

3D Motion Compensation for Installation and Maintenance of large offshore wind turbine generators

Publieke samenvatting / Public summary

Following from the installation of dozens of offshore wind farms in the last two decades, the sector of offshore wind operations and maintenance (O&M) is now a rapidly developing market.

With the current state of the art in offshore ships and heavy lifting, wind turbine maintenance is only possible with jack-up vessels (fixed while lifting), usually designed to handle much heavier installations and with several limitations. Meanwhile, rapid innovations in the technology of turbine power and heights, rotor blades, fixed and floating foundations are leading to plans for offshore parks increasingly further offshore – with higher wind speeds, sea states and in deeper waters.

OWL and Huisman aim to develop a new maintenance concept for this challenge.

Objective

The overall goal of this project is the development of a worldwide unique combination of a special purpose ship, combined with a 3D motion compensated lift system, and providing a solution for offshore wind turbine installation, maintenance and in due time decommissioning. The delays due to weather conditions are an important cost factor for installation and (unexpected) maintenance.

Short description

The technological scope of work in this project for the envisioned system solution development

Projectinformatie / Project information

Projectnummer / Project number
TEWZ117014

Subsidiebedrag / Grant amount
€ 326.050,00

Algemene informatie / General information

Penvoerder / Secretariat
Offshore Wind Logistics B.V.

Publicaties en materialen / Publications and attachments

- 04.06.2020

3D Motion Compensation for Installation and Maintenance of large offshore wind turbine generators (Presentation Matchmaking Day 2020)

- 06.09.2021

Eindrapport TEWZ117014

Volg Topsector Energie op X / Follow Topsector Energie on X

@TSEnergie

involves the development of a motion compensated model of crane and ship, prototyping, computer model and Marin scale tests, an enhanced total engineering model of both.

De data in deze applicatie is afkomstig van de Rijksdienst voor Ondernemend Nederland (RVO) en wordt in samenwerking met de Topsector Energie ontsloten.

Voor meer informatie over de Topsector Energie, ga naar www.topsectorenergie.nl.

Voor meer informatie over de TSE / Energie-Innovatie regelingen die RVO aanbiedt, ga naar www.rvo.nl/tse.