energy communities.

Examples of collective action through social movements

- Working to enhance the acceptance and acceptability of the energy transition through promoting debate, campaigning, or launching initiatives.
- Advocating, protesting, or opposing certain policy-orientations or specific projects through manifestations, direct action, public campaigns, protest networks, occupying movements, etc.

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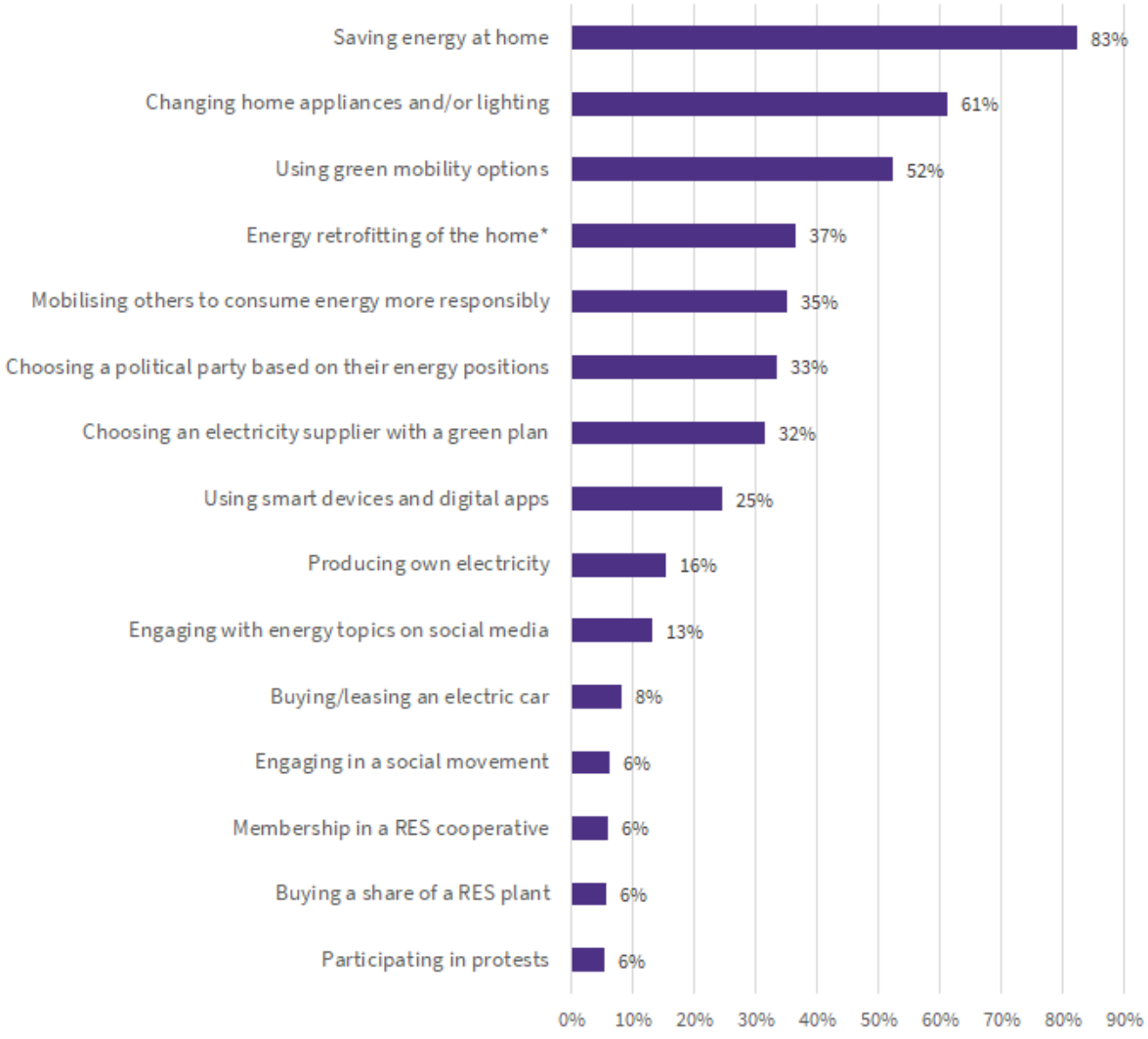
How do citizens engage in the energy transition today and how do they envision doing so in the future?

A survey carried out within the project[13] showed that a majority of Europeans perceive their roles in the energy transition as limited to actions taken individually or within the framework of the household. Concurrently, the most widespread means to engage in the energy transition related to the respondents' consumption of energy in their private lives. The graph below shows the ways that the respondents currently engage in the energy transition.



[13] The survey involved over 10 000 participants across the nine countries participating in the project (Belgium, Bulgaria, France, Germany, Hungary, Ireland, Latvia, Spain, and The Netherlands). In each county, at least 1,000 citizens completed the questionnaire. An additional 1,000 respondents were recruited from 10 other European countries (Austria, Denmark, Finland, Greece, Italy, Poland, Portugal, Sweden, Turkey, and the United Kingdom). See, Hajdinjak et al. (2024). Analysis of the online survey. EnergyPROSPECTS Deliverable 5.4, European Commission Grant Agreement No. 101022492.

* Energy retrofitting of the home includes everything from adding adhesive isolation bands to windows and doors to full-scale energy retrofitting.

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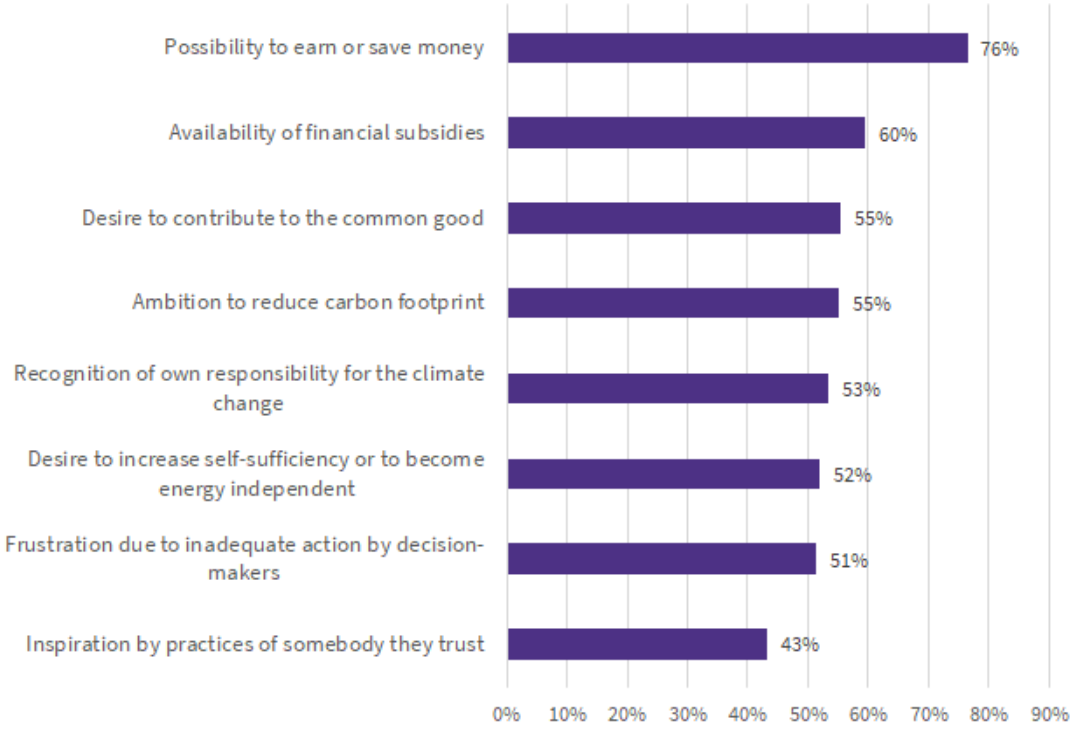
Three thirds of activities in which respondents are involved have been organised by themselves or together with other members of their households. In one fifth of cases, the activity was something conducted together with the local community in the neighbourhood in which the respondents live. The potential of many of the initiatives mentioned above therefore remain untapped. When asked about the reasons to perform these activities, respondents arranged the eight suggested motivations as shown in the graph below.[14] Financial reasons were ranked as the most important, but not far thereafter were the desire to contribute to the common good or motivations related to climate change.



[14] In parenthesis is % of respondents, for whom this reason was important or very important. Several options were possible.

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Looking ahead, the survey participants imagine themselves engaged in the following energy citizenship practices until 2030.

- Looking at practices within the **private sphere**, by far the largest share of respondents (69%) believe that their homes will be equipped with energy efficient home appliances and smart devices that would help them to consume less energy. Over half (56%) are confident that by 2030 they would substantially change their energy consumption practices.
- Regarding practices within **organisations**, many respondents (49%) plan to play an active role in the change of energy consumption practices at the places where they work or study.
- Within the **public sphere**, in the coming years, exactly one half (50%) will probably vote for a political party or candidate that puts the energy transition in the centre of their political programmes, and about one fourth of the respondents are ready to participate in public debates and consultations, or other deliberative processes in the public sphere (28%).
- When it comes to **citizen-based or hybrid organisations**, a similar share of those who are ready to participate in public debates and consultations can imagine joining a citizen-based organisation or other collective form of citizen engagement (27%).
- One fourth of the respondents (25%) signalled a willingness to take part in **social movements,** such as participating in demonstrations and protests linked to various aspects of the energy/climate transition.
- One quarter of the respondents (25%) has **no interest in actively participating in the energy transition** and is quite confident that this will not change in the near future.

This highlights the fact that not all citizens may wish to undertake certain practices or that they may perceive certain of them as out of reach, for a variety of reasons. At the same time, a majority in our survey believes that most people in Europe are not well informed about what they can do to contribute to the energy transition, which underlines the need for European and national policymakers to increase awareness about the available opportunities and potential benefits, as well as recognising that not everyone wants or has the capacities to engage in the same ways. The next section provides a general overview of what factors serve to enable or hinder energy citizenship.

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How can energy citizenship be supported?

The expanded perspective of citizen engagement in the European energy transition needs to be supported with an awareness of the factors that can either facilitate or impede its development. For this purpose, analyses of the political, economic, social, technological, environmental, and legal contexts for energy citizenship were conducted at the EU-level[15], as in the nine partner countries of the project: Belgium, Bulgaria, France, Germany, Hungary, Ireland, Latvia, the Netherlands, and Spain[16]. Based on these analyses, this section outlines how different types of energy citizenship can be supported to contribute to a more sustainable, socially fair, and democratic energy transition.

First, achieving climate neutrality by 2050 will require not only a far-reaching transformation of our economies, but also of the lives and everyday activities of European citizens. **Social acceptability of and willingness to invest in energy-efficient technologies and services, good energy awareness and literacy, and public support for the energy transition are crucial for a socially fair and democratic transition.** They cannot be achieved without programmes and measures that promote public engagement and build trust. The lack of trust in public institutions was found to be among the most important barriers for the development of energy citizenship across the nine countries, which poses larger questions of societal trust and democratic governance of the transition.

To build trust, it is important to recognise the emotional side of energy transition.[17] Polarisation on energy transition topics could be considerably reduced if policymakers show sensibility towards citizens' fears and anxieties in the face of change. As an example, 57% of respondents in our survey expect that in 2030 they will pay more for energy but only 14% think that the process of energy transition is on the right track[18]. One way to do this could be to complement rather abstract energy and climate objectives with a credible and tangible energy transition vision at the EU-level that speaks to citizens in their everyday lives. What will the energy transition mean in our lives? Ideally, it would go beyond energy and provide a holistic vision of how our societies would change. What will climate neutrality until 2050 look like? How will we move, heat our buildings, produce our energy, etc? What types of new jobs will exist? What will 42.5% of renewable energy in the European energy mix until 2030 mean in our lives? Benefits, challenges, and costs need to be highlighted.

The relationship between trust, support for the transition and broad and meaningful participation in decision-making was importantly highlighted in the IPCC report on the mitigation of climate

[15] Debourdeau, A. *et al.* (2022). PESTEL Analysis of the EU Context. EnergyPROSPECTS Deliverable 5.1, European Commission Grant Agreement No. 101022492

[16] Hajdinjak, M. *et al.* (2023). Analytical report on PESTEL factors in the national and local contexts. EnergyPROSPECTS Deliverable 5.2, European Commission Grant Agreement No. 101022492.

[17] Thalberg, K. *et al.* (2023). Feedback report on knowledge exchange workshops. EnergyPROSPECTS Deliverable 6.1, European Commission Grant Agreement No. 101022492.

[18] Hajdinjak et al. (2024). Analysis of the online survey. EnergyPROSPECTS Deliverable 5.4, European Commission Grant Agreement No. 101022492.

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change in 2022.[19] These findings are reiterated in the results from the project's EU-level and national level analyses. Commitment to participatory governance was found to be especially important at the EU level, whereas political and democratic cultures that support active engagement as well as multi-level governance[20] structures that enable citizen involvement were found as important enablers for energy citizenship at the national level.

Second, at the EU level, agreed upon climate and energy policy targets[21] function as an overarching framework for energy citizenship, but **there is a risk of individualisation of responsibilities that can create social backlash if adequate support measures are not in place.**[22] Citizenship, in this context, necessitates **an approach where responsibilities are met with (positive) rights.** The responsibility to change behaviours and practices must be met with a right to access clean and affordable alternatives. Our survey results support this statement, as 56% of respondents reported that they are constrained by insufficient financial resources in undertaking practices that contribute to the energy transition.

At the EU-level, empowerment policies, including the recognition of energy poverty and vulnerable citizens as a political priority, were assessed as crucial for energy citizenship. **Making vulnerable citizens a political priority means acknowledging citizens' differentiated financial capacities and competences** to, for example, upgrade household equipment, change everyday mobility practices or undertake energy retrofitting. Across the nine countries at the national level, we find inequalities in terms of income/wealth disparity and high rates of energy poverty, and high inflation rates and decreasing purchasing power. On the opposite end, among the key enablers, we find financial and technical assistance schemes that promote energy efficiency and RES technologies in buildings and legal measures dedicated to vulnerable consumers, energy poverty and social inclusion.

Third, **financing remains the Achilles heel of the EU's ambitions climate legislation,**[23] especially to ensure that citizens have access to clean and affordable alternatives and for energy citizenship to develop. Among the economic factors in the EU-level analysis, European market intervention together with the design of and access to financing and investments were assessed to be more influential for the development of energy citizenship[24] than for example energy prices and economic growth.[25]

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[19] IPCC. (2022): Climate Change 2022: Mitigation of Climate Change. Contribution of Working Group III to the Sixth Assessment Report of the Intergovernmental Panel on Climate Change. Cambridge University Press, Cambridge, UK and New York, NY, USA. Doi: 10.1017/9781009157926

[20] See findings from the NEC Platform project on how to improve multi-level governance in the design and implementation of the National Climate and Energy Plans required under the Governance Regulation (2018/1999/EU).

[21] See for example the European Climate Law Regulation (2021/1119/EU), the Renewable Energy Directive (2018/2001/EU), and the Energy Efficiency Directive (2012/27/EU).

[22] The Yellow Vest movement in France is an example. See: Defard C. (2022). The need for a socially-just European Green Deal. Lessons from the Yellow Vests movement. *Policy paper*, Paris: Jacques Delors Institute, 2 June.

[23] Findeisen, F. & MackDo, S. (2023). Do more with more - How the EU can improve funding for the European Green Deal. *Policy brief*, Hertie School, Jacques Delors Centre, 23 May.

[24] EU-financing has been found to be a key source of funding for energy citizenship initiatives, see: Thalberg, K. *et al.* (2023). Synthesis brief 4: Taking stock of energy citizenship in Europe. European Commission Grant Agreement No. 101022492.

[25] Energy prices and economic growth fluctuates. In the current context of high inflation and weakened purchasing power, citizens prioritise these issues ahead of the European Parliament elections in June 2024. Market intervention and support mechanisms are therefore all the more important to increase legitimacy for the European energy transition and transition policies. See: IPSOS. (2023). 55% of Europeans fear that the energy transition will further fragment society.

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Furthermore, socio-economic as well as governance aspects need to be considered when designing financial support for the transition,[26] especially if policymakers desire to promote energy citizenship and a socially inclusive and democratic transition. Therefore, the political, social, and economic factors need to be considered together.

Financing and investment opportunities that contribute to a more sustainable energy system were considered as key enablers across all countries, which echoes the findings at the EU-level.[27] Public funding is needed in the development of electricity transmission and storage, which, if insufficiently developed, represent a crucial barrier for energy citizenship at the national level. Equally important is the public funding for the energy retrofitting of the existing building stock, which is a key measure to combat energy poverty and decarbonise the residential sector overall.

Fourth**, political integration at the EU-level and well-functioning multi-level governance are key levers to even out unequal capacities for the development of energy citizenship across the European Union.**[28] The transition is proceeding at different paces across the Union and energy citizenship is developing in diverging ways in different Member States. However, the challenges of socio-economic inequalities, in terms of access to clean and affordable alternatives, as well as trust and support for the transition, albeit to different extents, exist everywhere. Here, the EU can play a key role to support a socially inclusive and democratic transition through its legislation and financing mechanisms.

One example where the EU could play an important role would be in supporting and simplifying administrative procedures to set up citizen-owned renewable energy production. This has been identified as a key barrier for the development of collective energy citizenship practices across all the countries studied. While EU-initiatives like the Energy Communities Repository are great steps to provide clear information, access to technical assistance and one-stop shops, there is room for improvement.[29] Another example is the support to and empowerment of local authorities and regions that need increased human resources, competences, and financial capacities to carry out the energy transition.[30]

Lastly, **the different roles that citizens can play in the energy transition, especially collective forms of engagement, need to be better recognised**. Awareness-raising and information on different kinds of engagement provides concrete examples of what the energy transition could mean in citizens' everyday lives. The EnergyPROSPECTS survey has shown that most citizens consider the information provided through EU websites and social media channels to be among the most credible sources of

[26] For an example of how inclusive governance can be promoted through EU funding schemes, see: Defard C. & Thalberg K. (2022). An inclusive Social Climate Fund for the just transition. *Policy brief*, Jacques Delors Institute, January.
[27] Financial support and assistance was also found to be the most efficient and less burdensome measures in a 2023 survey carried out by IPSOS and BNP Paribas, see page 23.
[28] In the Standard Eurobarometer 99 - Spring 2023, 73% of respondents were for a common energy policy among EU Member States.
[29] See policy recommendations in: Kerneïs K. (2023). The EU framework on energy communities. Sun4all Project, European Commission, October.
[30] See for example: Colin, A. *et al.* (2022). Local authorities: the need for investment and human resources for climate neutrality. Climate report, Institute for Climate Economics, 22 October; Ancelle, A. *et al.* (2022). Human capacity in local governments: the bottleneck of the building stock transition. Report, Energy Cities, April.

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information, but at the same time these resources are used only by a minority of citizens. The EU institutions should do more to utilise these information resources and increase their popularity among the citizens.

Based on the barriers and enablers outlined in this section, the next part of the policy brief proposes recommendations towards a common framework for a sustainable, just, and democratic Energy transition.[31]

[31] For more recommendations, see: Hajdinjak, M. *et al.* (2024). Prospective energy citizenship scenarios with recommendations. EnergyPROSPECTS Deliverable 5.5, European Commission Grant Agreement No. 101022492; and Thalberg, K. *et al.* (2024). Working paper with recommendations. Energy citizenship – what roles for citizens in the European energy transition? EnergyPROSPECTS Deliverable 6.3, European Commission Grant Agreement No. 101022492; and Thalberg, K. *et al.* (2024).

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Towards a common framework for a sustainable, just, and democratic European energy transition

The energy transition needs to bring everyone along. This can only be guaranteed by recognising that citizens, communities, municipalities, regions and even Member States, have different capacities to participate, which means that although the goal is common, roles and responsibilities must be differentiated. Decision-makers need to ensure that everyone can participate in the energy transition by providing conditions that will **enable everyone to undertake the necessary changes in an easy, accessible, and affordable way**, taking particular care of the most vulnerable. At the same time, it needs to be **simpler for those who want to go further**, so that they can more easily scale their activities and have a bigger impact[32].

Recommendations

Recommendation 1. Increased policy integration at the EU-level. There is a need for better coordination between different directorates of the European Commission to ensure that various social and environmental aspects of the energy transition are considered together, for example between DG Clima, DG Ener, DG Regio, DG Empl, DG Env and DG Budg.

Recommendation 2: Improve the targeting and increase the financial support for vulnerable households by raising the financing envelope for the Social Climate Fund, for example through the earmarking of more revenues from the European carbon markets.[33]

Recommendation 3. Support Member States to carry out granular surveys on the social determinants of support for and resistance against energy and climate policy measures. The French IPSOS/RTE poll can be seen as a good practice to provide robust evidence for targeted policy measures that integrate socio-economic considerations into energy policymaking. Such polls should include perceptions of benefits and challenges of the energy transition.

[32] For concrete examples, see: Thalberg, K. *et al.* (2024). Empowering collective energy citizenship for a sustainable and democratic European energy transition. EnergyPROSPECTS Policy brief 1. European Commission Grant Agreement No. 101022492; and Thalberg, K. and Debourdeau, A. (2024). Enhancing energy citizenship through business and social innovation models. EnergyPROSPECTS Policy brief. European Commission Grant Agreement No. 101022492.

[33] See, Defard, C. (2022). The need for a socially-just European Green Deal. *Policy paper*. Jacques Delors Institute.

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Recommendation 4. Different types of citizen engagement and involvement in the energy transition needs to be better recognised and communicated. Awareness-raising and information on different kinds of engagement provides concrete examples of what the energy transition could mean in citizens' everyday lives. The EnergyPROSPECTS survey has shown that most citizens consider the information provided through EU websites and social media channels to be among the most credible sources of information, but at the same time these resources are used only by a minority of citizens. The EU institutions should do more to utilise these information resources and increase their popularity among the citizens. To be effective, information needs to be presented in an accessible language, in an engaging way, should be easy to digest and comprehend (non-technical language), and not overloaded with details.

Recommendation 6. Institutionalise an EU Citizen Assembly on Climate.[34] The integration of citizen assemblies within the regular legislative procedure would increase the legitimacy and social acceptability of policymaking. To this end, adequate administrative capacity can be ensured by setting up a monitoring committee that oversees implementation and follow-up of recommendations. Concentrate on specific proposals, targeted topics, and a process designed to answer a specific question. Explore how EU climate pact ambassadors could be integrated into the process to ensure a connection to the wider public.

Recommendation 6. Support a more interactive governance through permanent Energy and Climate Stakeholder's Dialogues at all levels[35] to create spaces where citizen organisations, public authorities, civil society organisations, industries, startups, SMEs, investors, and other relevant stakeholders can discuss energy and climate policies and review the implementation progress of the EU Green Deal. Citizen involvement and engagement should be considered throughout such processes.

Such platforms could support policy efforts to reduce bureaucracy and facilitate green investments, among others. The European Commission could investigate options to deliver financial and technical support for the early stages of the establishment of such Energy and Climate Stakeholders Dialogue platforms, for example through a dedicated facility.

Recommendation 7. Make the partnership principle guiding for all climate and energy related plans, such as the Social Climate Plans and National Energy and Climate Plans.[36]

[34] See, Defard, C. (2022). The need for a socially-just European Green Deal. *Policy paper*. Jacques Delors Institute.
[35] See, Defard, C. (2023). Energy Union 2.0. to deliver the European Green Deal. *Report*, Paris: Jacques Delors Institute, November.
[36] See, Defard, C. and Thalberg, K. (2022). An inclusive Social Climate Fund for the just transition. *Policy brief*, Jacques Delors Institute, January.

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Recommendation 8. The creation of a European Facility for Citizen Involvement in Local Innovative Initiatives. This facility could serve to complement the Energy Communities Repository by supporting initiatives beyond energy communities, for example led by public actors, NGOs, citizen-based organisations, or businesses, and provide funding calls, tools, recommendations, and best practices on how to involve citizens in local initiatives and enhance energy citizenship values in such endeavours.

Recommendation 9. Earmark EU-funding and technical assistance for citizen-based organisations and initiatives, for example in initiatives like the Green Assist project and the Energy Poverty Advisory Hub.

Recommendation 10. Include research on how energy citizenship values could be enhanced within the next Horizon Europe Strategic Plan (2025-2029) or within the LIFE Clean Energy Transition sub-programme. This research should particularly aim to explore how energy citizenship values, such as citizen participation and control, democratic governance, and social inclusion, justice and equity could be further enabled by decision-makers through innovative energy transition initiatives[37].

Recommendation 11. Include support for outreach and inclusion in existing technical assistance offers for citizen-based energy transition initiatives from relevant EU initiatives such as the Energy Communities Repository, Rural Energy Community Advisory Hub and the Energy Poverty Advisory Hub. This could include the development of a database on best-practices on benefit-sharing and improving energy literacy beyond the initiative and on the inclusion of hard-to-reach citizens.

[37] See, Thalberg, K. and Debourdeau, A. (2024). Enhancing energy citizenship through business and social innovation models. EnergyPROSPECTS Policy brief. European Commission Grant Agreement No. 101022492.

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