New Energy Solutions Optimised for Islands

## NESO

**EUROPEAN ISLANDS FACILITY** 

Using wave power will allow decreasing Halki's dependency to the expensive and polluting diesel power plants located in Rhodes.

The EU Islands Facility NESOI is pleased to introduce the clean energy projects receiving its support:

## **NEPTUNUS**

Wave energy potential and in-depth analysis for the realization of a wave energy power station on Halki island



Island HALKI Project promoter

Municipality of Halki

Sector

Wave energy **Project value** 

2 M€



## What is the project about?

- The municipality of Halki has set as a primary goal the transition of the island's energy system to a renewable power generation model that will cover or exceed its energy needs.
- In line with this objective, the project consists in conducting an in-depth analysis of the wave energy potential, to identify a suitable location for a wave energy power station and to undertake the permits and approval procedures, while ensuring the protection of the environment and the local ecosystem.

## How will the EU Islands Facility NESOI support the project?

- Assessment of the key project sizing drivers
- Identification of suitable technological options given existing project sizing requirements
- Study by a civil engineering company regarding the condition of the relevant marine structures at the site and the estimated installation cost of a project to the breakwater
- Definition of the required environmental permitting procedures
- Cost Benefit analysis and socio economic and environmental impact evaluation
- Definition of the technical, economic and financial, fiscal project inputs
- Risk analysis and identification of available mitigation strategies
- Assessment of existing procurement options (e.g. tender, PPP, etc.)
- Financial modelling and identification of target scenario
- Identification of financing/funding options
- Action plan and identification of project monitoring procedures





