



Marine energy and mining resources

EFFICACE

PRE-CONSTRUCTION ENGINEERING FOR A FLOATING WIND TURBINE

The EFFICACE project follows on from Eolink's successful production of a prototype 1/10th scale floating 12 MW wind turbine, which was connected to the grid, equipped with instruments and tested at sea in 2018 and 2019.

The current project aims to speed up the commercial rollout of the EOLINK 12 MW floating wind turbine.

It will establish all the necessary pre-construction engineering for a 3/4 scale, 5 MW demonstrator.

This innovation is based on the ability to increase the unit power of wind turbines by replacing a single tower, which can suffer from vibration and bending moment, with a supporting pyramid. Traditional turbine designs face technological obstacles associated with resonance from vibrations and with interaction between the blades and the tower.

EOLINK's tests appear to demonstrate that mounting a 12 MW turbine on a 66 m-long floater is feasible, thus allowing the structure's weight and cost to be significantly reduced. Furthermore, this concept allows for longer blades because the conventional design constraint of proximity to the vertical tower no longer applies.

These competitive advantages will bring generation costs in at around €50-70/MWh in 2025 and €35-40/MWh in 2030.

Partner

COM_PROJECTS_CATEGORIE_PARTNER_ENTREPRISES

Eolink, Plouzané [[Project Developer](#)]

Funder

Ademe

Labelisation

28/06/2019

Overall budget

986 K€