



NESOI
EU ISLANDS FACILITY

Local energy community of A Illa of Arousa

CLER ILLA DE AROUSA



ILLA DE AROUSA

“The CLER of A Illa de Arousa will be a non-profit entity that encourages the participation of citizens so that an effective exchange between consumers and prosumers takes place.”



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.



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ABOUT
 THE PROJECT

Project Promoters

 A Illa de Arousa Council
 Arousa en Transición Association


Stakeholders

 Local public sector
 Citizens

 Local commerce and SMEs
 Local industry

 Electric power distribution
 company


Country Spain

Sector Energy community

PROJECT VALUE 81,450 €
DESCRIPTION

Both the municipality and a group of citizens want to create a local renewable energy community (CLER), leading to the creation of a citizen association "Arousa in Transition", with the aim of mobilizing the Arousa society towards the creation and implementation of the CLER.

AIM OF THE PROJECT

The main objectives are to promote the installation of renewable energy on the island, manage and share the energy generated through innovative "Demand Response" systems, promote energy efficiency in homes of the islanders, fight against energy poverty, and promote sustainable mobility systems and installation of recharging points.

FUTURE STEPS

The renewable energy community of A Illa de Arousa is formed and the installation of the first PV plant and a public charging point is underway. In the coming years the PV electricity production will be further increased, and new innovative solutions are investigated. For example, low-power wind energy and tidal energy for RE production and reversible hydraulic pumping for energy storage.

HOW THE EU ISLANDS FACILITY NESOI SUPPORTS THE PROJECT

- 1 Assessment of the key project sizing drivers.
- 2 Design of the operation of each area taking part of the community.
- 3 Cost Benefit analysis and socio economic and environmental impact evaluation.
- 4 Risk analysis and identification of available mitigation strategies.
- 5 Definition of the technical, economic and financial, fiscal project inputs.
- 6 Definition of the required environmental permitting procedures.
- 7 Definition of the legal form, compliant with Spanish and European legislations.
- 8 Financial modelling and identification of financing/funding options.
- 9 Action plan and identification of project monitoring procedures.
- 10 Analysis of existing planning documentation.
- 11 Identification of suitable technical options.





CLER ILLA DE AROUSA

Local energy community of A Illa of Arousa – Technical Data

FOCUS ON ENERGY COMMUNITIES

The participation of the City Council of Arousa in the European Clean Energy for EU Islands project resulted in the development of an energy transition agenda. The municipality also has an Action Plan for Climate and Sustainable Energy (PACES) within the initiative of the Covenant of Mayors. Both documents include the need to create a local renewable energy community. The objective of the energy community is to provide economic, social and environmental benefits to its members and the territory, instead of having a profit-making purpose. The actions of the energy community Arousa en transición are the following.

Promotion of renewable energy facilities (mainly PV solar energy and mini wind energy) and sustainable mobility on the island.

Design and implementation of energy storage systems and electric recharging infrastructure.

User service office, which citizens can visit for consultation on energy generation technologies and energy efficiency in general.



The Illa de Arousa island's connection with mainland and the mussel farms, very characteristic in this area
 (Source: image provided to NESOI)

Community advisers "Arousan Energy Coach" who will carry out feasibility studies for electricity generation facilities and energy studies for homes at risk of energy poverty

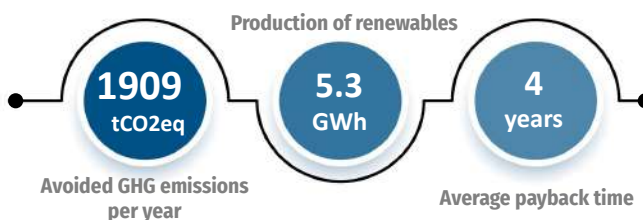
Project website, with sections dedicated to seeing renewable generation and community consumption in real time

An intelligent electrical distribution network, to manage the system in the form of "demand response".

EXPECTED ENVIRONMENTAL BENEFIT

Through the energy efficiency interventions on public and private assets, realization of energy storage systems; renewable energy generation; sustainable mobility solutions etc., CLER will help to avoid approximately 1909 tons of CO₂ emissions per year. It is foreseen to install up to 1500 kW of renewable energy sources in Arousa, mainly PV, alongside the setting up of a decentralized Smart City system. This system will help to balance the grid and increase its independence.

KEY NUMBERS OF THE PROJECT



REPLICABILITY IN OTHER ISLANDS

CLER Illa de Arousa will be an example of the establishment of a local energy community backed by the municipality. CLER will serve the benefits of local citizens and SMEs in making renewable energy attainable and affordable in Arousa. This type of local energy community can be as big or small as needed; either connecting a few neighbors, or to cover an entire municipality. Therefore, the results are highly replicable in both islands and the mainland.

Photo in the title page: photographer: Luis Miguel Bugallo Sánchez (Lmbuga), source: https://commons.wikimedia.org/wiki/File:A_Illa_de_Arousa_09.jpg, license: CC-BY-SA-3.0, modifications: none