

## Offshore Wind Carbon-neutral solution



### An integrated and innovative approach to offshore wind engineering

Tapping the vast potential of offshore wind is a key enabler for a carbon-neutral future for almost all regions worldwide.

Building on our proven expertise on some landmark European offshore wind energy projects, Tractebel is tackling now global offshore wind projects increasing massively offshore wind capacity, introduction of floating offshore wind farms, hybridization with floating offshore photovoltaic and offshore production of hydrogen.

With the trusted expertise of



#### Our approach

- We establish project teams with multi-disciplinary experience in project development, assessment, construction and operation.
- We address and adapt engineering solutions for each project aspect: wind assessment, marine engineering, foundation and structure design, turbine selection, offshore substations and electrical connection.
- We support you as Owner's Engineer, Lender's Engineer, Consultant Engineer or Contractor services with local experts backed by senior international experts.

#### Client benefits

- Applying decades of experience in sound design processes, allows for more timely approval processes and guarantees the necessary quality needed to keep your offshore wind project on time and on budget.
- Largely thanks to innovative thinking and the high-quality level of our work, we're able to make feasible even your most challenging of offshore wind project.

#### Our added value

- Complete and independent technical expertise allowing for overall customized optimizations and cost competitive solutions.
- State-of-the-art software and innovation to meet your project goals.
- Flexible and "thinking along" attitude in order to find your "winning solution".
- Vast network in offshore wind sector leading to strong market intelligence, updated on latest state of the art.

# Mastering the entire value chain and mitigating risks to make your offshore wind project a success

## Expertise

- Procurement
- Contract Management
- Project Management
- Health and Safety Environment
- Wind Turbine
- High Voltage
- Foundation Structure
- Transport & Installation
- Port Infrastructure
- Naval Architecture
- Operation, Maintenance & Repair Concepts
- Hydrogen production
- Grid integration



## SOME REFERENCES OFFSHORE WIND

### Windparks

#### **Belgium - Rentel, Seamade and Northwind**

Consultant engineer for the end-of-warranty analysis of different offshore wind farms of the Belgian coast

#### **Vietnam - Soc Trang and Bac Lieu**

Owner's Engineer for the realization of 30MW and 141MW near shore wind farm

#### **Taiwan - TPC Changua Phase II**

Technical Engineer for the development of 300MW offshore windfarm

#### **The Netherlands - Hollandse Kust West**

Wind Resource Assessment

### HV and cables

#### **Germany - Merkur**

EPC for HV/MV equipment of 396MW OHVS (Offshore Substation) including detailed design of grid connection

#### **Germany - Sylwin Alpha**

Design Engineer for 864MW offshore HVDC Converter (world's largest and heaviest at that time)

#### **France - Dunkerque**

Design Engineer for 600MW offshore AC Converter Platform

#### **Belgium - Princess Elisabeth**

Consultant Engineer for Subsea Cables

#### **Germany - Baltic Eagle**

Consultant Engineer for Modular Offshore Grid for new concession zone

### Innovation

#### **Portugal - Windfloat Atlantic**

Technical assistance for development and construction of 24MW offshore floating wind park

#### **Belgium - MPVAQUA**

R&D - Idea owner and program manager for offshore floating PV life testing from 2022

#### **United Kingdom - ERM Dolphyn**

Technical consultant for development of 4GW offshore floating hydrogen wind park

#### **Germany - Offshore Hydrogen**

R&D - Idea owner for fixed offshore hydrogen platform with capacity from 100MW to 1GW