



Grønn frokost: Får Norge omsider demopark for havvind?

Verdien av en demopark for næringslivet

Lars Henrik Hosøy - Business Development Manager

Agenda

- Introduction to Offshore Wind in Aibel
- Norwegian floating wind demo park from the supply chain's perspective

About Aibel

- Aibel AS is a leading supplier of services related to oil, gas and renewable energy
- Around 4,000 employees
- Offices in Norway, Denmark, Singapore and Thailand
- Yards in Norway and Thailand
- Long term maintenance and modifications contracts
- Deliver new platforms and modules
- Successfully entered into offshore wind market



Offshore Wind



HVDC Solutions

- EPC contracts for HVDC platforms
- Own concept

AC Substations

- EPC contracts for AC substations
- Own concept
- FEED/Studies

Floating Wind

- FEED/studies
- EPMa contracts
- Construction

Installation and O&M

- O&M contracts for Offshore Wind

“floating”

DoWin Beta – our first wind platform

- Contract awarded in August 2011 to design and build DoWin beta (ABB)
- Convert alternating current (AC) from wind farms to direct current (DC) – 924 MW, 320kV
- Receive electricity from more than 200 offshore wind turbines
- Size of a football pitch. Accommodation for 24 people
- Construction of the platform in Dubai
- Sail away from Dubai to Haugesund June 2014
- Sail away from Haugesund August 2015
- Installed in the DoWin wind cluster in the German North Sea



Hywind Scotland Pilot Park

- In 2014 Aibel was awarded the contract for FEED and EMA (Engineering and Management Assistance)
- EMA has since been expanded to include the design of turbin towers and responsibility of system integration and procurement of equipment
- Aibel has also been awarded a contract for installation assistance at Stord Base and in Scotland
- Work was conducted from Aibel's offices in Haugesund and Oslo
- Production started October 2017
- O&G industry now show interest for such floaters



Photo: Øyvind Gravås/Woldcam/Statoil

From Oil & Gas to Renewables

Oil & Gas

- Experience with large, complex, offshore projects
- Large and experienced EPC provider
- Marine experience
- Design and construction of offshore (floating) structures
- The importance of logistics
- Understand the need for study/FEED and a well planned T&I
- High quality deliverables
- Well developed HSE Culture



International business opportunities for Norwegian suppliers

- Floating wind at the starting line
- Emerging market outside of Europe
- Opportunity of standardization and mass-production thinking

Offshore wind

- Competition with local European companies with specific offshore wind experience
- Overall O&G or maritime experience alone is often not enough
- Requirements of specific offshore wind experience

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energy to perform