HYWIND TAMPEN – Floating Offshore Wind Park (FOW)

OPERATOR: EQUINOR

Hywind Tampen is an 88 MW floating wind power project will provide electricity for the Snorre and Gullfaks offshore field operations in the Norwegian North Sea. It will be the world's first floating wind farm to power offshore oil and gas platforms.

11 wind turbines based on one of Equinor's floating offshore wind technologies, Hywind. The wind farm will have a combined capacity of 88 MW and is estimated to meet about 35% of the annual electricity power demand of the five Snorre A and B, and Gullfaks A, B and C platforms. In periods of higher wind speed this percentage will be significantly higher. Info: <u>Hywind Tampen (equinor.com)</u>



Illustration: Equinor, Hywind Tampen layout



Pict.: SEMAR and DOF Subsea Installation of suction anchors at Hywind Tampen Q2-Q4-2022



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SEMAR AS REFERENCE: HYWIND TAMPEN

Semar Project Manager:

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Project period:

May-20 to August 2022

SEMAR AS Project responsibility:

Semar is working as a subcontractor to the main contractors; Kværner and DOF Subsea. Supporting both parties with planning of the offshore marine operations on Hywind Tampen, and delivery of leading personnel for participation during the offshore execution phase.

Project description-SOW:

SEMAR Scope of work is to support the main contractors Kværner and DOF Subsea with engineering work mainly for the three parts listed:

- Planning of the Mobilization Base activities for the offshore installation campaigns.
- Planning Mooring Pre-Installation.
- Planning of Tow and Hook-up of the Floating wind turbines.

SEMAR will participate with leading personnel for the execution phase of all planned activities listed.

The Base Operations consists of following work:

- Develop mobilization base operation procedure, presenting work related to the mobilization base activities. This procedure will coordinate the work ongoing on the mobilization base during the offshore installation campaigns.
- Participate with leading personnel on the mobilization base during operations.

The Mooring Pre-Installation consists of following main work packages:

- Develop an offshore installation procedure for installing 19 x suction anchors and mooring chains.
- Perform hydrodynamic analysis for the suction anchor installation.
- Develop and design a cost-effective sea fastening arrangement for the 19 x suction anchors. Produce fabrication drawings and perform fabrication follow-up at site.
- Produce storyboards and rigging arrangement drawings.
- Participate with Lead Engineers and Project Engineers during the offshore installation campaign.
- Participate with Structural Engineers onboard the installation vessel during mobilization.

The Tow and Hook-up consists of following work:

- Develop row and station keeping procedure for the floating wind turbines.
- Develop hook-up operational procedure. Presenting the method for hook-up of the floating wind turbines to the pre-installed mooring lines.
- Perform hydrodynamic analysis for the tow and station keeping of the floating wind turbines.
- Perform hydrodynamic analysis for the hook-up of the floating wind turbines to the preinstalled mooring lines.
- Produce sea fastenings, storyboards and rigging arrangement drawings.
- Participate with Offshore Managers, Tow Masters, Lead Engineers and Project Engineers onboard the vessels during operations.

Ongoing 8-10 000 man-hours

