



A new era for offshore wind farm operations

Two advanced vessels, MHO Balder and MHO Borea's are facing their biggest challenge yet. They are setting sail for the Sofia Offshore Wind Farm in the North Sea, marking the longest distance they have operated from the coast and their first winter mission in harsh weather conditions. Located approximately 195 kilometres from the UK's northeast coast, these vessels will play a crucial role in maintaining one of the world's largest offshore wind farms. The milestone underscores a strong commitment to the green transition and the capability to operate safely and efficiently in extreme environments.



minimizing downtime and maintaining a stable power supply from the park year-round.

Sofia is Europe's significant offshore futuristic wind farm and will provide a large portion of clean electricity, previously generated by fossil fuels. The park is part of the UK's essential strategy to meet climate goals while creating a sustainable energy supply for future generations.

A milestone for offshore operations

Operating so far from the coast and through winter's challenges requires not only extensive planning but also a special degree of preparation and adaptation. The wind farm presents new and complex demands for logistics, operations, and maintenance. This requires vessels and crews that can withstand the harsh conditions of the North Sea, where wind, ice, and powerful waves put everything to the test.

The mission is a true milestone because, for the first time, both vessels will be tested under the most challenging conditions, far from shore. The vessels will need to operate effectively in a demanding environment where access to land-based facilities is limited, and they must be able to support wind turbine operators in harsh weather conditions. The vessels must ensure security for service technicians while delivering reliable performance over extended periods during tough waters in the North Sea.

The crew's preparation has been extensive, and everyone has undergone specialized training to handle the unique challenges of long-distance sailing during winter. The vessels are equipped with the latest safety gear and systems to monitor weather and sea conditions, enabling them to make quick and well-considered decisions in critical situations.

'Sailing to Sofia is not just a test of our overall capabilities; it is an opportunity to demonstrate our ability to innovate and deliver under extreme conditions,' adds Henriksen. 'This mission showcases our technological advancements, and we are proud to take on this challenge. We see it as a unique opportunity to demonstrate the capabilities of our vessels and the professionalism of our crew in practice.'

MHO-Co cements its position as a leading player in the offshore sector through the dispatching of MHO Balder and MHO Boreas to the wind farm. The mission proves the company's ability to handle complex operations in extreme environments while maintaining the highest standards of resilience. This is not just a voyage, it exemplifies the long-term vision for driving progress in the green transition and supporting the energy infrastructure of the future.

Future perspectives

The experiences from this mission to the wind farm will not only open doors for future

Technological innovation in the offshore sector

MHO Balder and MHO Boreas represent the pinnacle of maritime innovation. Their catamaran hulls provide increased stability, helping withstand the unpredictable North Sea conditions. Equipped with hybrid propulsion systems, reduces emissions and fuel consumption, supporting the company's sustainability goals. Advanced navigation and communication systems ensure precise control and constant contact with land-based control centres.

'These vessels are a result of our dedication to innovation and sustainability,' says Mik Henriksen, CEO of MHO-Co. 'Their capabilities make them ideal for the challenges of the Sofia Offshore Wind Farm.'

Sofia Wind Farm: a revolutionary green project

RWE is developing the Sofia Wind Farm, as one of the most ambitious and technologically advanced renewable energy projects, located at Dogger Bank in the North Sea. With a planned capacity of 1.4 GW, the park will generate enough electricity to power over a million British households. This production of

clean, renewable energy plays a central role in the UK. It is key to the country's CO₂ emissions' reduction goal and shifting to a sustainable energy supply.

The project uses progressive technology in offshore wind energy, including some of the world's largest wind turbines with rotor diameters of over 220 meters. Its infrastructure stands on foundations reaching depths of up to 35 meters below the sea surface. This makes the project a technical feat requiring extensive infrastructure to ensure efficient operation and maintenance.

The remote location of the wind farm at Dogger Bank, which is about 195 kilometres from the coast, places significant demands and challenges on both logistics and support. Especially during winters, access to the wind farm is assumed to be greatly affected by the weather when waves are high and winds are strong, making it difficult to reach the turbines.

Therefore, both vessels will be fundamental in ensuring optimal operation and maintenance under these challenging conditions. Their capability to travel long distances, operate in harsh weather, and provide a stable platform for service technicians make them crucial in

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projects in even more challenging environments but also strengthen MHO-Co's position as a leading player in the offshore sector. Testing the vessels and crews in the extreme conditions of the North Sea provides valuable insights that will contribute to optimizing both technology and operational processes in future offshore operations.

The mission marks a significant step in the company's development. Alongside this, continued advancements will enhance the efficiency and safety on board both vessels. This includes further optimization of hybrid propulsion systems and the integration of advanced safety solutions to enable operation under the harshest conditions. The Sofia mission is just the beginning; the lessons learned here are expected to lead to future projects in the energy sector, where even

greater distances from the coast and more challenging environments await.

MHO-Co's focus on innovation and sustainability makes it an attractive partner for international actors working in renewable energy. The ability to manage large projects in the offshore sector, combined with the technological capacity and professionalism of their crew, makes them a key player in the green transition. The company aims to expand collaborations and form new partnerships with global companies and governments focused on creating a more sustainable future.

Final thoughts

The mission with MHO Balder and MHO Boreas to the Sofia Offshore Wind Farm is not just a test of technological capabilities

but an important milestone in MHO-Co's journey to becoming a global leader in offshore support. The commitment to delivering sustainable solutions and investments in innovation positions as a key player in the transition to renewable energy.

'We look forward to playing a central role in this groundbreaking project and contributing to a cleaner energy future,' concludes Mik Henriksen. The Sofia mission is a clear demonstration of how human innovation and determination can lead to a more sustainable world. With both vessels at the forefront, MHO-Co is ready to take the next steps towards a greener future, where offshore operations will play a crucial role in the world's energy supply.

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