Offshore Renewable Energies

Press release

03 September 2019

1st offshore campaign off Dunkirk to study the interactions between wind turbines and underwater dunes

An understanding of the ecosystem and the evolution of underwater dunes

Formed by the combined action of marine currents and swell, hydraulic dunes are relatively frequent in the future areas where offshore farms are planned in the North Sea and the English Channel. As part of the electrical connection of these farms, cable laying must be optimized to limit interactions between moving seafloors and cables. Assessing the impact of wind farm installation requires a better understanding of the natural evolution of these ecosystems and the relationship between sediment and habitat dynamics. In addition, due to their extreme morphological variability and potentially high travel speed, hydraulic dunes may have an impact on wind farms and require increased monitoring operations.

The need for offshore campaign

To study these issues, the DUNES collaborative research and development project started last April. In this context, several campaigns with seabed surveys are planned from 2019 to 2021 on the site of the future Dunkirk wind farm. The first two will be conducted from September 4 to 6 and from September 23 to 25, 2019. On the agenda: sampling of marine fauna (from microorganisms to fish) in order to better understand the animal communities in the area and the functioning of the dune ecosystem. These campaigns will be completed in October 2019 with a mapping of the seabed. The objective? To understand the ecosystem of underwater dunes and their dynamics.

Partners with complementary skills

For a period of 3 years, the DUNES project receives financial support from the French State, managed by the National Research Agency (ANR) as part of the Investments for the Future Programme and France Energies Marines. It is scientifically managed by the Shom and coordinated by France Energies Marines. 9 partners (academic laboratories, private companies and sea professionals) form a consortium with complementary skills and contributions, guaranteeing quality scientific work. Beyond the characterisations, this project will produce recommendations.

Contacts: Mélusine Gaillard, Communication officer - melusine.gaillard@ite-fem.org - T. +33 (0)2.98.49.98.27

Main information on DUNES project

Subject: Impact of offshore wind projects on the dynamics of underwater dunes
Duration: 3 years (2019-2022)
Financial support: this project receives financial support from the French State, managed by the National Research Agency (ANR) as part of the Big Investment Plan (ANR-10-IEED-0006-25), and from the Institute for Energy Transition, France Energies Marines
Coordinator: France Energies Marines
Scientific pilot: Shom
Consortium partners:

France Energies Marines in short

Identity: Institute for Energy Transition (ITE) dedicated to Offshore Renewable Energies (ORE) and supported by Investments for the Future Programme
Activity: Research, development, innovation and services in the field of ORE
4 scientific and technical programmes:

- Site characterisation
- Technology design
- Environmental integration
- Farm optimisation

Staff: 35 collaborators (27 FTE)
Annual budget: €2.5 million
Date of creation: 15 March 2012
Headquarters: Bâtiment Cap Océan - 525, avenue Alexis de Rochon - 29280 Plouzané - France
2 regional offices: Atlantic Office in Nantes, Mediterranean Office in Marseille

france-energies-marines.org

Shom in short

Identity: French public administrative body, under the supervision of the Ministry of Defence

Missions:

- Support to defence
- National hydrographic service
- Support for public policies and for the actors of the sea and coastal areas

Staff: 524 employees

Fleet: 5 vessels

Annual budget: €58 million

Year of creation: 1720

Headquarters: 13 Rue de Châtellier - 29200 Brest - France

Offices: Toulouse, Saint-Mandé, Nouméa and Papeete

shom.fr