

The European legislative package **Clean energy for all Europeans** has given a new legal status to energy communities, allowing citizens to collaborate with local authorities and small and medium-sized enterprises for joint investments in energy assets and to participate in energy markets. They are communities based on local energy production and self-consumption, which improve energy efficiency while also reducing environmental impact.

Although energy production in the Balkans is mainly based on fossil fuels, with renewables generally limited to biomass and large hydroelectric plants, there has recently been an increase in interest in EU clean energy, with citizen-led initiatives for energy transition focusing on solar.

According to a study, there are at least 190 energy communities in the countries of **South-Eastern Europe.** The vast majority, if not all, are found in Greece, with as many as 168 energy communities, while the other countries in the region settle on smaller numbers: 12 in Croatia, 8 in Slovenia, one in Bulgaria, and one in Romania.

## **Energy communities in Greece**

Greece is becoming a leader in the region in community energy generation thanks to the introduction of new regulatory frameworks in 2018 which implemented European legislation.

Among the many Greek energy communities, the largest in the country is Minoan Energy , founded in 2019 in Crete, which reached 400 members in three years and has two solar photovoltaic installations. Minoan Energy also provided energy assistance to 50 low-income households affected by the 2021 earthquake. This community was also awarded a European Sustainable Energy Award for their pioneering work in the use of citizen-led renewable energy.

Also in Greece, another interesting reality is the Electra Energy social cooperative, based in Athens. The cooperative, which promotes energy efficiency and savings through awareness campaigns, the development of new partnerships, and local networks, tries to remedy energy poverty by donating a part of its production to families who need it most. Electra Energy wants to build a solar photovoltaic power plant in the Corinth region, which will be based on the community "virtual-net-metering" model. It means that this model will allow community members to purchase a share of the installation based on their consumption and benefit from solar production, reducing their annual electricity bill. The solar power plant will power more than 130 homes and small businesses, producing 750,000 kilowatt hours of clean solar energy annually for 25 years, overall saving 7,500 tons of greenhouse gas emissions.

## **Energy cooperatives in Croatia**



Croatia is another country with interesting examples of local energy cooperatives. In the city of Križevci, the first citizen crowdfunding projects for renewable energy started in 2018 and 2019. These projects consisted of citizens investing in the installation of solar panels on the roof of the development centre and park technology of the municipality. The projects – the result of the collaboration between the city of Križevci and the Green Energy Cooperative of Zagreb, an organisation created in 2013 that promotes the development, use, and investment in renewable energy by citizens – have been a success and, in 2020, the KLIK energy cooperative was founded in Križevci.

KLIK's main objective is to help develop an energy independent city and promote the transition to climate neutrality. The community uses innovative tools, including blockchain technology, to connect micro-grid and peer-to-peer electricity trading. This community, through the active involvement of the local population, has managed to secure over 50,000 Euros in domestic investments for the local production of renewable energy, with a significant reduction in greenhouse gas emissions, equal to approximately 7.72 tons of CO2 saved every year.

Also in Croatia, on the island of Krk, there is a decennial experience of the Otok Krk energy cooperative, founded to promote energy self-sufficiency and decarbonisation among the inhabitants of the island of Krk by decentralising production and digitising the service, democratising it.

There are currently 175 individual homes with small PV systems on the island, and the goal is to double the number of homes with PV systems by the end of the year and connect all homes with PV to a smart grid, thus creating an energy community. The cooperative has also launched a project which involves the installation of 1,000 individual small photovoltaic systems and two large systems capable of producing energy for the entire island, including electric means of transport. The project aims to produce energy from renewable sources so that the island can be self-sufficient during the winter and sell the excess energy in the summer.

## What role can Cohesion policy play?

According to a recent analysis, EU member states have the possibility to support these transformative energy community projects thanks to cohesion policy funds. Also going to make up for the most important limitation that these initiatives encounter, namely attracting investments.

There are already virtuous examples among some member states, such as those of Slovakia and Hungary, which mention energy communities in their operational programmes and which are presumed to be able to finance this type of initiative thanks to European funds.



In fact, for the 2021-2027 programming period, over 92 billion Euros of European funding will be dedicated to specific objectives of a "greener Europe", and almost 39 billion Euros could be used by states and local authorities to invest in creation of energy communities. Furthermore, Interreg territorial cooperation programmes could be used to stimulate the creation of cross-border energy communities.

Source: balcanie caucaso