

Delft Offshore Turbine Onshore Tests - Phase 2

Publieke samenvatting / Public summary

Background

Offshore wind has developed incrementally from onshore turbines being enlarged for offshore use. This has resulted in heavy turbines, with large generators needing heavy structures to be erected offshore at significant cost. Since 2008 the Delft Offshore Turbine concept has been tackling this challenge via a holistic design approach.

Objective

To reduce the high €/kWh of current wind turbine concepts the Delft Offshore Turbine concept considers a radically new way of transforming wind into electricity within an Offshore Wind farm. Instead of pumping electrons, water is being pumped by individual wind turbines towards a centralized generator system.

Short description of activities

Before going to full scale we want to proof and test the DOT system at medium scale (500kW). For this reason a 2nd hand windturbine (Vestas V44) will be outfitted with the DOT Power Transmission System and made ready for use. Outfitting and testing of the DOT PTS is done in Phase 1 of the project. The next step in proofing the DOT working principles is to test the wind turbine in real life conditions. Although the system is designed for offshore locations the choice is made to start the wind turbine test onshore to keep costs down and make sure all checks are done before going offshore.

Projectinformatie / Project information

Projectnummer / Project number
TEWZ115019

Subsidiebedrag / Grant amount
€ 800.041,00

Algemene informatie / General information

Penvoerder / Secretariat
Delft Offshore Turbine B.V.

Publicaties en materialen / Publications and attachments

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Eindrapport TEWZ115019

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