

Supported by:



on the basis of a decision
by the German Bundestag



SunSharing

SunSharing- Supporting Solar Energy Communities in SEE

Report on the state of play regarding solar PV energy communities
and crowdfunding initiatives in Croatia

This document is prepared under the project “SunSharing - Supporting Solar Energy Communities in SEE”. This project is part of the European Climate Initiative (EUKI). EUKI is a project financing instrument by the German Federal Ministry for Economic Affairs and Climate Action (BMWK). The EUKI competition for project ideas is implemented by the Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH. It is the overarching goal of the EUKI to foster climate cooperation within the European Union (EU) in order to mitigate greenhouse gas emissions. The opinions put forward in this document are the sole responsibility of the author(s) and do not necessarily reflect the views of the Federal Ministry for Economic Affairs and Climate Action (BMWK)

Table of Contents

- 1. Executive Summary 2
- 2. General overview of the adoption of legislative framework for energy communities 3
- 3. Overview of the existing energy communities or cooperatives 5
- 4. Assessment of obstacles and potential for development of ECs 6
- 5. Local government's role in energy communities and citizen energy initiatives 7
- 6. Overview of the recent crowdfunding initiatives 9
- 7. Assessment of the availability and effectiveness of the crowdfunding initiatives in forming of the citizen energy projects 9



1. Executive Summary

Key issues in the sector to be addressed by the SunSharing project

There is high potential for solar energy in all partner countries of this project, especially on roofs of possible beneficiaries (e.g., residential buildings, schools, public utilities and municipal buildings). However, apart from some crowdfunding initiatives in Croatia and community projects in Greece, there is a lack of innovative business models that will stimulate citizens to invest in renewable generation jointly. As a result of the lack of experience and awareness, both citizens (investors) and owners/operators of buildings with PV plants (beneficiaries) are missing out on economic, social and environmental benefits. The main issues in all partner countries come from a lack of proper legislation on energy communities and crowdfunding. In Bulgaria and North Macedonia, specifically, there is no legislation on energy communities, while in Croatia and Greece, there is a partial and incomplete transposition of the EU directives.

One of the reasons for this issue is the lack of communication between investors (citizens), potential beneficiaries (residential buildings, schools, municipalities, public utilities) and policymakers.

Key issues in Croatia include legal and practical issues with implementing crowdfunding initiatives, lack of proper transposition of citizen energy and renewable energy communities from EU directives. Some sub-laws and rulebooks are currently under development by the national regulatory agency, but they are not promising to achieve incremental changes in the energy system.

Embedding the project in the target country's climate policy framework

Energy communities are addressed within two main strategies referring to energy development, as well as the Law on the electricity market and the Law of renewable energy sources and highly efficient cogeneration. Crowdfunding, on the other hand, is not officially addressed by a single strategy or law, it is dispersed in the Income Tax Law, Corporate Tax Law and the Contribution Act. Laws passed by the Croatian Parliament raise questions about the quality of transposing EU directives and the role of citizens in the energy transition. Analysis of these laws and discussions with stakeholders highlight limitations on citizen participation in the energy transition, barriers in the legal and administrative domains, lack of local adaptation of directives, and insufficient legal certainty due to inconsistent definitions and conflicting requirements. The major obstacles related to citizen energy communities include legal form, geographical area of operation, membership restrictions, and complex procedures. To successfully implement the energy transition and involve citizens and energy communities, it is

necessary to revise the laws by expanding the scope of energy community activities, reducing administrative regulations and procedures, and harmonizing terminology and defining criteria.

All project partners carried out an analysis of current policies and legislation in the respective countries (HR, EL, BG and MK), while focusing on drivers and barriers for implementing energy communities and starting crowdfunding initiatives.

2. General overview of the adoption of legislative framework for energy communities

The Croatian government has adopted the definitions of CEC (Citizen Energy Community) and REC (Renewable Energy Community) through the Electricity Market Act and the Renewable Energy Law, respectively. The EU principles regarding participation and governance have been incorporated into the definitions, with CECs being required to be autonomous and limiting participation from medium and large enterprises. CECs are also required to explain in their founding documents how they will ensure voluntary participation. Energy communities are limited to non-profit organizations, but it is unclear whether this covers cooperatives, leading to legal uncertainty that could hamper their adoption. Interestingly, the principles of governance and participation are not as detailed for RECs as they are for CECs. Regulatory oversight is in place, at least for CECs, to ensure transparency and adherence to these principles by energy communities.

The eligibility criteria based on geographical scope are significantly limiting, which could excessively restrict participation and hinder the ability of energy communities to operate in different areas of the market. Additionally, there is no clear official relationship between the REC and CEC definitions. While the two definitions have similar eligibility and governance/participation principles, the principles are more detailed for CECs than for RECs. However, CECs also have strict geographic limitations, causing confusion and blurring the difference between the two definitions. Therefore, there is a need for clarification on the relationship between the two definitions to provide citizens and communities with certainty and encourage social innovation. The current framework appears to be a mere formality, with several restrictions that could discourage citizen engagement.

The upcoming amendments to the Law on Renewable Energy Sources and High-Efficiency Cogeneration and the Law on the Electricity Market aim to improve the framework for implementing renewable energy sources and create a more favourable market environment. The changes in the laws

are intended to stimulate the use of renewable energy sources, facilitate investments in sustainable energy projects, and contribute to national goals regarding the energy transition and greenhouse gas emissions reduction. Specifically, the amendments to the Law on Renewable Energy Sources enable self-consumption facility owners to remain in the self-consumption system even if they produce more electricity than they consume, and it introduces the obligation to measure and display the excess electricity. The amendments to the Law on the Electricity Market include the full operability of support schemes for renewable energy sources and simplification of conditions for forming citizen energy communities. The proposed changes are being implemented urgently to promptly remove barriers and encourage greater utilization of renewable energy sources and the establishment of citizen energy communities.

3. Overview of the existing energy communities or cooperatives

There are several energy cooperatives operating in the Republic of Croatia, including:

- Green Energy Cooperative (ZEZ) was established in 2013 as a result of the "Development of Energy Cooperatives in Croatia" project implemented by the United Nations Development Programme (UNDP) in Croatia. After the project's completion, ZEZ continued its independent operations and became a leading organization for energy cooperatives in Croatia and the region.
- Energy Cooperative Otok Krk aims to provide private, legal, and social entities on the island with access to renewable energy sources and energy efficiency, with the goal of reducing dependence on fossil fuels. The cooperative develops models and practices and collaborates with local stakeholders to achieve this objective.
- KLIK (Križevci Climate Innovation Laboratory) is an energy cooperative that was created in the process of transforming the Cities of the Future of Southeast Europe. Their main purpose is to build the resilience of the local community and leave the city better than it was before them. KLIK's vision is to be a center where citizens' needs and curiosity are transformed into action, and careful planning of actions leads to the realization of their mission - creating a sustainable and resilient local community focused on energy transition and climate resilience.
- Solar Cooperative Hvar provides support to citizens in the process of utilizing solar systems and promotes energy efficiency through various renewable energy sources.
- BAN-UNION Cooperative is an agricultural and energy cooperative that produces healthy food using its own renewable energy in an environmentally preserved setting.
- Energy Cooperative Lug operates in the Karlovac and Zagreb County areas and promotes the use of renewable energy sources through a project of installing solar panels on the roofs of citizens.

These energy cooperatives aim to promote the use of renewable energy sources and energy efficiency while providing support to citizens and the local community in achieving these goals.

Currently, there are no active energy communities in the Republic of Croatia. The main reason for this is that citizen energy communities are expected to be non-profit, but they face complex legal and administrative procedures such as registration in the Register of Non-Profit Organizations, obtaining permits for energy activities and registration in the energy community register maintained by Croatian energy regulatory agency.

4. Assessment of obstacles and potential for development of ECs

Croatia has incorporated provisions on Renewable Energy Communities (RECs) and Citizen Energy Communities (CECs) in its national legislation and has also established rules for the registration of energy communities. However, the government has not evaluated any obstacles or possibilities for the development of RECs and has not provided specific details on the elements of the enabling framework. Certain provisions in the new law, such as geographic restrictions for activities and membership, as well as the registration and licensing process, pose significant barriers to energy communities and are disproportionately burdensome. No support schemes have been established, and while some rules on energy sharing have been developed, there are no incentives to encourage this activity. As a result, energy sharing is currently not feasible due to other barriers to registration and licensing.

Overall, there is a need for clarification on the conceptual and regulatory framework for RECs, CECs, and energy sharing. Additionally, a dedicated enabling framework and support mechanism that facilitates the emergence of energy communities are still lacking.

The government is legally required by national law to assess the existing obstacles and potentials for the development of renewable energy communities in the territory of the Republic of Croatia. However, it has not yet done so.

Some of the guidelines that would enhance the opportunities for the functioning of energy communities are:

- Removal of unjustified regulatory & administrative barriers
- DSO duties around cooperation with ECs and facilitation of energy sharing
- Fair, proportionate, and transparent registration & licensing procedures
- Regulatory capacity building for public authorities
- NECP reporting on enabling frameworks
- Support Scheme adapted for RECs

5. Local government's role in energy communities and citizen energy initiatives

The role of local government in energy communities and citizen energy initiatives in Croatia is of crucial importance. However, there are certain challenges that impact this role. Slow and disinterested local bureaucracy can hinder progress and project implementation. Additionally, processes vary depending on the location, creating inconsistency and complicating the planning and execution of initiatives. Clear explanations and handbooks are needed to facilitate understanding of the processes and requirements. Currently, the registration process for citizen energy communities is almost unfeasible and carries a similar level of complexity as obtaining permits for more intensive energy activities. These challenges require adjustments to ensure the support of local government and facilitate citizen participation in energy projects.

Local self-government units offer various possibilities for supporting energy communities. Cities, as owners of public buildings and land, hold significant potential for implementing renewable energy and energy efficiency projects. They can enhance their capacities through the involvement of external experts, as well as by strengthening local networks and empowering citizens through information and education. Leveraging their access to local media, businesses, and non-governmental organizations, cities can effectively collaborate with energy communities. The increasing recognition of energy and green topics at the local political level further emphasizes their importance. While cities are willing to adopt proven concepts from other municipalities at the national level, it is crucial for institutional development to transcend individual motivations and address energy and environmental issues systematically. Moreover, cities can provide co-financing for documentation to citizens and communities, offer spaces for energy community activities, and contribute to covering operational costs. In the long term, cities can become part of energy communities, align public procurement with strategic city documents, issue strategic and action plans to support citizen energy and energy communities, and provide additional forms of assistance. However, certain barriers persist, including the lack of long-term vision and authentic measures in energy plans and strategies, inadequate organizational decisions, siloed work within local self-government units, fear of scrutiny from supervisory bodies, and challenges in identifying motivated personnel within the structures of local self-government. Addressing these barriers and leveraging the potential of local self-government units can lead to substantial advancements in supporting energy communities.

Local self-government units are often unfamiliar with the concept of energy communities, and those who are aware of it lack a detailed legal framework for practical implementation. They prefer to entrust public projects to experienced organizations for better project outcomes. However, local self-government units view the idea of involving citizens and promoting energy solutions positively. Some units already have strategies like SEAP and SECAP, but those do not include concrete measures to support energy communities. They can support these projects through land consolidation, provision of public spaces for installations, and by utilizing efficient state co-financing tools.

6. Overview of the recent crowdfunding initiatives

"Križevački sunčani krovovi" (Križevci Solar Roofs) are the first citizen energy and crowdinvesting project in renewable energy sources in Croatia, performed in 2018-2019. They were implemented through crowdinvesting campaigns in collaboration with the Green Energy Cooperative and the City of Križevci. The first project allowed citizens to invest their own funds with an annual interest rate of 4.5% for 10 years. It involved the installation of photovoltaic power plants on two public buildings. This initiative led to the establishment of a local citizen energy initiative called KLIK (association formed as an energy cooperative), which currently manages the Energy and Climate Office of the City of Križevci, the first office of its kind in Croatia. Following the successful first project, a new crowdinvesting campaign was launched for the installation of a 30 kW solar plant on the roof of the "Franjo Marković" City Library. Investors were offered an investment opportunity with a 1% annual interest rate over a 10-year period.

7. Assessment of the availability and effectiveness of the crowdfunding initiatives in forming of the citizen energy projects

Crowdfunding initiatives can become an important tool in Croatia for the development of citizen energy projects. These platforms have provided a means for citizens to actively participate in the transition towards cleaner and more sustainable energy sources. However, despite the availability of crowdfunding options, several challenges like complex regulatory and legal procedures hinder their effectiveness. As a result, the formation of energy communities and citizen-driven energy projects has been limited. Addressing these challenges and streamlining the crowdfunding process could unlock the full potential of citizen energy projects, allowing for wider community engagement, increased renewable energy deployment, and a more sustainable energy future in Croatia.