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Deliverable 6.3

Working paper with recommendations

Energy citizenship – what roles for citizens in the European energy transition?

Description: This deliverable results from an open working document with key project outputs and a collaborative list of recommendations that have emerged from our research and stakeholder involvement.

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Authors: Karin Thalberg (JDI), Bonno Pel (ULB), Benjamin Schmid (GAL), Frances Fahy (GAL), Edina Vadovics (GDI), Anita Szőllőssy (GDI), René Kemp (UM), Marianna Markantoni (UM), Marko Hajdinjak (ARC Fund), Desislava Asenova (ARC Fund), Camille Defard (JDI), Jānis Brizga (UL), Rasa Ikstena (UL), Ariane Debourdeau (TUB), Martina Schäfer (TUB), Luisa Losada Puente (UDC), Adina Dumitru (UDC)

Contributors: Diego Quiñoy Peña (EnergyLab), Jorge Martínez Ortega (Goiener), Alexandra Revez (University College Cork/UCC), Marine Cornelis (NextEnergyConsumer), Ruth O'Reilly (SEAI), Ivars Kudrenickis (UL), Ērika Lagzdiņa (UL), Antonia Proka (REScoop), Dorothee Arenhövel (German Environment Agency /Umweltbundesamt – UBA)

Reviewers: Rebecca Corless (GAL), Frances Fahy (GAL)

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EnergyPROSPECTS partners

University of Galway (GAL)
University Road, H91 TK33, Galway, Ireland

Université libre de Bruxelles (ULB)
Avenue Franklin Roosevelt 50-1050, Bruxelles, Belgium

GreenDependent Institute (GDI)
2100 Gödöllő, Éva u. 4., Hungary

Universiteit Maastricht (UM)
Minderbroedersberg 4-6, 6200 MD, Maastricht, Netherlands

Applied Research and Communications Fund (ARC Fund)
Alexander Zhendov Street 5, 1113, Sofia, Bulgaria

Notre Europe – Institut Jacques Delors (JDI)
18, rue de Londres 75009, Paris, France

University of Latvia (UL)
Raiņa bulvāris 19, LV-1586, Riga, Latvia

Technische Universität Berlin (TUB)
Straße des 17. Juni 135, 10623, Berlin, Germany

Universidade da Coruña (UDC)
Rúa da Maestranza 9, 15001 A Coruña, Spain

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Summary

This deliverable is the result of a collaborative working paper elaborated with the EnergyPROSPECTS team and external practitioners, policy makers and experts. The content of this working paper might be published in a different format in the future.

The *'Working paper with recommendations'* builds on the PESTEL analysis performed at the EU and national level across the nine partner countries (see Deliverables 5.1 and 5.2). Firstly, these analyses are summarised to provide an overview of the political context and policy framework for energy citizenship at the EU-level. Thereafter, a list of recommendations that have emerged from project research and stakeholders' involvement in *Knowledge Exchange Workshops* (see Deliverable 6.1) are outlined. The recommendations will be further elaborated in Deliverable 6.4 *'Four policy briefs with main recommendations per target group'.*

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Table of Contents

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

1. Introduction to the deliverable

This deliverable builds on the main policy-relevant outputs from the project (see Deliverable 6.2) as well as the PESTEL analyses performed at the EU and national level across the nine partner countries (see Deliverables 5.1 and 5.2). Moreover, to complement our research, the co-creation with experts, policy makers, and practitioners is a central element of WP6, especially when it comes to formulating practical and action-oriented policy recommendations to enable energy citizenship. This deliverable is the outcome of discussions on our research through a series of collaborative exercises, such as the *Knowledge Exchange Workshops* in all partner countries and at the EU-level (see Deliverable 6.1).

Earlier versions of this deliverable have been online in the form of an *Open Working Document* from March 2023 to January 2024. Initially, the document was only open to project colleagues. A first version of it was used as a background note for the Knowledge Exchange Workshops (March-September 2023). After updating the document according to the feedback received during the workshops, participants to those workshops were invited to provide written input to the online document in the form of comments, amendments, and suggestions (November 2023 – January 2024). This deliverable is a clean version of the open document. Most comments have been directly integrated into the text, but some have been kept as footnotes as a knowledge repository for future reference.

The outline of the deliverable is as follows: Firstly, the overall framing and rationale for the project, as well as core concepts and definitions from the project are outlined. Secondly, the PESTEL analyses are summarised to provide an overview of the political context and policy framework for energy citizenship at the EU-level. Additional policy-relevant research outputs beyond the PESTEL analyses are also introduced. Thereafter, a list of recommendations that have emerged from project research and stakeholders are outlined.

Please note that the recommendations outlined in this deliverable will be further elaborated in Deliverable 6.4 *'Four policy briefs with main recommendations per target group'.* This document can be seen as a collection of collaborative ideas to be further deepened and concretised to target particular levels of decision-making in upcoming policy briefs.

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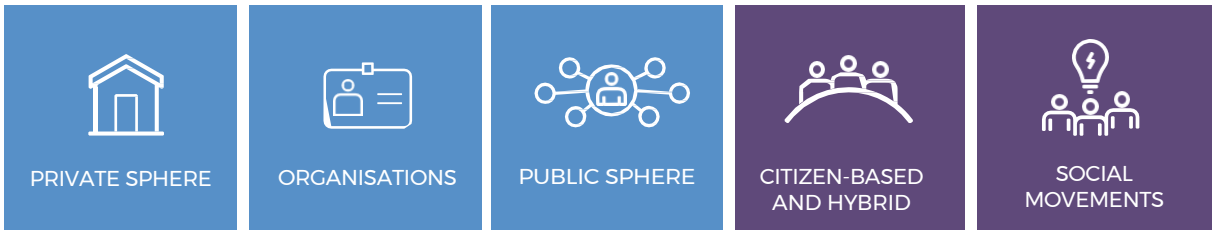
2. Energy citizenship - what roles for citizens in the European energy transition?

2.1. Energy citizenship: An introduction

The European energy transition to a climate neutral economy by 2050 offers a unique opportunity not only to decarbonise our economy, but to transform our energy systems for a more socially fair and democratic European Union. 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 energy security and price concerns[2] decision makers must make sure that policy choices do not entrench or aggravate current inequalities. EU responses to the climate crisis, social inequalities and falling trust in political institutions must go hand in hand to ensure public support for the energy transition. A key aspect in this endeavour is what roles citizens (should and could) play, and how to balance responsibilities and rights of different stakeholders in the energy transition.

EnergyPROSPECTS is a Horizon 2020 project that examines the potential of *energy citizenship* to contribute to the European energy transition. Energy citizenship is understood as forms of civic involvement and engagement 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 (see the figure below), in the fields of energy production, distribution, and energy consumption, and in the governance of the energy/climate transition.



[1] Eurostat. 2023. Inability to keep home adequately warm - EU-SILC survey. 2013-2022.
[2] Ember. 2023. European Electricity Review 2023.

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Today, energy transitions are going at different paces across the Union and citizen involvement and engagement are taking diverse forms[3] that also vary according to the specific contexts of different Member States[4]. EU policymakers are nonetheless becoming increasingly aware that public engagement will determine the success of energy and climate policy.[5] The clean energy transition is becoming everyone's business. What does this mean for citizens' roles in the European energy transition? EnergyPROSPECTS seeks to answer this question and develop policy recommendations to harness the potential of energy citizenship to achieve the EU's climate ambitions.

2.2. Energy citizenship broadens the vision of citizens' roles in the European energy transition

Within EU legislation and policy, citizen participation in the energy system is primarily conceived in three ways: as consumers; prosumers[6]; or as members of energy communities[7]. The vision of the citizen-as-consumer is enshrined in the core of EU energy policy, the Energy Union, that sets out a strategy for European energy policy integration: *"[...] our vision is of an Energy Union with citizens at its core, where citizens take ownership of the energy transition, benefit from new technologies to reduce their bills, participate actively in the market, and where vulnerable consumers are protected"* (COM/2015/080). Furthermore, the Directive on Common Rules for the

[3] See the 596 examples of energy citizenship initiatives in the EnergyPROSPECTS case database.

[4] 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.

[5] Council recommendation on fair transition proposed by EC on Dec 21, adopted in June 2022.

[6] Self-consumption of renewable electricity or *prosumerism* is recognised under the Renewable Energy Directive 2018/2001.

[7] Two types of energy communities are recognised in EU legislation: **renewable energy communities (REC)** under the Renewable Energy Directive 2018/2001 Art.2(16), 'renewable energy community' means a legal entity: (a) which, in accordance with the applicable national law, is based on open and voluntary participation, is autonomous, and is effectively controlled by shareholders or members that are located in the proximity of the renewable energy projects that are owned and developed by that legal entity; (b) the shareholders or members of which are natural persons, SMEs or local authorities, including municipalities; (c) the primary purpose of which is to provide environmental, economic or social community benefits for its shareholders or members or for the local areas where it operates, rather than financial profits;
Citizen energy communities (CEC) are defined under the Internal Electricity Market Directive 2019/944 Art. 2(11), 'citizen energy community' means a legal entity that:(a) is based on voluntary and open participation and is effectively controlled by members or shareholders that are natural persons, local authorities, including municipalities, or small enterprises; (b) has for its primary purpose to provide environmental, economic or social community benefits to its members or shareholders or to the local areas where it operates rather than to generate financial profits; and (c) may engage in generation, including from renewable sources, distribution, supply, consumption, aggregation, energy storage, energy efficiency services or charging services for electric vehicles or provide other energy services to its members or shareholders.

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Internal Market for Electricity (2019/944) establishes common rules for an integrated and competitive *"consumer-centred"* European energy market. Affordability and transparency for consumers are especially highlighted through provisions on consumer empowerment and protection, together with open access to the integrated market.

While this vision and the accompanying provisions have opened up possibilities for direct citizen participation in the energy transition, the underlying conception of citizens and their roles needs to expand to face the prevailing challenge of delivering an energy transition that simultaneously is fast, socially fair, and democratically supported. Social-economic and governance aspects of the energy transition need to be considered together with the fact that not everyone, for different reasons, can or wants to participate in the same ways. Energy citizenship, as a more holistic approach to citizen participation in the energy transition, is a promising lens to ensure that policymakers can address problems effectively, especially injustices that are present in the energy system.

As part of EnergyPROSPECTS, the conception of citizen participation in relation to energy, i.e., energy citizenship, has been expanded to provide a realistic view of how citizens engage in the energy transition across the European continent today. In the first step, five agency types can be identified, i.e. levels of action and constellations of actors, described in the chart below. This depiction of different forms of energy citizenship can provide a base for discussion for policy makers at different levels to identify which practices exist at a certain scale and what support mechanisms exist or would be needed to enable the different types of participation.

The research conducted within EnergyPROSPECTS provides evidence for legislative and policy changes that are needed to create a common enabling EU framework for citizen participation and inclusion in the energy transition.

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Agency 1 In the private sphere	Changing individual practices and household equipment ● 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[8], for example by using smart meters. ● Aspiring for self-sufficiency through off grid energy sources and storage technologies. ● Joining an energy community. ● Energy literacy measures undertaken at the household level.
Agency 2 Within organisations	Changing practices and equipment within private and public organisations ● All 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 at the workplace/ at school/ the university ● Motivate colleagues for the installation of solar energy on the roof of the organization ● Supporting the organisation in acting as an intermediary that supports other initiatives working to accelerate the energy transition.

[8] External input: https://www.esbnetworks.ie/who-we-are/beat-the-peak/is-this-a-good-time-to-get-rewarded/energy-events-and-rewards

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Agency 3 In the public sphere	Participation through public debates, elections, deliberative processes, public consultations, referendums, digital consultation platforms, etc. ● 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 to advance the energy transition. ● Shaping the political offer and the public debate with regards to the energy transition. ● Participating in the energy transition through membership or work within unions or through contributions to citizen science.
Agency 4 In citizen-based organisations and/or in constellations with different types of actors	Participation 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 by 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. ● Opportunities for direct participation in the energy system of the most vulnerable (for example through energy communities).
Agency 5 In social movements	Participation through social movements linked to various aspects of the energy/climate transition ● 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.

Table 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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2.3. How can energy citizenship be enabled in the European Union?

In order to create a common enabling framework for citizen participation and inclusion in the energy transition across the EU, the expanded understanding of citizen participation and engagement needs to be accompanied by an understanding of factors that can serve as enablers and barriers for its development. For this purpose, an analysis of the political, economic, social, technological, environmental, and legal context for energy citizenship at the EU-level was conducted[9], as well as a national-level analysis carried out in the nine partner countries of the project: Belgium, Bulgaria, France, Germany, Hungary, Ireland, Latvia, the Netherlands, and Spain[10]. The importance of these factors was assessed by experts (at the EU-level), by the project team and external practitioners, policymakers, and experts (at the national level, see Deliverable 6.1).

For the purpose of developing policy recommendations, the question that arises is: how can the different agency types of energy citizenship (outlined on the previous pages) be enabled for a more sustainable, socially fair, and democratic energy transition? From the analysis, despite methodological challenges in dealing with such wide-reaching and diverse factors, some overarching conclusions can be drawn.

First, reaching climate neutrality by 2050 will require a far-reaching transformation of our economies, activities, and everyday lives. Public engagement, trust, social acceptability, and support for the transition are therefore crucial for a socially fair and democratic transition. Unsurprisingly, social factors such as the attitudes towards the energy transition emerged as one of the most important factors at EU level. This includes attitudes towards energy-efficient technologies and services, energy awareness and literacy, willingness to invest in the transition and trust in institutions and collective endeavours. Moreover, the lack of trust in public institutions was found to be among the most important barriers for the development of energy

[9] See annex 1; Debourdeau, A. *et al.* 2022. "PESTEL Analysis of the EU Context". EnergyPROSPECTS Deliverable 5.1, European Commission Grant Agreement No. 101022492.
[10] See annex 2; 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.

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citizenship across the nine countries at the national level which pose larger questions of societal trust and democratic governance of the transition.

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 change in 2022.[11] These findings are reiterated in the results from both the EU-level and national level analyses. Commitment to participatory governance is highlighted as especially important at the EU level to enable energy citizenship, whereas political and democratic cultures that support active engagement as well as multi-level energy governance[12] structures that enable citizen involvement were found at the national level [All agency types, especially Agency 3: In the public sphere].

Second, at EU level, the agreed upon climate and energy policy targets[13] and the accompanying legislative changes under the Green Deal and the Fit for 55 package[14] function as an overarching enabling framework towards the sustainability-dimensions of energy citizenship. However, there is a risk of individualisation of responsibilities that can create social backlash if adequate support measures are not in place.[15] 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. In our analysis, the importance of measures that serve to even out socio-economic inequalities underlines this point and go hand-in-hand with the questions of attitudes and trust raised in the paragraph above.

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[11] See page 43 in the Executive Summary, and pages 564-566 in Chapter 5. 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

[12] 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).

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

[14] Examples that have received much media attention and backlash in Member States include the ban of internal combustion engines until 2035 (CO2 Emission Performance Standards Directive 2019/631/EU) and the discussions regarding the ban of stand-alone fossil-fuel-powered boilers from 2029 in the Ecodesign Directive (2009/125/EC), and the obligation to renovate worst-performing buildings under the Energy Performance of Buildings Directive (2010/31/EU) that currently are under revision.

[15] 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.

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At the EU-level, empowerment policies, including the recognition of energy poverty and vulnerable citizens as a political priority, were assessed as important for energy citizenship. Making vulnerable citizens a political priority means acknowledging citizens' differentiated financial capacities and competences to, for example, change equipment, practices and 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 [Especially, Agency 1: Within households and Agency 5: In Social Movements].

Third, financing remains the Achilles heel of the EU's ambitions climate legislation[16], 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[17] than for example energy prices and economic growth[18]. Furthermore, socio-economic as well as governance aspects need to be considered when designing financial support for the transition[19], especially if policy-makers desire to promote energy citizenship and a socially inclusive and democratic transition. Therefore, the political, social, and economic factors need to be considered together. At the national level, financing and investment opportunities that contribute to a more sustainable energy system were considered as key enablers across the countries, which echoes the findings

[16] Findeisen, F. and 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.
[17] EU-financing has been found to be a key source of funding for energy citizenship initiatives, see: Thalberg, Karin; Vadovics, Edina; and Szollossy, Anita. 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.
[18] 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: https://www.ipsos.com/en/55-europeans-fear-energy-transition-will-further-fragment-society
[19] 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 2022.

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at the EU-level.[20] Public funding is needed is in the development of electricity transmission networks and storage, that 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 [All agency types].

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.[21,22] The transition is going 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 the simplification of or assistance with administrative procedures to set up citizen-owned and financed renewable energy production and access to the grid, which is identified as a key barrier for the development of energy citizenship 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.[23] Another example is the support to and empowerment of local authorities and regions that need increased human resources,

[20] 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.
[21] In the Standard Eurobarometer 99 - Spring 2023, 73% of respondents were for a common energy policy among EU Member States.
[22] External input: Interconnections (electricity grid) that spans borders between European countries are one of the pillars of the Energy Union strategy premised on ideas of an integrated internal energy market that will help stabilise the price of energy, add flexibility to the grid and ensure energy resilience in the face of increased uncertainty over supply (i.e. drastically reducing dependence on gas imports from Russia). Energy citizenship in this context is framed beyond national borders and brings new challenges and opportunities.

[23] See policy recommendations in: Kerneïs K. 2023. "The EU framework on energy communities", Sun4all Project, European Commission, October.

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competences, and financial capacities to carry out the energy transition[24] [All agency types, especially Agency 4: In citizen-based organisations and/or in constellations with different types of actors].

2.4. Strengthen intermediation to enhance energy citizenship

Within the project, 596 initiatives that enable different agency types of energy citizenship were mapped across Europe (in EU, EEA, and accession countries). 85% of the mapped initiatives were collective, meaning that they enable collective forms of energy citizenship (see the list under section 2.2). Many of these initiatives exist in different organisational forms: most commonly as NGOs, cooperatives, and projects.

Energy citizenship initiatives do not exist in a vacuum but are part of rich ecosystems of actors that provide support for their development and functioning. A key lever for the enhancement of energy citizenship is therefore to strengthen the strategic support that intermediary actors provide.[25] In addition to the external factors that can serve as barriers or enablers of energy citizenship outlined in the section above, many energy citizenship initiatives face a range of obstacles to get their activities or projects up and running. Examples include a lack of knowledge, skills, time or resources, information asymmetry or communication problems. This is where intermediaries come into the picture. Intermediary actors can act as bridge-builders and help initiatives overcome the diverse barriers they face[26]. Figure 1 below shows the main intermediary actors found in the analysis.

[24] 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; and Ancelle, A. et al. 2022. "Human capacity in local governments: the bottleneck of the building stock transition", Report, Energy Cities, April.

[25] 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.

[26] External input: Peer to peer learning could be included in the study of intermediaries. Oftentimes knowledge transfer is more trusted and accepted when it comes from a peer.

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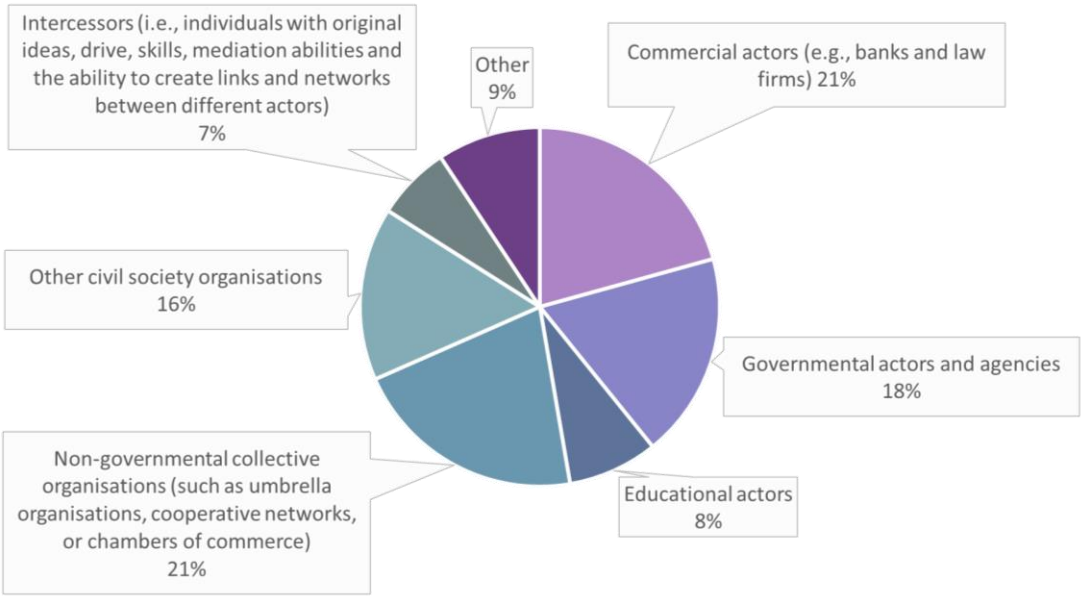

Figure 1. Grouping of key intermediary actors, distribution by percentage (N34)

These forms of intermediaries perform a wide range of services. They can carry out organisational intermediation such as setting up legal statues of an initiative, providing capacity building or negotiating with administrative authorities, financial intermediation such as capitalisation and resource mobilisation, scientific-technical intermediation in the form of technical and scientific expertise provided by for example planners, architects, photovoltaic or wind power specialists or project management specialists. Other forms of intermediations include networking intermediation that enables cooperation, exchange and networking between similar actors, information and communication intermediation that can help make the case known, provide mediation or consultation services, as well as regulatory and lobbying intermediation mainly to undertake lobbying activities directed towards regulatory processes and decision-makers. The types of intermediations found in the analysis can be found in Figure 2 below.

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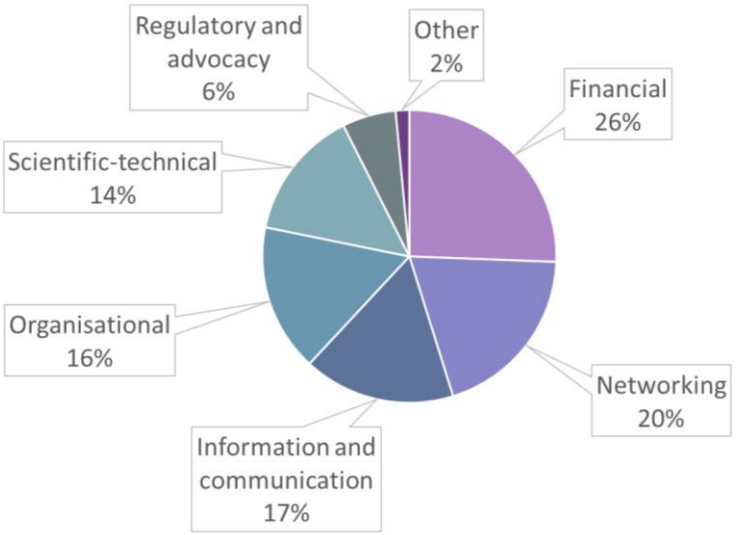

Figure 2. Distribution of types of intermediations provided by the percentage found in the analysis (N34)

The analysis shows that a combination of intermediations was needed for energy citizenship initiatives to achieve their goals, providing diverse services across the development stages of the cases studied in EnergyPROSPECTS. More than 60% of the intermediations were furthermore considered of high importance for the functioning of the cases, across all types. However, no two cases are identical, as each case is embedded into a unique and complex ecosystem of intermediation. Nonetheless, long-term, positive relationships with key intermediaries were found to be at the core of the cases' development over time.

Financial and organisational intermediation were found to be the most important forms of assistance[27]. Both kinds of intermediation are crucial in the early stages of the cases, to provide initial capital for the initiatives' activities and support organisational set-up, such as statues, registration and communication with authorities and funding organisations. For each kind of intermediation, some intermediary actors were found to be especially salient. For financial intermediation, those were governmental actors (33%) and commercial actors (23%). Regarding

[27] External input: This intermediation is conditioned by the technical adequacy of the solution (proportional to its needs and investment capacity; technological maturity of the proposed systems) and the form of amortization that depends, especially in the electricity sector, on the possibilities of interaction with the current energy market (directly related to the legislative field).

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organisational intermediation, non-governmental collective actors were found to be especially important (39%).

At the European level, the European Commission and REScoop were found to be especially influential in the goal achievement of energy citizen initiatives. The European Commission primarily acts as a financial intermediary via the funds and subsidies it provides, while REScoop provides valuable networking and knowledge exchange intermediation. On the one hand, this illustrates the importance of EU funds for the creation of cases, for example by providing initial capital, or for further development of cases through the participation in EU project consortiums. On the other hand, the administrative burden of accessing EU funding and projects was mentioned as a key barrier for many initiatives.

Intermediation is not always successful or neutral. In some instances, intermediary actors may champion certain innovations or represent certain interests that are linked to the specific form of funding. This can negatively impact energy citizenship cases' contribution to a more democratic energy system, as they may be forced to adapt their activities and projects according to that funding logic. Furthermore, the analysis showed relationships with commercial intermediaries could be challenging. Often, the requirements of commercial banks are not adapted to the organisational structures and activities of energy citizenship initiatives, which makes it difficult for them to secure loans. Relationships with intermediaries at different levels of government were also found to be troublesome at times. In some cases, a lack of appropriate support for the management of cooperatives and start-ups was found, in other cases new projects were delayed or even blocked by the administrative burdens from permitting, restrictions and state guarantees. In certain cases, the relationship with one civil servant or elected representative was found to be a crucial component to the success of projects. This finding points to the fragility of certain initiatives, as their success can depend on the willingness and stability of a single relationship.

To further support ENCI initiatives, more strategic support is needed to build their capacities, alleviate institutional barriers, and support legislative changes that can facilitate their uptake

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and acceptance in society and within the energy system[28]. In this regard, intermediaries are a key part of the solution in accelerating the development and impact of energy citizenship initiatives. Intermediation is part of the increasingly polycentric governance of the energy transition, where new forms of governance are emerging to intervene in the transformation and decentralisation of energy systems. However, intermediary work is often invisible. The analysis carried out in EnergyPROSPECTS is one part of rendering the central role of intermediation for collective citizen action visible. Still, energy citizenship initiatives will require transformative support to achieve their full potential and become viable alternatives to the 'status quo' of the current energy system.

2.5. Recommendations per agency type at the EU-level

Transversal recommendations: Enabling energy citizenship at a wider scale

- Trust in public authorities and collective endeavours is a key challenge. Political and financial frameworks need to be coherent to secure legitimacy for the energy transition and create the right conditions to achieve EU climate and energy objectives.
- There needs to be a place for everyone in the transition, therefore common but differentiated responsibilities in the transition need to be recognised: taking into consideration that not everyone wants or has the capacities to participate in the same ways.
    - Ensure that everyone can participate in the energy transition...
        - The changes that everyone should undertake have to be easy, accessible, and affordable (taking particular care of the most vulnerable).
    - … but also, make it simpler for those who want to go further.
        - Adapt and simplify legislation and access to financing for those who want to go further across all agency types.
- There is a need for a common transition narrative at the EU-level with tangible objectives that has relevance for to citizens' everyday lives.

[28] Warbroek, B. *et al.* (2018) 'The role of intermediaries in supporting local low-carbon energy initiatives', *Sustainability*, 10(7), p. 2450. doi:10.3390/su10072450.

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- Linking energy translation with energy saving and consumption habits.
- To consider energy from the point of view of the public and impoverished countries/territories.
- Energy sufficiency principles that seek to ensure fair access to energy are increasingly aligned with widespread energy efficiency measures.

Agency 1: Changes in individual practices and equipment within households

- Responsibilisation of citizens (due to for example more stringent obligations from the EU-level to undertake measures that contribute to the energy transition) must be met with the creation of adequate infrastructure and legal, administrative, financial, and technical support for citizen participation in the transition.
- The individualisation of energy action needs to be balanced through the dissemination and support of more collective opportunities (see agency type 4).
- Balance responsibilities with adequate support measures to facilitate the access to clean and affordable alternatives for all, contributing to sufficiency, efficiency, and renewable energy deployment, particularly for those least able to change or make the necessary investments.
    - Redefine energy as a public service.
    - Improved data from Member states at the EU-level that accurately represent peoples' lived experiences, social aspects of energy use and acceptability of policy designs[29].
    - Increased EU-funding for energy retrofitting of the building stock and clean mobility development (Social Climate Fund) and make it more targeted towards those who need it the most together with administrative simplification and one-stop shops to facilitate access to financing.
    - Increase the financial and human resources of local and regional authorities to carry out the transition and support citizens in this endeavour.
    - Make better use of existing tools, such as the Energy Ombudsman/Mediator for citizens to have a clear point of reference for information and support. A

29

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parliamentary nomination of the National Ombudsman and democratic discussions on how the tool can be best used, could increase legitimacy.

Agency 2: Changing practices and equipment within private and public organisations, including organisations whose core logic is the energy transition

- Private sector:
    - Provide examples for how individuals can foster energy-transition related activities at the organisations they are involved with in their daily life: workplace, school, universities etc. (e.g. employee-driven crowdfunding for the installation of solar panels at the workplace).
    - Provide examples how the private sector can enable energy citizenship within the organisation.
    - Continue to develop and support the proliferation of responsible business models (for example, electricity contracts).
- Public sector:
    - Provide examples on how schools and other public organisations can enable energy citizenship within the organisation.
    - Strengthen multi-level governance and support collaboration between citizen-based organisations, the private and public sector.
    - Provide support to and empowerment of local authorities and regions that need increased human resources, competences, and financial capacities to carry out the energy transition.

Agency 3: Participation in the public sphere through public debates, elections, deliberative processes, public consultations, referendums, digital consultation platforms, etc.

- Protect the opportunity to make one's voice heard, to influence and mobilise through the freedom of association, freedom of the press, freedom of expression and the right to demonstrate.
- Strengthen multi-level governance: make the partnership principle the guiding principle to draft and implement energy and climate-related plans, ensure that there is enough time to allow for meaningful participation and co-creation.
- Examine the possibility to integrate citizen assemblies within the regular legislative procedure and ensure adequate administrative capacity 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 synergies and cooperation with organised civil society.

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    - Explore how EU climate pact ambassadors could be integrated into the process to ensure a connection to the wider public.
- Scale-up EU funding for capacity building and technical assistance to local authorities to implement inclusive decision-making processes, innovative deliberation, or participative democracy projects.

Agency 4: Collective participation in citizen-based organisations and/or through collaboration between NGOs, public authorities, municipalities and/or private actors

- Disseminate, support, and encourage good practice cases where local and regional authorities successfully collaborate with citizen-based organisations, civil society, and private actors on implementing sustainable energy transition projects (see examples in the next section).
- Earmark EU-funding and technical assistance for citizen-based organisations, for example in initiatives like the Green Assist project as well as revenues from the European carbon markets.
- Adapt legal and financial structures to citizen-led, citizen-owned, and citizen-financed structures, for example to ensure that citizen-based organisations are eligible for commercial bank loans.
- The transposition of REC and CEC frameworks should be sped up and specifically adapted to the national circumstances (avoiding simple formal copy-paste of EU provisions in national legislation). Benefits of energy citizenship, particularly collective forms such as energy communities should be encouraged.
- Encourage the good practices of dialogue between energy communities, distribution system operators (DSOs) and transmission system operators (TSOs) that exist at the EU-level at the national level.
- Energy retrofitting:
    - Strengthen communication, financing and infrastructure for energy communities mobilising for energy retrofitting.
    - Important to work with and support sub-national governments/authorities to lead and take part in the renovation wave.
- Citizen-based innovation:
    - Increase financing and support for experimental projects in the energy transition (for example, local electricity storage) that include citizen-based organisations and communities.
- Inclusion of vulnerable communities:
    - Empower local NGOs and other forms of intermediary actors that can help rebuild trust among disadvantaged parts of the population for them to take part in the energy transition.

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- Energy communities (Renewable energy communities and citizen energy communities):
    - Address the risk of businesses hijacking the energy community model.[30,31]

Agency 5: Participation through social movements linked to various aspects of the energy/climate transition

- Protect the right to demonstration.
- Encourage dialogue and open communication channels with civil society. Ensure that the interests and demands of civil society and citizens are heard and considered.

[30] External input: Greece is a notorious case study of extensive corporate capture: the first legal framework established in 2018 led to the proliferation of business-oriented, closed "energy communities" that sought to benefit from the -at the time- generous feed in tariff. The low number of minimum members to establish an energy community, coupled with the lack of an effective governmental monitoring agency (to verify that energy communities work in compliance with the law), led to this effect. The new legal framework (May 2023) increased the minimum number of citizens that can legally found an energy community to 15 and placed restrictions on profit distributions to members. However, the CEC definition explicitly allows for businesses (15) to find an energy community, thus legitimizing the idea of creating an energy community that excludes citizens and other stakeholders.

[31] External input: Sometimes this hijacking of the energy community model is not malicious but arises due to the fact the term “energy sharing” in the Renewable Energy Directive appears only in the Article devoted to Renewable energy communities. Unfortunately, the 2023 revision of the RED II did not deal with this issue and did not remove this bottleneck.

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Annex 1. EU-level PESTEL enabling factors according to importance from expert assessment

Political	Economic	Social	Technological	Environ-mental	Legal
1. Agreed upon climate and energy policy targets with current strategic developments 2. Commitments to participative governance 3. Empowerment policies 4. EU-level political unification in the energy sector 5. Non-govern-mental initiatives towards the energy transition	1. Steering the European economy through market intervention 2. Design of and access to financing and investments 2. Spatial distribution of economic activity 3. Energy prices 4. Economic growth	1. Social attitudes towards energy transition 2. Social and individual behaviour and habits 3. Social standing (education, occupation, income and status) 4. Demographic factors	1. EU choices for integrated approaches towards energy efficiency 2. EU technological choices towards the decarboni-sation of the energy sector 3. Technological pathways for European energy transmission and distribution infrastructure 4. Digitalisation of the Energy System	1. Climate change and climatic conditions 2. Environmental damages (pollution, emission, threat to biodiversity) 3. Energy-related resources	1. Legal recognition of and measures dedicated to vulnerable consumers, energy poverty and social inclusion 2. Energy market-related rights (and duties) of consumers, prosumers and new producers 3. Legal framings and specific enhancements of ENCI forms 4. Legal uncertainties (lack of regulation and/or law enforcement, contradictions, instability, etc.)

Summary table of the factors analysed at the EU-level, according to their importance assessed by experts. See Debourdeau, A. *et al.* 2022. "PESTEL Analysis of the EU Context". EnergyPROSPECTS Deliverable 5.1, European Commission Grant Agreement No. 101022492.

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Annex 2: National level PESTEL factors (enablers and barriers) across 9 Member States according to project team assessment

Enablers	Barriers
Financing and investment opportunities that contribute to a more sustainable energy system	Inequalities in terms of income/wealth disparity and high rates of energy poverty
Political and democratic culture and traditions that support active engagement	General economic situation: High inflation rate and decreasing purchasing power
Multi-level energy governance structure that enables citizen involvement	Lack of trust in institutions and collective endeavours
Financial and technical assistance schemes that promote energy efficient buildings	Bureaucracy and red tape
Legal measures dedicated to vulnerable consumers, energy poverty and social inclusion	Insufficiently developed decentralised energy system and storage

Summary table of the most important enablers and barriers for the development of energy citizenship across Belgium, Bulgaria, France, Germany, Hungary, Ireland, Latvia, the Netherlands, and Spain. See 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.

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