Concept and Basic Design for Self-installing Gravity Base Foundation

Publieke samenvatting / Public summary

Background

Most offshore wind parks use monopiles foundations, involving expensive Lift Vessels, complicated logistics, significant noise problems and technical and economical limitations regarding turbine size. The Monobase Wind Foundation (MWF) offers an alternative which resolves the disadvantages of the monopile and is specifically designed for offshore installation and large turbines.

Objective

The objective is to perform a general Basic Design of the Monobase Wind Foundation for North Sea fields including the Dutch plans based on the announced turbines of 8-10 MW capacity. By increasing the capacity per unit a contribution to the cost reduction goals of 16% in 2023 can be materialised.

Short description of activities

The project will be executed by a group of experienced, Dutch, staff and engineers. All persons involved have an extensive background in offshore construction and installation in both the Oil & Gas and the Wind industry. The team will further develop the present Monobase design and optimize construction efficiency, economic lifespan/ field life, fabrication method leading to an optimised design for the North Sea conditions using a significant large turbine than nowadays used. The idea behind the Monobase Wind is to reduce the costs by scaling up. This will lead to less units required to produce the

Projectinformatie / Project information

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Algemene informatie / General information

Penvoerder / Secretariat
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Publicaties en materialen / Publications and attachments

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same total power which will contribute to reduced costs regarding fabrication, offshore installation and maintenance. The transport and installation challenges of the Monobase Wind have been tested successfully during model tests in November 2014 at the MARIN Institute in Wageningen, The Netherlands

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