FRANCE ENERGIES MARINES

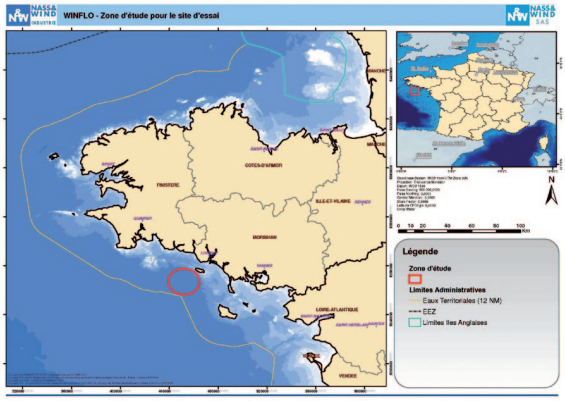
GROIX

Floating Offshore Wind Test Site

Groix Floating Offshore Wind Test Site is one of the five tests sites that are being implemented and coordinated by France Energies for the different types of MRE technologies, including two sites dedicated to floating offshore wind, reflecting the existence of two distinct markets and metocean conditions. The test site is being developed jointly with the Winflo project, led by Winacelles (Nass&Wind Industrie, DCNS, Vergnet), which consists in the deployment and operation of a pre-commercial floating wind farm. The site benefits from the strong support from the Brittany Regional Council and local authorities, as part of the overall regional commitment towards the development of a performing marine renewable energy industry. The test site is due to be operational by 2016 with the test of a first floating offshore wind turbine planned to start shortly after.

The test site is located in southern Brittany, off the Groix Island, presenting typical Atlantic metoceanic conditions. The offshore area will be located in water depth ranging from 60 to 70m allowing the deployment and test of large multi-megawatt wind turbines. The test site will offer two berths with a maximum total installed capacity of 12MVA. The subsea cable will connect the site to the electrical grid on the mainland, via the onshore substation. Developers will benefit from a very good wind resource with wind speeds typically situated between 8 and 10m/s. The site is well situated to provide all the required services to developers with Lorient and Brest ports which offer a wide range of industrial facilities.

France Energies Marines Test Sites are a key component of France Energies Marines overall offer and objectives of providing support from the concept stage through to technology qualification.



GROIX TEST SITE CHARACTERISTICS:

• Water depth	60m to 70m
• Seabed	Rocks and sand
• Max. cumulated capacity	12MVA
• Max. individual caoacity	6MVA
• Mean wind speed	8.6m/s at 100m
• Instrumentation	LIDARs, ADCPs, Hydrophones, wave gauges etc.

GROIX TEST SITE MAIN ACTIVITIES:

- Test performance and reliability of Floating Offshore Wind Turbines and their related equipment.
- Provide Metocean data to the developers.
- Conduct research activities on the environmental impact of FOWT.
- Assist developers in the optimisation of installation, operations and maintenance solutions.
- Develop and test new sub-systems related to MRE technologies (instrumentation, connectors etc.) benefiting from a well monitored environment.
- Support the overall sector R&D activities and efforts.

WINACELLES

NASS&WIND INDUSTRIE · DCNS · VERGNET GROUPE · Région BRETAGNE · INVESTISSEMENTS D'AVENIR

contact@france-energies-marines.org • www.france-energies-marines.org