

Green light for autonomous pilot at Deutsche Bucht wind farm





Pioneering global offshore wind farm owner Northland Power has selected Subsea Europe Services as its partner for a groundbreaking pilot project in summer 2023 at the Deutsche Bucht Offshore Wind Farm that will place autonomous marine survey and underwater inspection at the heart of its operations & maintenance (O&M) programmes.

The green light for the project that starts

this July follows the successful harbour testing of Subsea Europe Services' *Autonomous Surveyor* uncrewed surface vessel (USV) and *A.IKANBILIS* hovering autonomous underwater vehicle (HAUV), which took place in May on the Albert Betz service operation vessel (SOV) in Eemshaven, the Netherlands.

Northland Power will task Subsea Europe Services' *Autonomous Surveyor* and *A.IKANBILIS* to deliver the complete offshore wind foundation survey and inspection scope. While the *Autonomous Surveyor* will conduct multibeam echosounder surveys to monitor the inter-array cable routes and potential scouring at the foundations, the *A.IKANBILIS* will conduct general visual inspections of the foundations, from water level all the way down to the seabed. All survey and inspection work will be carried out with minimal human involvement.

Automated project workflow

Uniquely, both autonomous platforms will remain resident at the wind farm for the duration of the pilot project, using the SOV for the safe and efficient launch, recovery and storage of the *Autonomous Surveyor* and *A.IKANBILIS*. The SOV will become the mothership and centre of operations for autonomous survey and underwater inspection operations within a highly automated project workflow: from planning and execution to reporting and data delivery. This approach significantly reduces the number of personnel and vessels required offshore, making the wind farm a safer, greener and even more efficient workplace.

"New technologies including autonomous platforms are integral to optimizing our O&M strategies," said Jan Schmökel, balance of plant engineer, Northland Power. "We're impressed with the Subsea Europe Services autonomous vessel fleet and their expert team so far, and as a company dedicated to innovation in pursuit of safe and efficient marine operations, and we can't wait to see the difference they make at Deutsche Bucht during the forthcoming pilot project."

"This project is a fantastic opportunity to demonstrate the power of true autonomy when applied to both surface and underwater tasks at an operating wind farm," said Sören Themann, CEO, <u>Subsea Europe Services</u>. "Our approach makes it possible to significantly reduce the number of personnel and vessels required on-site, which unlocks HSE, environmental and economic benefits while optimizing workflows for faster acquisition of higher quality data using fewer resources."

Northland Power is 100% owner of Deutsche Bucht offshore wind farm, which is located 95km west of Borkum in the German Exclusive Economic Zone (EEZ). Deutsche Bucht has an operating capacity of 252MW, meeting the annual energy needs of 300,000 people and reducing the annual CO_2 emissions of Germany by 700,000 tons.



The Autonomous Surveyor and A.IKANBILIS ready for action during trials. (Image courtesy: Subsea Europe Services)

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