



Cost reduction of floating wind technology



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The COREWIND project aims at strengthening European leadership in floating offshore wind energy. It provides recommendations on best design practices and open data models to accelerate the development of concrete-based semi-submersible and spar floating structures. This will allow enhanced performance and significant cost reductions.

Objectives

- Innovative design and optimisation of foundation, moorings and dynamic cables;
- Optimisation of installation, operation and maintenance strategies;
- Experimental testing;
- Cost reduction and wind farm layout optimisation;
- Standardisation, commercialisation and exploitation.

Key Achievements

- The first modelling and optimisation of a full floating offshore wind system which demonstrates a LCOE cost-reduction and LCA ranges of 10-20% (depending on the scenario evaluated).
- Demonstration of how different design and operation parameters can contribute to the LCOE reduction.
- LCA of the environmental footprint of floating offshore wind.
- Development of open online tools (e.g. Building Information Modelling, BIM) for the design of floating offshore wind system.
- Recommendations on standardisation of components for floating offshore wind.

LCOE – Levelised cost of energy
LCA – Life cycle assessment



Floating offshore wind design using the online BIM platform developed by the COREWIND project.

Accessible at: <https://ramview360.xyz/Corewind/>
Username: Corewind_RamView360, Password: Corewind_2020%RAM\$



Picture of the spar prototype tested in Environmental Hydraulics Institute of Cantabria's basin. Source: IHCantabria.

Project coordinator



Project partners



corewind.eu

Some key deliverables and models of the COREWIND project are available on its website and Zenodo Community.

