



How to mainstream energy citizenship in EU laws & tools

Adapting EU regulations to best guide and support member states in furthering energy communities & energy citizenship

The concept of energy citizenship concerns rights and responsibilities for each citizen and is considered an important step towards energy transitions in a wider European energy policy context.¹ As the second in a series of policy briefs for the EC² project, this brief attempts to provide an overview of shortcomings at the *European level*, exploring in further detail the kinds of actionable recommendations that can be made at this level to facilitate and accelerate a just and sustainable energy transition.





The insights contained herein are based on the transdisciplinary research results of the citizen engagement conducted as part of the EC² project.

Our approach incorporates economic, legal and psychological elements and perspectives. These scientific insights capture and synthesise the knowledge co-created with citizens, energy communities, and municipalities in Spain, Poland, Italy, Germany, Austria and the Netherlands.²



KEY CONCLUSIONS

1. The recommendations in this brief target either **broad regulatory changes** or **specific actions and tools** (particularly in relation to the European Energy Communities Repository).
2. Easily available and **understandable information** plays a central role in strengthening energy citizenship and energy communities.
3. The **legal structures** for the establishment and running of energy communities also still need to be simplified and harmonised to increase accessibility.
4. Being an energy citizen **should be affordable**, so that large parts of the EU population can be included.

Keywords:

#EnergyCitizenship #EnergyTransition
#EnergyDemocracy #EnergyCommunities
#EnablingLegislation
#AccessibleInformation
#EnergyCommunityRepository

¹ See EC² Policy Brief #1 *Energy Citizenship: A missing piece to the energy transition puzzle?* Available [here](#).

² See EC² project (2022). Deliverable 3.3: *Catalogue of potential legal and economic barriers or facilitators of energy citizenship*. (Hereafter, 'D 3.3'). Available [here](#).

Introduction

EU directives RED II and IMED implicitly encompass the rights and duties of “energy citizens” and provide for “energy communities”, enabling citizens to take part in the energy and electricity market.³ Citizens and energy communities are still included in the rules and criteria of the market game - consisting of supply, demand, prices, efficiency, liberalisation, individual decisions or competitiveness. Therefore, a **neo-liberal market model** still determines the instruments for the energy transition: financial resources, funding systems, participation in the decision-making process, and access to knowledge and information. Moreover, in the neo-liberal model, the burden of responsibility for achieving a sustainable energy system is on **individual citizens**, who are **expected to have the necessary knowledge**, as well as being **technological, financial and managerial experts**. In this model, individual households are viewed as indistinguishable from professional energy managers - framing citizens primarily as economic actors obeying a normative economic logic. Considering the EU and its energy market as a whole, there is thus a tension between neo-liberal and citizen-oriented economic models which makes it **difficult for collective and citizen-driven energy actions to flourish**.

Our legal and economic recommendations aim at strengthening energy citizenship by empowering energy citizens and energy communities. Their degree of abstraction or concreteness varies: Whereas the more **economic-oriented recommendations** are rather concrete, some of the **recommendations regarding the law and legal techniques** are less so. This is inherent to the matter: EU directives are not directly applicable, and therefore do not seek to regulate every detail, instead allowing Member States to “translate” the content into their national system through legislation.

EU law can however be very powerful, since it secures a certain degree of uniformity, as well as making it easier for member states to implement (sometimes less popular) measures. It can further contribute to mainstreaming newer approaches (such as energy communities and energy citizenship), which have traditionally been seen as more grassroots in nature. Besides the law itself, improved **legal information is also core** to bring about energy communities. Therefore, we also provide **suggestions on how to improve the information hub provided by the EU - i.e. the Energy Community Repository**.



These recommendations arise in a wider context of tension caused by Russian military aggression in Ukraine. This may have severe consequences for energy supply from fossil fuels and for energy prices in the European Union (EU). On average the electricity prices in EU countries doubled between October 2021 and October 2022.⁴ There is a growing pressure to increase energy independence and to reduce the share of fossil fuels in energy production. In the last year many EU countries have thus accelerated their 2030 renewables targets.⁵ Decentralisation and democratisation of the energy system will strengthen Europe’s energy security, with the development of energy communities taking on additional importance (as outlined in the REPowerEU plan).⁶ Yet this will also require creating new capacities in the energy system to enable new energy communities and individuals to connect.

³ See Renewable Energy Directive 2018/2001/EU ([RED II](#)) & Directive on Common Rules for the Internal Market for Electricity 2019/944/EU ([IMED](#)).

⁴ See Green Match (2022). *European Energy Prices Increase up to 500% Compared to Pre-crisis Levels*. Available [here](#).

⁵ Austria from 87 to 100%, Netherlands from 68 to 97%, Germany from 62 to 80%, Italy from 60 to 70% and Poland from 32 to 35%. See Euronews (2022). *These EU countries are aiming for 100 percent clean power by 2030*; Ember (2022). Available [here](#); Ember (2022). *“Coal phasedown” a year on from COP26* Available [here](#).

⁶ European Commission (2022). *REPowerEU Plan*. Available [here](#).



CHALLENGES TO ADDRESS



Resource-intensive generation plant construction, inflexible ownership models:

The construction and maintenance of a photovoltaic plant is time-consuming and cost-intensive. To set up an energy community, interested parties often need knowledge and skills, since they often lack the necessary know-how to construct or maintain a generation plant. Therefore this typically has to be constructed and maintained by a *third party* - incurring additional costs. Moreover, citizens regularly have to undergo legal proceedings to create the legal form for the energy community. This, in addition to administrative proceedings regarding the plants or installations they wish to use in their energy community, can be a barrier.

On the other hand, both the electricity produced from a generation plant, as well as plant construction and operation costs, can be shared across several energy communities. This could increase the attractiveness of energy communities. This use of a generation plant in several energy communities is not precluded by RED II or IMED, yet in the Member States studied there are also hardly any legal provisions regulating such use. The possibility of sharing a generation plant by several energy communities should therefore be given in general.⁷



High seasonality and large fluctuations in electricity generation from renewable energy sources:

Electricity generation from renewable energy sources is subject to large and highly seasonal fluctuations. Geographical location also has a major influence on energy production. The capacities for generating electricity from hydropower or wind also vary between member states. In addition, there are typically time-of-day fluctuations in energy consumption within an energy community.⁸



Lack of regulations for smart meter rollout:

Smart meters are a prerequisite for joining an energy community. The EU regulations had to be transposed into national law by the individual Member States.⁹ A widespread rollout of smart meters has already begun, but has not yet been implemented in all Member States.¹⁰



Lack of readily available information on energy communities:

For people interested in setting up an energy community, it is often time-consuming and (in the case of legal advice) also costly to obtain information from a variety of sources on the various aspects. This is because setting up an energy community initially requires information on the aspects required to comply with all legal and regulatory requirements (permits needed, the installation of the generation plant, establishment of the community, and legal issues).¹¹

Under the principle of subsidiarity, translation of EU law focuses on *national*-level measures, oftentimes leaving it disconnected from local realities. More multi-level governance is necessary to fill these gaps, and provide for actions as close as possible to citizens. The Energy Community Repository is one promising tool to support this.

⁷ D 3.3.

⁸ D 3.3 §§ 3.5.3 & 4.2.11.

⁹ Including the Member States studied in EC² - Italy, Austria, Germany, the Netherlands, Spain, and Poland.

¹⁰ D 3.3 § 3.7.1.

¹¹ See D 3.3 generally, on how lack of information curtails the development of energy communities.



RECOMMENDATIONS FOR SPECIFIC TOOLS & ACTIONS AT THE EUROPEAN LEVEL:



Introduce energy assistants for energy communities¹²

A free EU- or state-funded universal assistant for energy communities should be made available to all citizens. This would assist in setting up, but also running, an energy community.

Whereas the directives should also make it mandatory to install an energy assistant, the EU's Energy Community Repository is a first step towards the idea. A **digital assistant** could help interested people in collecting the necessary information.

For instance, an energy chatbot could be implemented for the Repository website to answer citizens' questions and direct them to other relevant websites.



Provide a one-stop-shop and official point of information for energy communities

An official information point for setting up and running an energy community should be provided by member states.

Both a one-stop-shop for energy communities as well as the official point of information for energy communities should be required in the Directives.



Member states would have to decide how to best implement them, with recommendations for implementation provided in the European Energy Community Repository.



Provide a step-by-step guide on setting up an energy community (checklists)¹³

A step-by-step guide (e.g. in the form of an online and/or offline **checklist**), should be provided, showing how to set up an energy community. The Directives could make such a check-list mandatory for the member states. Two such examples come from the Community Power Coalition and the SHAREs project.¹⁴

In addition, the Energy Community Repository website could benefit from the addition of a comprehensive Q&A section and an accessible informative video for citizens interested in setting up an energy community.¹⁵



Provide information in an easy and accessible language and way¹⁶

Providing information in a short and understandable way and being available for all questions during the establishment process can help to eliminate uncertainties and encourage more people to establish energy communities.

For instance, information on the Energy Community Repository website could also be available in **languages other than English** to ensure access to information for more citizens.



Inspire creative solutions from the public

The EU energy community repository could host a yearly "energy community hackathon" where citizens can present their ideas for energy communities. The **best energy community idea** from each member state would receive funding to implement their proposal.

¹² See D 3.3 generally, on how lack of information curtails the development of energy communities.

¹³ D 3.3 § 3.1.4

¹⁴ Community Power Coalition (2020). *Community Energy: a practical guide to reclaiming power*. Available [here](#); SHAREs Project (2022). *D 4.1 Overview of existing tools and platforms to support collective actions*. Available [here](#).

¹⁵ For example, Österreichische Koordinationsstelle für Energiegemeinschaften (2023). *Schritte zur Gründung*. Available [here](#). There could also be the possibility of adding subtitles to video to make the content more accessible in other languages.

¹⁶ D 3.3 §§ 3.1.1 & 3.1.4.



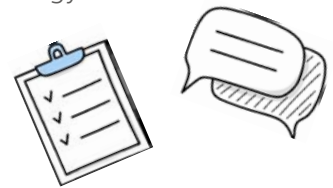
RECOMMENDATIONS FOR BROADER REGULATORY CHANGES AT THE EUROPEAN LEVEL:



Take into account that effective implementation requires changing not only energy law, but also other national legal concepts¹⁷

The implementation of energy communities into national law requires changes in both energy law and wider laws. Sometimes national differences in legal concepts such as, for example, national notions of property influence implementation. Spatial planning or heritage protection laws can also slow down or complicate the establishment of energy communities.

The EU should (in the Energy Community Repository), provide information such as **check-lists for legislators** and point at legal fields which might prove to influence the implementation of energy communities in energy law.



Push for a complete smart meter rollout and for smart grids¹⁸

Regulations at EU level should push even harder towards a complete smart meter rollout in all Member States, so that energy communities and other innovative forms of energy use (e.g. P2P) can be introduced and operated nationwide. For instance, concrete information could be available on measures available to citizens if a Member State has not yet properly transposed an EU directive.

Effective rollout also requires addressing *public concerns* surrounding data privacy and data protection. Regulations at the EU level should address these concerns, and push for devices to have the simplest possible user interface.¹⁹

Finally, smart meters are also important for a network of *smart grids*. The EU should provide the necessary legal background for the development and installation of these grids.



Promote Agrivoltaic and Agro-Hydro-Voltaic technology in rural energy communities, as an alternative to traditional PV farms²⁰

The long-term ratio between total profits and total cost is higher for Agrivoltaics and Agro-Hydro-Voltaics than for traditional PV-farms. The use of Agrivoltaics and Agro-Hydro-Voltaic technology in agriculture can help to increase crop productivity, reduce evaporation, and mitigate the risks of torrential rain and acidification. In contrast, traditional PV farms can cause negative externalities.²¹

Therefore, Agrivoltaic and Agro-Hydro-Voltaic technology should be promoted in rural energy communities as an alternative to traditional PV farms.



¹⁷ For example, D 3.3 § 3.4.

¹⁸ D 3.3 §§ 3.7 & 4.2.

¹⁹ D 3.3 § 3.7.2.

²⁰ D 3.3 § 4.2.2.

²¹ Both in the environment (reduction of the biologically active areas) and in agriculture (loss of valuable agricultural land).



Provide for VAT-free purchases²²

In April 2022, the Council of the European Union adopted a directive stipulating that Member States are free to apply a reduced VAT rate from zero to five percent on *solar modules*, including their supply and installation.²³

Such a VAT exemption should be extended to the purchase and installation of *other renewable energy equipment* (PV, heat pumps, thermal insulation, underfloor heating, energy storage), to make these technologies more accessible and affordable for citizens and energy communities.



Roll-out of micro-photovoltaic power plants for balconies, gardens, carports, etc.²⁴

In the German state of Mecklenburg-Vorpommern, the government supports the installation of *micro-photovoltaic* power plants. These are very small power plants that can be put on balconies, in gardens, on the roof of carports, etc. without the need for permits and with the aim of self-consumption.²⁵

Together with the smart-meter roll-out and the development of smart grids, a dedicated micro-photovoltaic power program should be launched by the EU.



Work to enhance the economic feasibility of EC projects²⁶

In the initial phase, public aid should be provided to help spark *engagement* in energy communities, as this initial phase is expensive. The financial incentives can vary: tax reductions, grants, reduced grid fees, preferential loans, subsidies for energy sold, etc.

In the operational phase, feed-in tariffs for the ecosystems of REC technologies should be reformed to ensure their profitability. Since affordable, stable and long-term (10+ years) financing is needed for energy citizens and energy communities, the EU could provide funding for lighthouse citizens' projects.

²² D 3.3 §§ 4.2.4 & 4.2.8.

²³ Council of the European Union (2022). *Directive 2022/542*. Available [here](#).

²⁴ D 3.3 §§ 4.2.1 & 4.2.5.

²⁵ See PV Magazine (2022). *Mecklenburg-Vorpommern will Photovoltaik-Balkonkraftwerke fördern*. Available [here](#).

²⁶ D 3.3 § 4.2 generally, especially §§ 4.2.3 & 4.2.2.



This is the second in a series of Policy Briefs aimed at exploring the concept of energy citizenship and its requirements. The series shares key insights on how the concept can be used as an effective tool for accelerating the renewable energy transition, together with citizens. The EC² project aims to support policy and decision makers through a series of actionable recommendations, targeted primarily at policy makers - from the European through to the local level.



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