



## 2nd year of monitoring at sea on the Groix and Belle-Île site to study in an integrated manner the impact of floating wind farms

Following the launch of two campaigns at sea in April and August 2018, a new campaign will take place from 8 to 20 May 2019 as part of the APPEAL collaborative R&D project, coordinated by France Energies Marines and scientifically managed by the University of Western Brittany. This campaign will continue, on the same site as last year, that of the future pilot farm of the Groix and Belle-Île Floating Wind Turbines, to collect data on the ecosystem: measurements of environmental parameters as well as the collection of plankton and benthic animals.

By combining this information from the field with numerical modelling work, the APPEAL project will make it possible to understand the potential effects of floating wind farms on the functioning of coastal ecosystems. Tools to support the integration of such infrastructures at sea may then be proposed.

### An integrated approach to the coastal ecosystem

In the complex and coveted environments of coastal marine ecosystems, there are many technical, legal, societal and environmental challenges. The APPEAL collaborative R&D project aims to build an integrated approach at the ecosystem level. The natural sciences are thus associated with the human and social sciences in order to take into account the human dimension through the analysis of activities such as fishing or maritime traffic. The goal? Measure the potential effects of floating wind farms on the functioning of coastal ecosystems as a whole and thus propose tools to assist in the integration of such infrastructures at sea.

### The need for campaign at sea

As part of the APPEAL project, two campaigns at sea have already taken place in 2018 on the site of the future pilot farm of the Eoliennes Flottantes de Groix et Belle-Île, a winning ADEME project developed by a consortium composed of EOLFI, CGN Europe Energy and La Caisse des Dépôts. Two new campaigns will be conducted in 2019: the first from May 8 to 20 and the second in the fall. The program includes measurements of environmental parameters (temperature, salinity, etc.) as well as the collection of plankton and benthic animals.

The objective? Identify changes in the ecosystem, comparing the results obtained after 2 years of campaigns (2018 and 2019) with those of the scientific work carried out in the 1950s. These campaigns will also be used to establish the initial environmental and ecological state before the implementation of floating wind farms. Various scenarios of the evolution of this ecosystem, after the installation of wind turbines, will then be tested using numerical modelling.

### Partners with complementary skills

The APPEAL project, which lasts 3 years, receives financial support from the State, managed by the Agence Nationale de la Recherche under the Investments for the Future Programme (ANR-10-IEED-0006-25), and from France Energies Marines. It is scientifically managed by the University of Western Brittany and coordinated by France Energies Marines. The project brings together 17 academic and private partners, as well as professionals from the sea such as the CDPMEM of Morbihan, who form a consortium with complementary skills and contributions, guaranteeing quality scientific work.

## Main information about the APPEAL project

**Subject:** Socio-ecosystem approach to understand the impacts of floating wind farms

**Duration:** 3 years (2018-2021)

**Financial support:** this project receives financial support from the 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:** University of Western Brittany

**Consortium partners:**



## France Energies Marines in short



**Identity:** Institute for Energy Transition dedicated to offshore renewable energies and supported by Investments for the Future Programme

**Activity:** Research, development, innovation and services in the field of ORE

**4 scientific and technical programmes:**

- Tools and methods for site characterization
- Technology design tools for MRE applications
- Environmental and socio-economic impacts
- Farm architecture and network integration

**Staff:** 35 collaborators (27 FTE)

**Annual budget:** €2.5 million

**Date of creation:** 15 March 2012

**Location:** Bâtiment Cap Océan - 525, avenue Alexis de Rochon - 29280 Plouzané - France

[france-energies-marines.org](http://france-energies-marines.org)

