

OPTILE: decarbonising the supply of electricity to island grids

The challenge of decarbonising island grids

Current electrification solutions for island territories are mainly based on the use of thermal power plants whose fuel supply is ensured by maritime transport from the continent. As this mode of operation emits carbon and is expensive, the use of offshore renewable energy presents major interests from an ecological and economic point of view. The latter will depend on the energy resources present in the vicinity of the site under consideration and the capacity to exploit them through recovery systems, the development of which is being boosted to meet these challenges.

Towards low-carbon, low-cost and reliable energy

With a duration of 3 years and a budget of €1.5M, the OPTILE collaborative research project will provide tools to decarbonise the supply of isolated grids (island, offshore platform, aquaculture farm), by increasing the share of renewable energy in the energy mix. It will also make it possible to validate the electrical stability and protection against cyber risk of such a grid. Ten complementary partners make up the consortium led by France Energies Marines:

- A multi-energy company, TotalEnergies, and an aquaculture farm, Saumon de France,
- Two developers of ocean energy recovery technologies: Corpower Ocean and Sabella,
- A specialist in energy storage and conversion solutions: Entech Smart Energies,
- Three academic partners with complementary skills: ENS Rennes, Nantes Université and the Université de La Réunion.

A call to island communities

The OPTILE partners are keen to share the progress and results of their work with island grid systems operators. They will therefore regularly organise public webinars during which it will be possible to exchange ideas with the project's scientists and to propose future case studies. Let's hope that synergies will emerge on these occasions and that they will contribute to the process of decarbonisation of the energy balance initiated by the French State.

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OPTILE project in short



⇒ Visit the project [web page](#)

Duration: 36 months (2022-2025) | **Budget:** €1,5M

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