Marine energy and mining resources

ECOSFARM

ASSESSING AND OPTIMISING THE CONTROL OF MARINE ENERGY PARKS FROM THE DESIGN STAGE

At a time when developers of energy generators, in association with turbine manufacturers, are constantly optimising their machinery in terms of size, lifespan and reliability, marine renewable energy is also focused on optimising the control of whole arrays of generators.

The ECOSFARM project aims to create a generic digital simulation tool with which to evaluate control strategies, both for fixed and floating offshore wind farms and tidal power plants. This tool will use a detailed description of the physics of both tidal flow and turbines, to be used during the advanced design phase as a means of checking and refining the existing pre-designs for the relevant plant. It will for example allow developers to assess and improve their proposed control strategies for a given arrangement of turbines before they are integrated into real offshore plants, and to confirm that they are arrayed correctly on the development site.

The ECOSFARM project will perfect an innovative methodology for designing and optimising the control of marine energy parks. This innovation will employ existing tools and methods to develop an industry tool for optimising the control of a marine energy park from the earliest stages of the project.

The ECOSFARM project is also officially recognised by the S2E2 cluster.

Partners

COM_PROJECTS_CATEGORIE_PARTNER_ENTREPRISES

D-ICE Engineering, Nantes

Research centers

École Centrale de Nantes, Laboratoire de recherche en Hydrodynamique, Energétique et en Environnement Atmosphérique (LHEEA), Nantes [Project Developer]
Université de Nantes – IREENA, Nantes

Funder

- WEAMEC

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