dialogues
Energy citizenship for a sustainable future

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Mapping the Way: Building National Frameworks Supportive of Energy Citizenship

Increased understanding and uptake of energy citizenship[1] has the potential to make an all-important contribution to advancing the low-carbon energy transition. Evidence underscores that the active participation of individuals through their everyday energy practices contributes to tackling climate change by significantly reducing greenhouse gas emissions worldwide.[2] Public involvement in energy systems is essential to meeting energy and climate targets as well as ensuring a just energy transition in terms of processes and outcomes.

Thus, energy citizenship stands as a cornerstone of sustainable energy transition. Civil involvement in the energy realm manifests primarily in three ways: a) altering individual energy consumption patterns, such as reducing energy usage and embracing energy-efficient technologies; b) generating personal energy, including participation in energy communities; and c) participating directly in political actions concerning energy matters.

Nonetheless, research and policy analysis reveal that there remains considerable ground to cover in fostering widespread recognition of individuals as energy citizens and encouraging active involvement in energy systems. The absence of conducive conditions for public participation in energy, including supportive legislative, regulatory, and policy frameworks, poses a challenge. Approximately half of the European populace resides in rental accommodations and faces significant barriers to participating as energy producers and consumers. Furthermore, direct civic engagement in energy-related decision-making processes is limited. Certain socio-economic and marginalized groups, such as women, low-income individuals, ethnic minorities, and migrants, often find themselves excluded from energy transition endeavours.

This policy brief delves into the national legal and regulatory landscape, along with associated challenges and opportunities in the practice of energy citizenship, with a particular emphasis on citizen-driven energy initiatives. The analysis encompasses eight European nations: Austria, Bulgaria, Germany, Greece, Italy, Norway, Switzerland, and Turkey. It provides an overview of the principal findings from interdisciplinary research conducted within the framework of the international initiative DIALOGUES.

KEY POINTS

- Energy citizenship is a **powerful vehicle for energy system transformation** in the global struggle against climate change.
- Active public participation in energy systems is **still problematic in many European countries**, especially in terms of energy production and direct political action.
- Evidence suggests that the majority of energy citizenship initiatives **fall short of inclusivity and diversity**. There are few examples of energy communities that are truly inclusive and representative.
- Certain socio-economic and protected groups, such as **women, low-income individuals, ethnic minorities and migrants, are often not involved** in energy transition processes.
- **Enacting inclusive and participatory national frameworks** on energy-related issues is essential to advancing energy citizenship.
- It is crucial to implement **holistic approaches to gender equality and gender justice in the energy system**, with a focus on closing the gender income/ wealth gap, supporting women in their roles in the energy transition.
- Future policies should aim to enhance citizens' perceived capacity to act by **promoting successful citizen-driven initiatives and provide** practical information about promising practices.

Devising Legal and Regulatory Frameworks Conducive to Energy Citizenship

The significance of the concept of energy citizenship in political and academic discussions is on the rise. Nonetheless, deficiencies in legal, policy and institutional settings continue to hamper a large-scale adoption of an energy citizenship mindset and practices. National legislative and regulatory frameworks are fundamental to enabling public participation in energy systems as they delineate the roles which citizens can undertake, including whether and how they can generate energy individually or collectively, and if they can be involved in political processes through mechanisms for public participation, surveillance and consultation.[3]

The EU acquis directly affects the legal and policy context in Austria, Bulgaria, Germany, Greece and Italy, and may indirectly influence the non-EU countries, Norway, Switzerland and Türkiye.[4] Placing citizens at the centre of the energy transition, the Clean Energy for all Europeans Package (CEP) shows the evolving role of the public in shaping energy policy. The key constructs introduced in the CEP - 'active customers', 'renewable energy self-consumers', 'citizen energy communities' (CECs) and 'renewable energy communities' (RECs) - are designed to empower individuals and collectives in the shifting energy landscape. By emphasising the importance of environmental, economic and social community benefits over financial profits, the CEP's definition of energy communities brings to the fore the need for inclusive energy citizenship.[5]

While providing a general framework, the CEP also gives Member States considerable leeway in transposing the relevant directives. This latitude has resulted in a wide variety of legal and regulatory formulations across the EU.[6] In the studied eight countries, there are various similarities and variances in the national energy and climate laws and regulations in terms of facilitating the energy transition, supporting citizen agency, ensuring inclusiveness, and setting overall priorities. This also applies to the legal provisions creating the context for collective citizen-driven initiatives, including energy communities.

Comparative Insights on the Legal Settings for Energy Citizenship Initiatives

Energy communities play an essential role in directing citizens toward using renewable energy sources or adopting energy efficiency practices. Generally energy communities appear to be more widespread as well as discursively more prominent in some of the examined countries such as Germany, Norway and Switzerland, than in others, such as Türkiye and Bulgaria, where energy communities are still in the early stages of development.[7] Research shows that the relevance of energy communities to civil engagement varies across national contexts in accordance with legal, policy, administrative, socio-economic, cultural and other factors. It is important to note that in all eight countries, energy communities are yet to come to play a prominent role in the energy transition in terms of installed capacity or renewable energy generation.

The models of RECs and CECs have been legally implemented in Austria, Germany, Greece and Italy.[8] In Austria, the scope of action given by the RED II has been used in favour of consumers through the provision of significant incentives to members of RECs and the implementation of low-threshold criteria.[9] Similarly, in Italy, recent legislation has eased the requirements for REC establishment, including in relation to size and connection to the grid.[10] In Germany and Greece, while an enabling regulatory framework for RECs exists overall and RECs have been established in numerous local communities, certain legal and regulatory shortcomings remain. For example, in Germany, transposition omissions concerning the requirements that decentralised energy generation and consumption by private actors be enabled and encouraged are hindering innovations, such as new business models. In Greece, gaps that ought to be addressed include the need to provide financial support to energy communities with non-profit legal character and energy communities of collective energy offset, as well as tackle the pronounced regional disparities in the geographical concentration of energy communities.

In Bulgaria, although there is a formal transposition of the legal and regulatory framework set by the RED II, energy citizenship is not specifically definited nor encouraged through specific energy and climate policies. The role of individuals and citizen collectives in the energy market and the energy transition is not addressed in the existing legislative and strategic documents. Local authorities and citizen initiatives that intent upon launching projects for shared energy production, consumption and storage encounter multiple challenges and uncertainties, especially heavy administrative permitting procedures, implementation delays, grid connection issues and absence of institutional support for planning, deployment and monitoring.

Turning to the non-EU countries, a commonality across Norway, Türkiye and Switzerland is that EU legislation and spillover effects from the European energy market affect all three states, albeit to varying degrees. The impacts of bilateral cooperation and the EU energy acquis seem to be the most significant in Norway, and relatively more limited in Switzerland and Türkiye. Norway maintains close cooperation with the EU on energy matters and has incorporated EU legislation in the governance of the internal energy market through the EEA agreement.[11] The EU acquis also indirectly influences the Norwegian context by impacting the European energy market which is Norway's principal external market for oil, gas and electricity. Small-scale hydropower, wind and solar power installations are among the electricity production facilities which may be owned by private actors without an industrial license, hydropower plants being the most popular form of local energy communities.

In a similar vein, Türkiye strives to bring its energy laws and policies in line with the EU body of law and the European Green Deal.[12] While it has ratified the Renewable Energy Directive (RED II) and the Electricity Directive 2019, Türkiye has not yet made respective legal amendments, including to legally define and regulate RECs and CECs. This delay has detrimentally impacted the inclusiveness of the domestic energy transition, particularly in the electricity market. Currently, collective energy production is only possible for natural or legal persons that share a tariff group and a connection point.

In the Swiss context, there is no overarching framework agreement with the EU in the field of energy.13 The involvement of private actors in the energy transition is fostered, among other things, through the decentralisation of electricity generation. The legal regulation of auto-consumption, including at the collective level in a so-called RCP ('regroupement dans le cadre de la consommation propre'), allows small-scale producers to use and/ or sell all or part of the energy generated.

Recognising that legal and regulatory challenges that pose significant barriers to energy citizenship calls for **identifying and sharing promising practices across countries** in enacting supportive legal frameworks, while also acknowledging contextual differences and the need for tailored approaches. In conclusion, the CEP sets out objectives that help create energy-citizenship-friendly environments, however, considerable efforts are still required to firmly embed these provisions in national policies. Moreover, with a view to designing robust energy citizenship frameworks, an emphasis should be placed on promoting inclusive engagement of various groups of citizens and **integrating lessons from their diverse experiences into energy and climate regulation.**

Securing Inclusivity in Citizen Engagement

Presently, a pivotal issue concerning citizen participation and justice in the energy transition is **inclusivity**. In the studied states, certain socio-economic and protected groups face serious barriers to taking part in traditional and new energy systems. Although national contexts vary, such groups typically include **women, persons with low income, ethnic minorities and migrants.** In many cases, specific cohorts emerge as **underrepresented and/ or hard-to-reach** from the perspective of the energy transition. This is particularly the case as regards participating as energy producers and political subjects - such groups tend to be **confined to exercising their energy citizenship only through energy consumption**, for instance by being involved in energy conservation initiatives and awareness-raising campaigns. Out of 124 energy citizenship initiatives reviewed which involved underrepresented groups in their activities, 86% focused on consumption.[14]

For example, the Roma ethnic minority in Bulgaria is excluded from transition processes as a result of a complex array of factors, in particular social marginalisation, undereducation, poverty, and institutional discrimination. Energy professionals in Türkiye underscore the problem of underrepresentation of women and young people in the energy system. In Austria, age, geography, and gender have a significant effect on opportunities for civil participation in the energy transition.

Notwithstanding progress towards gender diversity, there remains an **overwhelming lack of gender equality in the energy sector across the eight countries** as well as gender inequalities in relation to energy issues, such as energy poverty.[15] Those challenges have been emphasised by multiple energy professionals in the context of in-depth interviews, including experts in Germany, Türkiye, Italy and Norway.[16] Research on gender, energy and climate change strongly suggests that the gender dimension is of critical relevance to the energy transition.[17] Therefore, gender should be systematically included and addressed in policy efforts aimed at encouraging energy citizenship, also through **'gender-responsive' and 'gender-transformative approaches'**.[18]

The interdisciplinary studies which have been carried out point to the conclusion that **explicit gender mainstreaming[19] in energy law** is present only in the case of Austria - in the Integrated National Energy and Climate Plan (NECP) and the National Climate and Energy Strategy. In Bulgaria, Germany, Italy, Norway, Switzerland, Türkiye and, to a large degree, Greece, gender mainstreaming in the field of energy is yet to be implemented. Moreover, the collection of gender-disaggregated data on energy-related matters continues to be absent in most of the countries. An **important forward-looking development** in Greece has been the adoption of a gender strategy by the Ministry of Environment that is in charge of climate change adaptation, and the introduction of the requirement for mandatory participation of women in energy communities. In Türkiye, steps have been undertaken to improve awareness at the ministerial level about the role of women and gender justice in the energy sector.

New Evidence on Inclusivity and Diversity in Energy Citizenship Initiatives

Ensuring inclusive energy citizenship is also a major challenge when it comes to collective public involvement through citizen-driven energy initiatives. For instance, in Germany, Norway, and Italy, as illustrated by membership statistics and data from interviews with stakeholders, the **members of energy communities are generally male, older, of higher socio-economic status, and part of the majority population** (in terms of ethnicity, ability, sexual orientation, etc.). In addition, only **12% (44) out of 375 energy citizenship initiatives analysed** take into account the specific needs of underrepresented groups.20 Legal and regulatory provisions significantly impact the opportunities available to different socio-economic groups to take part in RECs and CECs.

The conducted international research has yielded conclusive results only about Austria, showing that national law has met the RED II requirement that RECs must also be open to consumers living in low-income or vulnerable households.21 In Austria, the legal and regulatory framework supports the participation of low-income and vulnerable households in RECs through financial relief and subsidy disbursement. In practice, however, this is not sufficient to achieve adequate participation of vulnerable households in RECs as there are other necessary conditions, such as availability of information and time.

Another major participation barrier are membership fees which prevent low-income individuals from joining energy communities. Other hindrances are the use of narrowly technical terms in recruitment and the perceived necessity of previous experience or knowledge of energy systems for becoming a member. Language can also be an obstacle to migrants and inividuals of a migrant background engaging in citizen collectives, as in the case of Germany and Austria. Moreover, energy communities secure their members via networks, leading to the recruitment of people with similar socio-economic characteristics.

Consequently, many energy communities remain homogeneous and non-inclusive – a conundrum which has been framed as the "membership/ club effect". In order to avoid bias, the leaders or active members of energy communities need to **implement diversity recruitment strategies**, a first step in this direction being awareness of inclusivity issues. Researchers observe a growing understanding of diversity and gender apsects among the members of some energy communities, though such initiatives may not have sufficient capacity to implement subsequent measures (as many members work on a voluntary basis).

PROMISING PRACTICES

Examples of energy citizenship initiatives that have sought to involve hard-to-reach groups in the design and implementation of related activities include: **EnergyMeasures**, a cross-national initiative that includes partners from Bulgaria, **Klimaschutz in unserer Hand** in Germany, the **C3E International Initiative** in Austria, **Turkish Women in Renewable Energy and Energy Sector**, and **WenCoop** in Greece. These undertakings have adopted sensitive approaches to underrepresented groups, seeking to engage vulnerable households, different gender groups, and people with a migrant background. A focus of these initiatives is the provision of practical support of energy-deficient households in enhancing their energy efficiency through affordable measures and adjustments in behaviours and practices.

Female participation in energy communities is limited in most of the countries. Numerous empirical findings indicate that **perceived lack of knowledge about energy topics is a crucial impeding factor**, and that women tend to underestimate their own knowledge in STEM fields. This challenge is aggravated by the popularity in energy communities of technical language, technical discussions as well as high-handedness which may create an atmosphere where women do not feel comfortable. In the case of Germany, a study suggests that women are interested in the energy transition but often lack the time or the finances to get involved owing to care responsibilities and the gender income/ wealth gap.[22]

Although 'gender-blind' approaches are still prevalent[23], awareness in this regard has increased in some states, including Italy and Germany. As a result, efforts have made been to improve female participation in collective energy initiatives by changing regulations and developing training programs. Across the countries, providing trainings to enhance women's skills and self-confidence ought to be complemented by **measures to foster more accepting environments** where females and other underrepresented groups could engage freely.

What's Next: Policy Recommendations

Fostering public agency in the energy transition requires interinstitutional (across state institutions) and intergovernmental (across the levels of government) management in pursuit of two major objectives: 1) **empowering energy citizens through building their capacity to engage**; and 2) **creating arenas, mechanisms and spaces for citizen participation**. Efforts to build national frameworks that ensure the realisation of these objectives should aim to:

- In several of the examined countries, in particular Bulgaria and Türkiye, there should be in place enabling legislative and regulatory environments **based on clear and measurable goals and objectives** for individual and collective citizen involvement in the energy transition.
- Across the eight countries, it is crucial to set up governance mechanisms to stimulate participation in energy communities, including by: providing incentives to members (e.g. subsidies, tax relief, and economic assistance); setting low-threshold criteria for establishment (as regards to size, connection to the grid, proximity among members etc.); providing institutional support for planning, deployment and monitoring; and encouraging new business models. Such mechanisms should be informed by national- and regional-level assessments of the barriers to the establishment and operation of energy communities.
- Remove administrative obstacles to the creation of energy communities, such as burdensome permitting procedures, implementation delays, and grid connection difficulties.
- In designing and executing regulatory and policy measures, consider social groups that are underrepresented or hard-to-reach when it comes to the energy transition. Formulate narrowly-tailored approaches to enable and support the participation of such groups in energy systems. Such approaches should be underpinned by **regular data-based evaluations and needs assessments** of the situation and vulnerabilities of underrepresented cohorts.
- Introduce systems for collection of data on energy-related questions (e.g. energy consumption, participation in energy communities, energy poverty) disaggregated by characteristics such as sex, gender, age, race, ethnicity, disability, socio-economic status, religion, etc.
- Reform relevant national legislation so as to ensure inclusivity of energy communities in terms of engagement of underrepresented groups.
- Implement **holistic approaches to gender equality and gender justice in the energy system**, with a focus on closing the gender income/ wealth gap, supporting women in their roles in the energy transition, and facilitating changes in the working atmosphere in the energy sector – including in energy communities – towards more inclusive workplace cultures. There is an urgent need to implement explicit gender mainstreaming in energy law and policy. Bolstering capacity to act and making available participation arenas necessitates that the proposed regulatory and policy orientations and mechanisms be complemented by the following additional policy steps:
- Develop dedicated measures to **increase civil awareness and knowledge about climate and energy-related issues**. A first step would be to include energy topics in primary education curriculums (energy saving, renewable energy sources, energy transition, and energy citizenship). Secondly, national and local authorities need to secure large-scale delivery of public lectures and training courses on energy literacy (e.g. opportunities for individual and collective energy production and political action; the consequences of households' energy-consumption habits, etc.). Public lectures and courses must be made accessible to everyone, including underrepresented and hard-to-reach groups. Thirdly, information campaigns should be conducted on social media to counteract disinformation and/or misinformation about the energy transition and the climate crisis.
- Enhance citizens' perceived capacity to act and perceived ability to change current circumstances (individual and collective efficacy) by **promoting successful citizen-driven initiatives**. Through providing information about promising practices, state institutions, in particularly local authorities, could contribute to dislodging popular myths that energy communities are non-existent or exclusive (representing only particular groups in a community).

Energy citizenship may produce positive spillover effects across social systems, by helping to address unjust distribution of costs and benefits in the energy transition, increasing energy efficiency behaviours and practices and democratizing energy generation and sharing, some of the most important drivers of the energy transition in the EU.

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