



NORMANDY MARINE  
ENERGY ORGANIZATION

# NORMANDY

DRIVING FORCE OF MARINE ENERGY



RÉGION  
NORMANDIE

[www.normandie.fr](http://www.normandie.fr)

# NORMANDY, DRIVING FORCE OF MARINE ENERGY

With its 640 km of straight coastline exposed to strong, regular winds and running alongside the formidably strong current of the Raz Blanchard, Normandy has all the exceptional natural characteristics needed to develop Marine Renewable Energy projects (MRE).

The Region has set itself three objectives: organize and structure a MRE sector, promote Normandy as the perfect region for implementing MRE projects, and anticipate needs in all sectors (equipment, infrastructures, training, etc.). Its objective is to raise Normandy as well as its partners (economic development agencies, consular chambers, large networks of subcontractors and research centers, training organisations and employment agencies, ports and local public authorities) up to the position of reference region for MRE. The contributors in the region have already been working to create the infrastructures necessary for these projects:

the Cotentin-Maine very high voltage power line from RTE (national grid) which allows the transmission of more than 1GW of tidal power production, the ports of Cherbourg and Le Havre can welcome major industrial projects and the ports of Caen-Ouistreham, Fécamp and Dieppe are of a suitable size for maintenance work. Several projects are now being developed: a tidal energy pilot farm in the Raz Blanchard and three offshore windfarms in Dieppe-Le Tréport, Fécamp and Courseulles-sur-Mer. Two factories (tidal turbines and blades) are being built in Cherbourg, two others (nacelles and blades) are planned in Le Havre.

## PORT INFRASTRUCTURES IN CHERBOURG AND LE HAVRE

Accessible 24h/day and 7 days/week - no tidal restriction



100 M€  
of investment

125 ha  
available for industrial activities

1<sup>st</sup> quay in France  
for load capacity (15T/m<sup>2</sup>)

A blade manufacture factory (G.E. / LM Wind Power)  
A tidal turbine assembly plan (Naval Energies)  
An assembly hub for Courseulles  
and Fecamp windfarms



60 M€  
of investment

74 ha  
available for industrial activities

Exceptionally large area for container storage

Projects for blade and nacelle factories  
(Siemens)

Construction of gravity based foundations (EOHF)



## PORT DEDICATED TO OPERATING & MAINTENANCE (O&M) ACTIVITIES

The ports of Caen-Ouistreham, Dieppe and Fécamp will host their maintenance bases for offshore wind farms respectively in Courseulles-sur-Mer, Dieppe-Le Tréport and Fécamp. They will each employ a hundred persons during the operating time (25 years).



# ACTORS OF THE MRE SECTOR IN NORMANDY

## BUSINESS

Normandy Region, through its economic development agency (ADN), supports all businesses projects on the territory. With regards to marine energy projects, ADN coordinates regional stakeholders, provides european projects engineering, a large range of funding schemes as well as support for the search of partners and for the settlement of foreign companies and investors.

## SUBCONTRACTORS & INDUSTRY

- 900 signed up with the Chamber of commerce's MRE Business network
- 190 companies involved, in tenders or implementation processes of development strategies for MRE projects
- Norman stakeholders have developed a strong know-how thanks to the region's industrial past, particularly

in the steel, tooling, boilermaking, mechanics, logistics & maintenance industries & markets

## RESEARCH, DEVELOPEMENT & INNOVATION

36 Norman organisations, labs, center of expertise and research department for MRE's gather together 4 times a year to share their vision of MRE's, their work's progress and to define their research strategy within the group ONEM RDI (Normandy Organisation for Marine Energies - Research, Development and Innovation). They collectively elaborated 5 strategic pillars to foster their skills:

- Establishment of offshore wind farm and environmental impact
- Energy storage: Modelling and mock-up
- Maintenance and logistic
- MRE materials, corrosion and bio corrosion

- Human and social sciences, MRE assimilation

Thereby they offer a scientific support to MRE companies through illustrative projects to move forward Research, Development and Innovation:

Pile & Tide, Ofelia, Trophik, AIMS, Recif, Paeafac, Abiop, Hyd2m, Thymote, INWIT

A book of their skills is available through the following link [www.normandie.fr](http://www.normandie.fr)



## EMPLOYMENT & TRAINING

Creation and implementation of an Employment/Training action plan to anticipate the needs of various industries in the region.

## KEY FIGURES

**1st**  
Tidal energy potential available for projects deployment at commercial scale



**3** Offshore wind farms

**2** Pilot tidal farms under development



**5** PORTS : CHERBOURG, LE HAVRE, CAEN-OUISTREHAM, DIEPPE, FÉCAMP

200 ha of dedicated land,  
1 tidal turbines assembly factory,  
1 wind turbine blades factory



**36**  
Research, development and innovation centers



**190**  
Companies involved



Trainings suited to the need of the industry

