

Field testing to progress the assessment and mitigation of standstill vibrations

Publieke samenvatting / Public summary

Doelstelling

The goal of ESSENTIAL is to better understand the phenomenon of standstill vibrations, as an intermediate step towards confidently modelling these. This is done by performing field measurements at standstill during storm conditions on a fully instrumented MW wind turbine, resulting in a database that can be used to progress aero-elastic modeling of modern, large wind turbines.

Korte omschrijving

An investigation is carried to explore to what extent recent model developments can contribute. The findings will be shared in a publication, highlighting the outcome and analysis of the field measurements. Furthermore, a workshop will be organized to disseminate the results.

Resultaat

The result of this project can be considered a building block towards consolidating an efficient but accurate simulation approach to model standstill conditions for large flexible wind turbines. With this in sight, improved design and mitigation of the vibrations can be explored, resulting in lower risks and less downtime offshore.

Projectinformatie / Project information

Projectnummer / Project number
TKITOETKI_WOZ_2511_TNO_ESSENTIAL
Subsidiebedrag / Grant amount
€ 100.000,00

Algemene informatie / General information

Penvoerder / Secretariat
TNO

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