

PROJECT

FLAGSHIP

Floating Offshore Wind Optimization for Commercialization

The main aim of FLAGSHIP project is to validate and demonstrate a cost-effective 10MW Floating Offshore Wind Turbine (FOWT) to ensure imminent LCOE reduction in the range 40-60€/MWh in 2030.



This project has received funding from the European Union's Horizon 2020 Research And Innovation programme under Grant Agreement N° 952979

12

PARTNERS

5

COUNTRIES

€25 M

TOTAL BUDGET

4

YEARS



FLAGSHIP

01

Challenge

Floating Offshore Wind energy (FOW) holds the key to an inexhaustible resource potential in Europe with the aim to reduce the Levelized Cost Of Energy for deep waters (>60m). Industry expects the costs to reach €100- 80/MWh for the first commercial scale projects using existing proven technologies and reaching final investment decision (FID) between 2023 and 2025. During that period, according to the latest estimations of WindEurope, FOW would pass 1GW of cumulative installed capacity in Europe and projects financed at that point could be online within 3 years. Costs are expected to decrease even faster at "mature" commercial scale, reaching €40-60 /MWh by 2030 given the right visibility in terms of volumes and industrialization.

02

Solution

The FLAGSHIP project will develop the first demonstration of a 10MW floating wind turbine to ensure the reduction of the LCOE in the range of 40-60 euros/MWh. This will be demonstrated on a 1:1 scale in the Norwegian North Sea. It is a robust and innovative semi-submersible concrete floating platform that includes an easy-to-install anchorage design, innovative mooring designs and mooring configurations, as well as new cable designs with optimised installation and life management procedures.

03

Impacts

This project expects to decrease the Levelized cost of Energy (LCOE) and environmental impacts while increasing market value of floating wind power. LCOE measures lifetime costs divided by energy production, aiming to calculate the present value of the total cost of building and operating a power plant over an assumed lifetime.

IN ONE CLICK

Coordinator

Iberdrola

Programme

Horizon2020

Period

2020-2024

Sector

ENERGY

Web

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