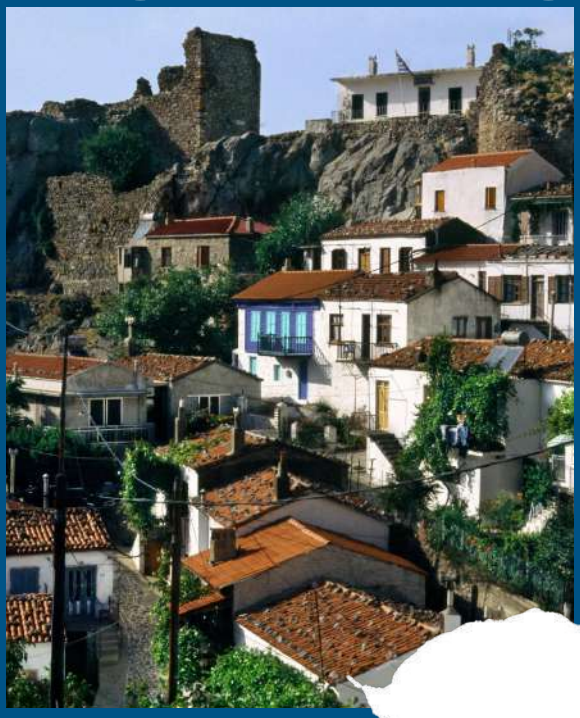
NESOI
EU ISLANDS FACILITY

EneRgy plAnning for Clean Energy Transition for SamothRACE

RACETRACE



SAMOTHRACE

"The Municipality and the citizens have taken clear decisions against large scale RES plants aiming to export electricity to the mainland and favour projects serving local power needs."

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NESOI
EU ISLANDS FACILITY

RACETRACE

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 an provide them with financial resources and technical support.

EneRgy plAnning for Clean Energy Transition for SamothRACE

ABOUT
THE PROJECT

Project Promoter Municipality of Samothrace

Stakeholders Municipality of Samothrace; Joint Energy Community; Municipal Port of Samothrace

Country Greece | **Sector** Energy transition plan | **PROJECT VALUE** 30 M€

DESCRIPTION
The project will elaborate the island's clean energy transition agenda (CETA), to be developed through a participatory procedure involving public authorities, an existing Energy Community, environmental associations, businesses, academia and local stakeholders. Potential solutions have already been identified to diversify the local RES portfolio: geothermal energy (for electricity and/or heating), micro-hydro and wind energy.

AIM OF THE PROJECT
First, the island dynamics will be described, providing information on the geography, economy, population and energy system through excessive data collection. Second part focuses on the island transition path. For the case of Samothrace to reach a full decarbonization by 2050, some potential solutions have already been identified and will be further examined.

FUTURE STEPS
The transition governance follows, to determine the role of each actor in achieving the vision. Subsequently, possible transition pathways are identified based on four pillars: electricity generation, heating and cooling, transport on the island, transport to and from the island.

HOW THE EU ISLANDS FACILITY NESOI
SUPPORTS THE PROJECT

1. Socio-economic, territorial and environmental analysis
2. Definition of the energy balance of consumption and emissions of the Local Authority
3. Analysis of the local RES potential and of local heating and cooling demand
4. Climate change risk analysis and vulnerability assessment
5. Analysis and mapping of regional, national and European planning tools
6. Support in participatory processes
7. Support in the drafting of the CETA
8. Identification of measures to reach the defined objectives
9. Action plan and monitoring system, allocation of responsibilities for its implementation
10. Mapping of the main financial instruments available to finance the identified actions
11. Technical support in communication and dissemination of the results

New Energy Solutions Optimised for Islands

NESOI

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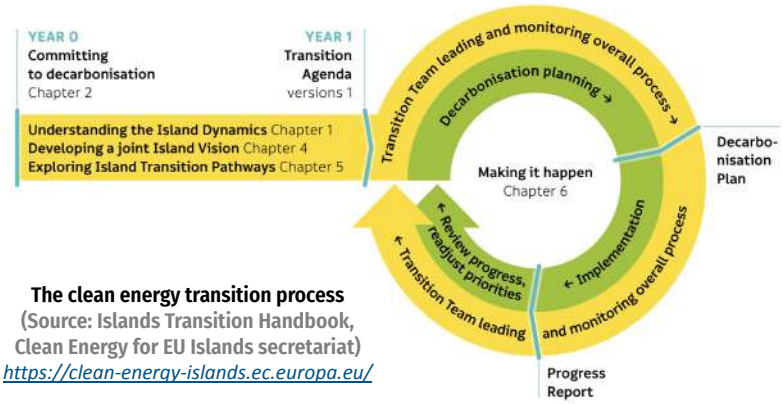
RACETRACE

EneRgy plAnning for Clean Energy Transition for SamothRACE – Technical Focus

FOCUS ON

THE DEVELOPMENT OF A CLEAN ENERGY TRANSITION AGENDA



The clean energy transition process
(Source: Islands Transition Handbook, Clean Energy for EU Islands secretariat)
https://clean-energy-islands.ec.europa.eu/

Samothrace belongs to the framework of the Clean energy for EU Islands initiative*. There, islands are invited to develop their Clean Energy Transition Agenda (CETA). It is a strategic roadmap for the transition process towards clean energy. It is designed by the local community, for the local community.

On Samothrace, the strategy is to engage citizens early to facilitate the implementation of Samothrace CETA. Attention is specifically paid that the proposed interventions would respect the ecosystem and benefit exclusively the local communities.

In the RACETRACE project, the CETA vision is developed through a participatory procedure involving various local stakeholders. Possible transition pathways are identified based on four pillars: electricity generation, heating and cooling, transport on the island, transport to and from the island. The selected pathways will be finalized in the end of the CETA preparation process.

- Diversification of the local RES Portfolio with geothermal, micro-hydro, and wind energy.
- Coupling RES output with storage to support exclusively the island needs.
- Installation of smart marinas to provide charging services for the ferries
- Investigating sustainable energy-independence strategies for e-mobility, municipal buildings, street lighting, or public spaces.

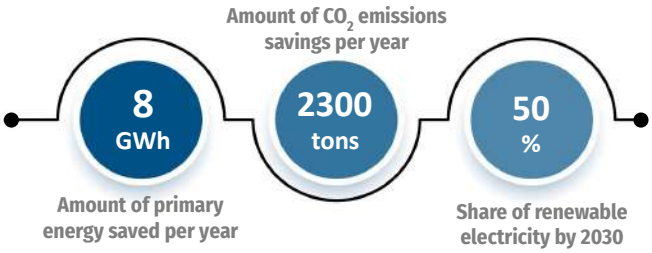
EXPECTED

ENERGY SAVINGS AND RENEWABLES SHARE

The vision will be aligned to the energy planning baseline scenario will be based on the national target of 32.5% reduction of the energy consumption by 2030 compared to 2005 emissions set in the 2019 National Energy and Climate Plan. This vision corresponds to a minimum of 8 GWh primary energy savings per year. The projects proposed in the CETA will have a positive impact in the renewable share. Samothrace will set a target for a 50% share of renewable electricity by 2030, and full decarbonization by 2050. The impact in the overall energy share depends on the evolvement of the three sectors (energy, transport, heating & cooling).

KEY NUMBERS

OF THE PROJECT



REPLICABILITY

IN OTHER ISLANDS

The solutions proposed, first implemented by the Municipality can effectively roll-out to the island as a whole. Both the CETA development procedures and the proposed solutions can be easily replicated in every Greek interconnected island especially in islands that are not going to get interconnected to the mainland. The participation of local citizens in local energy planning and their transformation from passive consumers to active players of the energy system is aligned with the EU's directives and is gradually adopted as a standard practice.

CERTH CENTRE FOR RESEARCH & TECHNOLOGY HELLAS

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