



Baltic Eagle

Wind Farm Project

deugro Spain, in close cooperation with dteq and

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deugro Netherlands, shipped eight 77-meter-long pin piles weighing over 270 metric tons each from Spain to the Netherlands for the Baltic Eagle offshore wind farm.

The Project

deugro, in collaboration with dteq Transport Engineering Solutions, a company of the deugro group, successfully delivered eight pin piles from Bilbao to Vlissingen as part of the Baltic Eagle Project, an offshore wind farm. The 77-meter-long pin piles weighed over 270 metric tons each and had a diameter of 2.4 meters. These pin piles are the largest piles ever manufactured by Haizea Bilbao.



the carrier defined specific spots on each pontoon—the complex measurement on board was one of the biggest challenges.

Another hurdle of the project was the operations at the destination. Due to the ongoing works at the receiving terminal, the hatch covers of the vessel had to be unloaded onto a pontoon moored next to the vessel instead of quay side as was initially planned. This was all arranged within short notice and with no incidents.

deugro compiled a complex coordination of operations with shore cranes, local agents and the vessel. Additionally, dteq contributed to the project with custom-designed transport saddles and finite element 3D analysis of the cargo prior to operations.

“The greatest challenge of this shipment was maintaining a relentless coordination of all operations and involved subcontractors to achieve the excellence that defines deugro all around the world,” said Carlos Contreras, Junior Project Coordinator, deugro Spain.

Due to limited crane capacity at the required outreach, two rotations of the vessel needed to be executed. The first pile was loaded on starboard side, then the vessel was rotated to be loaded at the port side. Because the vessel was relatively small for the cargo, the planning and engineering was even more defiant. The necessary stacking of the piles on board required intensive planning due to the weight. The sea-fastening of the cargo had to be planned meticulously to balance the weight; wood was installed to spread loads. For the high loads on the tween deck, dteq together with

The final delivery and installation of the wind turbines will complete the construction phase and are scheduled for the first quarter of 2024. As soon as the 476 MW Baltic Eagle offshore wind farm is connected to the German power grid, carbon emissions of around one million metric tons per year can subsequently be avoided.

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Project highlights

- 77 m, 270 MT pin piles, the largest ever manufactured by Haizea Bilbao
- Technical solution enabled 20% savings compared to traditional heavy lift vessels
- Complex loading operations with shore cranes
- Intensive planning for stacking piles on board due to weight
- Custom-designed transport saddles and FE 3D analysis prior to execution