DEME Launches Second WTIV "Norse Energi" – Major Construction Milestone Achieved

DEME has marked a significant achievement with the launch of its second Wind Turbine Installation Vessel (WTIV), Norse Energi, at the Yantai CIMC Raffles shipyard. This event brings the vessel into its final construction phase, reinforcing DEME's investment in next-generation offshore wind infrastructure.

Designed by GustoMSC, Norse Energi shares its specifications with sister vessel Norse Wind, both tailored to install turbines with rotor diameters over 300 meters and monopiles weighing up to 3,000 tonnes. The vessels are equipped for operations in water depths up to 70 meters, making them among the most advanced WTIVs in the sector.

The launch ceremony reflected the strong collaboration between CIMC Raffles and DEME, highlighting their mutual commitment to safety, quality, and innovation. Construction of Norse Energi began in January, and the project has progressed on schedule.

Norse Wind is expected to be delivered in Q4 2025, with Norse Energi following in early 2026. Both vessels will be finished in DEME's recognizable green livery, signaling their role in driving the energy transition through offshore wind deployment.

SOLVE WIND

Arrival of ATOMS Components Marks Key Progress for Offshore Maintenance Innovation

A milestone has been reached in the development of the ATOMS platform, with several key components now delivered to port. This advancement brings the project closer to realizing a more efficient approach to offshore wind turbine maintenance.

Developed by Spanish engineering firm ESTEYCO, the ATOMS platform (Advanced Technology for Offshore Maintenance Systems) is a core part of the SOLVE WIND initiative. Designed to offer a safer and more cost-effective alternative to traditional offshore methods, it supports major maintenance tasks without relying on jack-up vessels.

The semi-submersible barge is engineered to perform corrective work directly at sea. Working alongside Liftra's up-tower crane technology, it enables repairs at height, including for new-generation turbines, and is compatible with both fixed and floating offshore wind installations.

Core Operational Features:

- **Tug-Friendly Deployment:** Easily mobilized using standard tugboats, streamlining transport and reducing costs.
- **Dynamic Coupling:** Uses an advanced winch system to approach and connect with turbine foundations securely, even in rough sea conditions.
- **Precision Ballasting:** Keeps the barge stable and synchronized during lifting operations.
- **Rapid Turnaround:** Allows for swift demobilization after maintenance is complete.
- **Multi-Turbine Compatibility:** Adaptable to various turbine types, ideal for servicing mixed-fleet wind farms.

As turbine sizes continue to increase, traditional offshore maintenance solutions are proving costly and less adaptable. ATOMS presents a forward-looking alternative—scalable, flexible, and built to reduce long-term operations and maintenance costs.

The arrival of its first components signifies a critical transition from concept to field-readiness. As deployment nears, the offshore wind sector watches closely as this innovation sets the stage for new maintenance strategies

Mammoet Completes Load-Out of Jacket Foundation for Thor Offshore Wind Project

A major milestone has been achieved in the development of Denmark's largest offshore wind farm. Heavy-lift specialist Mammoet has successfully completed the load-out of a massive jacket foundation that will support the substation for the Thor Offshore Wind Farm.

Commissioned by HSM Offshore Energy BV, the steel jacket weighs approximately 2,500 tonnes and measures 53 meters in length, 40 meters in width, and 40 meters in height. The complex transport operation involved moving the structure from its fabrication site to a barge using 108 axle lines of self-propelled modular transporters (SPMTs). Throughout the process, the barge was carefully ballasted in real-time to ensure balance and stability.

Supporting One of Denmark's Largest Renewable Energy Projects

The Thor Offshore Wind Farm, scheduled for completion in 2027, will have an installed capacity exceeding 1 gigawatt (GW). Once operational, it is expected to generate enough clean electricity to power over one million Danish homes. The jacket will form the structural base for a high-voltage offshore substation, which will collect and transmit wind-generated electricity back to shore.

Engineering Excellence in Action

The success of this load-out operation showcases Mammoet's precision engineering and transport expertise in the offshore energy sector. Coordinating closely with HSM Offshore and the barge operator, Mammoet ensured the structure's stability using dynamic ballast adjustments—an essential step when handling oversized, high-center-of-gravity components.

This achievement reinforces Mammoet's critical role in delivering infrastructure that supports Europe's renewable energy goals, particularly as offshore wind projects continue to scale in size and complexity.

Scaldis SMC Installs Jacket and Topside for Thor Offshore Wind Farm

Scaldis SMC has completed the successful transport and installation of the jacket foundation and topside structure for the Thor Offshore Wind Farm, one of Denmark's largest renewable energy developments.

Located in the Danish North Sea, off the west coast of Jutland, the Thor project will deliver more than 1 GW of green electricity once operational in 2027. The substation, now securely installed, will play a central role in transmitting power from offshore turbines to the onshore grid—providing electricity for over one million households.

Heavy-Lift Expertise in Action

Operating under challenging sea-state conditions, Scaldis deployed one of its specialized heavy-lift vessels to execute the complex installation with precision. The team successfully positioned the massive jacket structure on the seabed before lifting and aligning the topside onto the foundation.

This installation required careful marine coordination and engineering accuracy, both hallmarks of Scaldis' offshore capabilities.

Contributing to Europe's Energy Transition

The Thor substation installation reinforces Scaldis SMC's position as a key player in large-scale offshore wind construction. By enabling efficient and safe installation of critical infrastructure, the company continues to support Europe's shift toward sustainable energy.

This accomplishment adds another important chapter to Scaldis' portfolio of renewable energy projects, demonstrating its commitment to delivering high-quality solutions in complex offshore environments.

Aegir Completes Final Jacket Foundation at Ørsted's Greater Changhua Offshore Wind Farms

The final suction bucket jacket foundation has been successfully installed at Ørsted's Greater Changhua 2b & 4 offshore wind sites, completing a major phase in Taiwan's growing offshore wind expansion. The milestone wraps up a concentrated three-month installation campaign led by Heerema's heavy lift vessel, Aegir.

Over the course of the project, Aegir installed 66 jacket foundations—each critical to supporting turbines that will generate a total capacity of 920 MW of clean electricity. Once operational, the wind farms are expected to supply renewable energy to nearly one million homes across Taiwan.

Offshore Precision in a Coordinated Effort

The operation resembled an offshore production line, with multiple vessels working in close coordination to deliver scour protection, install the foundations, and manage turbine components in a seamless sequence. Aegir played a central role, executing each lift and placement with high precision. Engineers involved described the process as a finely tuned marine choreography, where every vessel had a defined role and every maneuver contributed to maintaining schedule and safety.

Advancing Wind Energy in Asia-Pacific

This achievement highlights the growing momentum in the Asia-Pacific offshore wind sector, with Taiwan emerging as a key market. The use of suction bucket jackets—known for faster installation and lower noise emissions compared to traditional piling—demonstrates a strategic move toward more sustainable and efficient foundation solutions, particularly in soft seabed regions.

With the foundation phase now complete, Ørsted continues its progress toward delivering a major boost to Taiwan's energy transition, underlining the potential of large-scale offshore wind in the region.

EIFFAGE
SMULDERS

Final Cable Deck Installed on Jasmund OSS Jacket at Smulders Yard

A significant construction milestone has been reached in the development of 50Hertz Transmission GmbH's offshore substation (OSS) for the Jasmund project, as the final cable deck has now been installed at the Smulders fabrication yard in Vlissingen, Netherlands.

Weighing approximately 4,500 tonnes and measuring 72 meters in length, the newly added cable deck is the final and largest structural element, completing the geometry of the jacket foundation for the substation. This step marks the transition from structural assembly to load-out preparation.

Engineered for Germany's Baltic Sea Grid Expansion

The Jasmund OSS will serve as a central collection and transmission hub in the German Baltic Sea, gathering power from multiple offshore wind farms and delivering it to the onshore grid. The structure was engineered by Iv and fabricated by HSM Offshore Energy BV, reflecting high-precision design tailored for offshore reliability.

Next Phase: Load-Out and Offshore Deployment

With the jacket structure now finalized, preparations are underway for the upcoming load-out later this year. Once deployed, the substation will support Germany's energy transition by integrating large-scale offshore wind production into the national transmission network.

This milestone further demonstrates the collaborative execution and engineering discipline behind one of Germany's key renewable infrastructure projects.

Wave Tank Tests Validate BRIZO's Strength for Floating Solar Applications

Earlier in 2025, the BRIZO development team achieved a major milestone in advancing floating solar technology by completing a successful two-week model testing campaign. The trials aimed to assess the platform's performance under challenging marine conditions, simulating real-world wave environments.

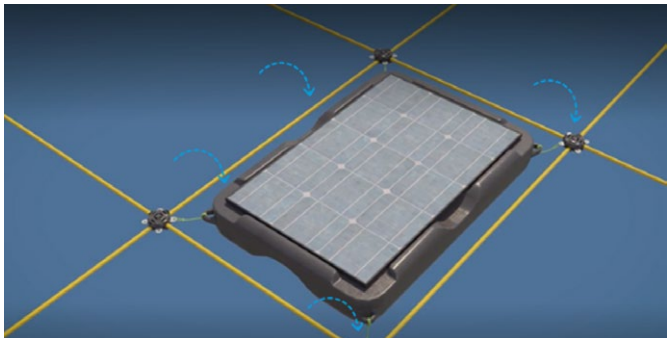
The tests were conducted at a 1:10 scale and recreated wave heights of up to 3.5 meters, equivalent to full-scale maximum waves of around 7 meters—conditions typical of demanding nearshore settings where floating structures must endure high energy loads.

Testing Setups and Configurations

To evaluate how structural loads vary by layout and capacity, engineers tested three platform configurations:

- **1 MW Base Configuration:** 2 × 52 floating panel units
- **3 MW Configuration:** 2 × 104 floating panel units
- **1 MW Extended Layout:** 6 × 52 floating panel units

These setups allowed the team to examine the effects of scale and arrangement on hydrodynamic behavior and structural resilience.



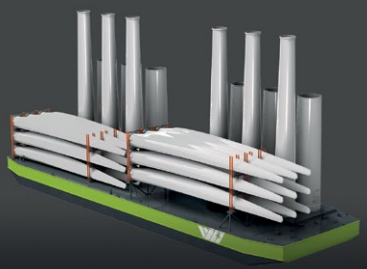
Confirmed Suitability for Coastal Deployment

The results confirmed that BRIZO's structural components are correctly dimensioned and capable of withstanding substantial wave forces. All configurations remained stable and intact throughout testing, proving the platform's mechanical durability and suitability for nearshore deployment.

With this positive outcome, BRIZO is now poised to enter the next phase—pilot-scale deployment and eventual commercialization. Its robust design opens new opportunities for renewable energy generation in coastal and island regions, where reliable floating solar installations are increasingly in demand.

GRS OFFSHORE RENEWABLES

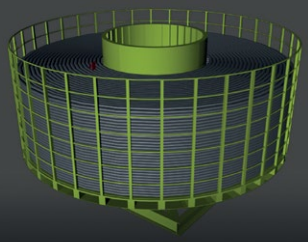
OFFSHORE EQUIPMENT



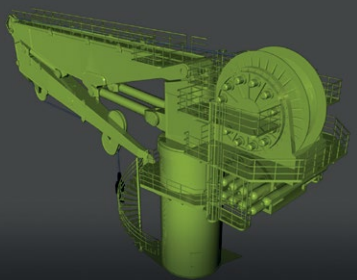
BARGE / PONTOON

ACCOMMODATION MODULE

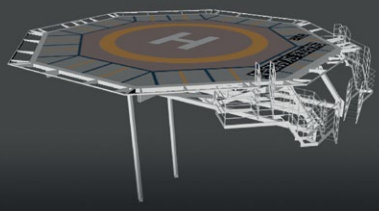
TRANSFER SYSTEM / GANGWAY



CABLE CAROUSEL / TURNTABLE



CRANE

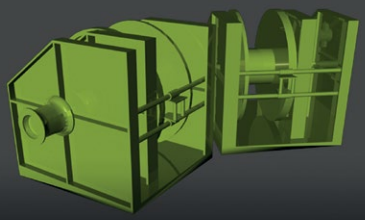


HELICOPTER DECK

OFFSHORE CONTAINER

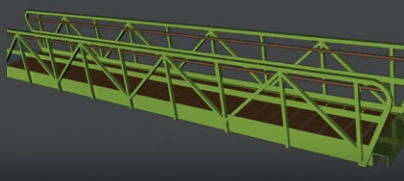
CABLE INSTALLATION EQUIPMENT

REMOTE OPERATING VEHICLE (ROV)



MOORING SYSTEM / WINCH

A-FRAME



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– STADTHAUSBRUECKE 7 – 20355
HAMBURG

MANAGING DIRECTOR:
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