



NESOI
EU ISLANDS FACILITY

Community-Supported Energy:
A Step to Community SOLAR Islands

SOLAR ISLANDS



KORČULA, CRES-LOŠINJ



“An estimated 85% of island residents cannot own solar systems (for instance, because roofs are physically unsuitable or under cultural protection). The project will allow them to go solar even so!”



This project is supported by the EU Islands Facility NESOI. NESOI has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement N°864266

The European Islands Facility NESOI aims to unlock the potential of EU islands to become the locomotives of European Energy Transition. To do so, NESOI aims to mobilize more than €100 Million of investment in sustainable energy projects to give EU islands the opportunity to implement energy technologies and innovative approaches, in a cost-competitive way. NESOI has selected 56 such projects across the European Union and provide them with financial resources and technical support.



A Step to Community SOLAR Islands

ABOUT THE PROJECT

Project Promoters Energetska zadruga NOVI OTOK Korčula
 Otočna razvojna agencija za očuvanje otočja Cres-Lošinj

Stakeholders Towns of Cres and Lošinj, Municipalities of Vela Luka and Blato, The Farmers' Association, Local Entrepreneurs, and the Association of Private Landlords

 **Country** CROATIA



Sector

**ENERGY
COMMUNITY**



PROJECT VALUE 10,500,000 €

DESCRIPTION

- SOLAR Islands is a joint action of the local communities of the islands of Korčula, Cres and Lošinj to start the installation of a communal solar power plant on each of the archipelagos through a crowd-investment model.
- The local community of the island of Korčula will teach the local community of the Cres-Lošinj archipelago how to establish and run a cooperative.

AIM OF THE PROJECT

The main objectives of the project include raising the awareness of local communities about the use of renewable energy sources, encouraging cooperation between different stakeholders to establish energy cooperatives and providing access to renewable energy to those who would otherwise not be able to set up their own power plants.

FUTURE STEPS

The next steps are to prepare the elaboration of connection possibilities, and to define the electricity sales model with potential partners. We are also considering the possibility of involving banking institutions to secure the necessary funds. Our ideal goal would be to directly sell electricity to users as a producer cooperative.

HOW THE EU ISLANDS FACILITY NESOI SUPPORTS THE PROJECT

- 1 Assessment of the existing documentation and studies
- 2 Cost Benefit analysis and socio economic and environmental impact evaluation
- 3 Definition of the technical, economic and financial project inputs
- 4 Risk analysis and identification of available mitigation strategies
- 5 Financial modelling and identification of target scenario
- 6 Analysis of possible governance and legal structures
- 7 Legal advices to set up a local community with focus on crowd-investing
- 8 Compliance with the applicable national law on taxes, financial and social security
- 9 Identification of financing sources (crowdfunding, banks, alternative funding opportunities)
- 10 Action plan and identification of project monitoring procedures





INTERVIEW WITH

Ivan Zoković, NOVI OTOK Cooperative

Q: How was the project initially designed? Why choose this specific sector?

A: The project focuses on the creation of energy cooperatives in local communities on the islands of Cres, Lošinj and Korčula with the aim of setting up, managing and financing communal photovoltaic power plants. The project wants to use already existing technology to reduce development costs, but opens the possibility for later implementation of new solutions and technologies.

Q: What are the challenges faced by the project? How does NESOI help overcome them?

A: Through cost-benefit analysis and other studies, we came to the conclusion that the initial idea we had about group financing (in a way to create a project and simply publish a call for financing) is not feasible in Croatia due to regulatory restrictions. The only way to implement the project was by establishing a cooperative, which provided the opportunity for interested investors to first become members of the cooperative, and then to invest in the project. Interested investors who do not want to join a cooperative have the option of external investment by concluding an investment contract with the cooperative.

Q: What is the project's impact on citizens as well as on the local economy and environment?

A: Our model is based on encouraging the local population, both natural and legal persons, to actively get involved in the project. We especially cooperated with local self-government units, including towns such as Cres, Mali Lošinj and Korčula. In addition, individuals also got involved, i.e. people who are interested in our project and decided to sell their land in order to enable its realization. Also, we enabled people with lower paying capacity to participate in the financing of the project in such a way that we did not set a lower limit for the stake. Therefore, one of our goals is to enable local stakeholders to actively support and participate in the implementation of the project.

THE IMPACT ON LOCAL COMMUNITY



1 Local Economy

Crowdfunding that is planned to be done as a key part of the project will allow generate financial returns for the community. Community assets (solar panels) are used to generate profits locally, within the community. Members will have local control over financial resources and profit sharing. Surpluses can be reinvested in community benefit funds and other activities. Co-investments can also help create local maintenance services jobs and generate stable return for investors.

2 Social Acceptance

Islanders want to be listened to without judgment and they want their input to make a difference. That's why we want to turn the bad image of large investments in renewable energy into a PLEASE IN MY BACK YARD. PIMBY is an attitude, a commitment, an identity of a local energy community. It's about a feeling that islanders are part of something bigger and grander that they can pass on to their children and grandchildren. It's about defining themselves as forward-looking and modern.

A Step to Community SOLAR Islands – Technical Data

FOCUS ON BLOCKCHAIN TECHNOLOGIES IN RENEWABLE ENERGY COMMUNITIES

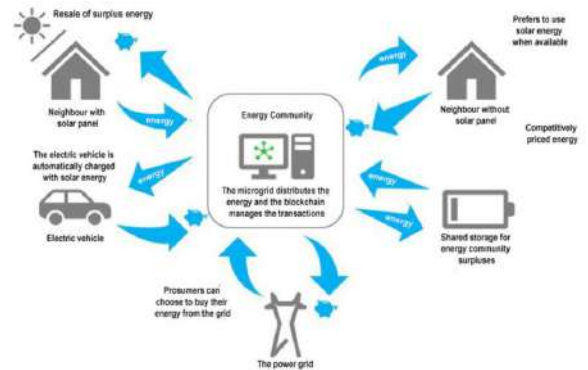
Producing clean electricity from renewable sources in an environmentally responsible manner can be done through a cutting-edge co-financing approach.

The uniqueness of the concept is that a significant portion of the investment should be made by cooperative members, i.e., locals and other stakeholders interested in funding renewable energy sources on the islands.

A community Solar Islands project is a solar power installation that allows people to go solar even if they do not know how, or are limited for any of reasons. Community Solar Islands project, through a crowd-investment model offers a way for virtually anyone to go solar.

One of the ideal cases for improving efficiency and security by utilising blockchain technology is crowdfunding. For that reason, this example is where blockchain technology ideally blends into a crowd-investment model by bringing efficiency. This can help lowering management costs and democratising investment platform to small investors, and security in virtue of distributed ledger and accounting, preventing a potential single bad actor to bring down the whole project.

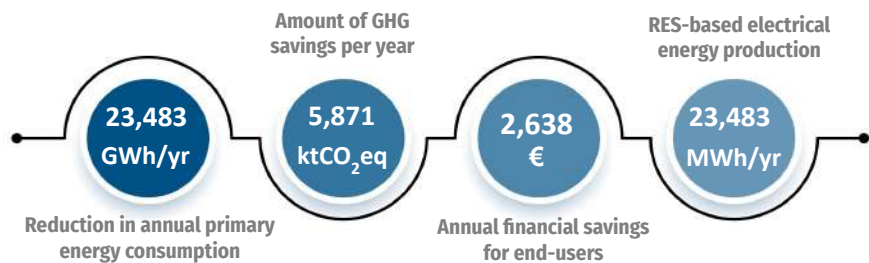
This way, blockchain lowers the cost and actually makes investment in small-scale green energy projects viable and profitable venture for local communities.



Schematic representation of an energy community using blockchain technology

(Chris Martin, How Blockchain Is Threatening to Kill the Traditional Utility, Ljubljana Slovenia June 2018. CIRED)

KEY NUMBERS OF THE PROJECT



REPLICABILITY IN OTHER ISLANDS

This initiative to develop a solar power plant through a cooperative was launched primarily with the aim of testing this type of model. If this model proves to be successful, we will be able to apply it in other places, as well as to use other more innovative technologies. The possibility of replication is unlimited, and we have already started developing similar models on land. This model can be applied anywhere. One of the goals of the project is to enable local communities to recognize the financial profitability of such projects, which can ultimately promote the region as energy independent. Also, it should be noted that cooperation between project initiators, especially energy cooperatives, can be extremely useful regardless of their geographic location. This cooperation enables the exchange of experiences and skills, and we made this initiative concrete by founding the Association of Energy Cooperatives in Croatia.

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 Photo in summary page: author: P.J.L., source: https://commons.wikimedia.org/wiki/File:Kor%C4%8Dula_overview.jpg, license: CC-BY-SA-3.0, modifications: none



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