Contact us

You can get in touch with our community relations team at any time by any of the methods below:

Send us an email:
contact@hornseaprojectfour.co.uk

Contact our Community Liaison Officer, Andrew Acum, on:
andrew.acum@orsted.co.uk or 07939 065 719

Visit our website:
hornseaprojectfour.co.uk/

Visit our digital engagement platform:
www.tinyurl.com/hornsea4map

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Ørsted
Community
Newsletter

January
2023

Hornsea Four
Offshore Wind Farm

Introduction

Happy New Year and welcome to the latest community newsletter for Hornsea Project Four (Hornsea Four), a new offshore wind farm which Ørsted is proposing to develop in the North Sea, approximately 69 km off Flamborough Head on the Yorkshire Coast.

In this edition, we provide an update on the status of the Hornsea Four offshore wind farm and how we will continue to work with local communities and stakeholders. We are approaching an important milestone as we move towards receiving the Development Consent Order (DCO). We would like to thank you for the continued engagement and feedback we have received to date.

DCO application update

In September 2021, we submitted an application for Development Consent to the Planning Inspectorate. If granted, the DCO will provide us with consent to construct and operate Hornsea Four.

The process saw Hornsea Four undergo rigorous examination, particularly regarding the onshore components. No concerns were identified and our design therefore remains the same. A recommendation has been written by the Planning Inspectorate, and passed to the Secretary of State for Business, Energy and Industrial Strategy (BEIS) on the 22 November 2022. The decision of whether to grant consent or not is expected to be communicated to us at the end of February 2023.

Once the DCO is received, we will begin the next phase of the project which will see us develop detailed plans for the delivery of Hornsea Four.

Hornsea Four

Hornsea Four is Ørsted's fourth project in the Hornsea Zone. It will be located to the east of Hornsea One (now fully operational), Hornsea Two (now fully operational), and Hornsea Three (granted development consent).

Current DCO Order Limits (468 km²)

Existing operational Ørsted offshore wind farms

Granted consent

Hornsea Four includes an offshore array area of up to 468 km² where up to 180 wind turbines could be located.

If built out to full capacity, Hornsea Four could provide enough power to meet the average daily need of well over 1 million UK homes.[1]

[1]Whilst at this stage it is not possible to state the capacity of Hornsea Four, the wind farm is expected to have a similar number of turbines to Hornsea One, which has 174 turbines and will generate enough clean electricity to power over 1 million homes.

Environmental compensation measures

We have submitted an assessment of how Hornsea Four will impact with protected species and habitats that are part of the UK's National Site Network, a network of Special Areas of Conservation (SACs) and Special Protection Areas (SPAs) in the UK. This was submitted alongside the Environmental Impact Assessment (EIA) to inform the DCO application.

We originally held the position that Hornsea Four would not alone, or in combination with other plans or projects, adversely affect seabird species such as kittiwake, gannet, razorbill and guillemot associated with Flamborough and Filey Coast (FFC) SPA. However, due to the requests by the Secretary of State (SoS) in relation to other windfarm applications (e.g. Hornsea Three and Norfolk Boreas), we revisited our position at the beginning of the Examination phase and concluded that there was potential for Hornsea Four to have an adverse effect on the kittiwake feature of FFC SPA. As a result, we submitted compensation measures for kittiwake and an accompanying compensation measures for guillemot and razorbill features of FFC SPA, where agreement on "no adverse effect" could not be agreed at the point of application with the Statutory Nature Conservation Body (SNCB): Natural England. Should the SoS deem these are required, then Hornsea Four would deliver these compensation measures (helping protect guillemot and razorbill from predators, seagrass compensation and reducing bycatch).

Providing offshore nesting structures for kittiwake

Following successful surveys on population growth rates of kittiwake conducted in Summer 2022, our team has been able to confirm that providing artificial nesting sites out at sea is viable and will compensate for the potential impact of our project on the kittiwake. After discussion with numerous stakeholders including Natural England, we are considering two options to achieve this:

- The first option is to repurpose the existing Wenlock oil and gas platform, which is already home to an established kittiwake colony – our team counted around 70 apparently occupied nests in the June 2022 survey. The platform is scheduled for decommissioning in 2023. This repurposing presents an opportunity to preserve and increase this kittiwake colony for many future breeding seasons, which would otherwise be displaced.

- The second option is to construct a new offshore nesting structure. We have also looked at this and, following engagement with relevant stakeholders, have reached an agreement for a preferred location for a new structure, should it be required.

Helping protect guillemot and razorbill from predators

We have been exploring potential programmes to manage or remove predators, such as invasive brown and black rats, from existing guillemot and razorbill colonies with linkages to the UK's National Site Network. We have explored many different potential islands and selected the islands and islets in the Bailiwick of Guernsey as the most suitable location for this compensation measure.

Our work with the local community and stakeholders over the summer has informed how best to implement this potential compensation measure if required. We have carried out a series of rat surveys and a seabird census across the relevant islands and islets. The surveys have recorded rats in the same location as breeding guillemot and razorbill and gathered evidence of predation. In addition, formal community and stakeholder questionnaires, interviews and meetings were carried out by the consultants and then analysed by an expert social scientist at the University of Exeter. This research has been led by international experts who specialise in the removal of predators to help seabirds.

Seagrass compensation

To provide further resilience to our proposals, we have progressed seagrass restoration to support the other compensation measures. Restoring seagrass meadows has multiple biodiversity benefits including providing critical nursery habitat for the prey of kittiwake, guillemot and razorbill species.

Over the last year, we have been investigating and trialling seagrass restoration as a potential compensation measure with Yorkshire Wildlife Trust at Spurn Point. As part of this pilot trial scheme, Yorkshire Wildlife Trust has collected seagrass seeds and in October 2021 began the planting of the seagrass meadows. The newly planted seagrass meadows have been closely monitored and the results have been outstanding so far with a 70% success rate! A total of eight acres were planted by December 2022, and a further 1.8 acres will be completed by Spring 2023.

If Hornsea Four receives Development Consent, and the SoS determines that the compensation measures are required, Hornsea Four, working with Yorkshire Wildlife Trust, will plant 74 acres in total, which is the equivalent of about 43 football pitches. The 74 acres of seagrass will be planted over the next six years at Spurn Point, restoring vital seagrass meadows that have been lost in the Humber Estuary. This seagrass restoration programme is currently the largest proposed seagrass restoration project in the UK and Europe.

In collaboration with Hull's award-winning aquarium, The Deep hosted a Seagrass Festival in August and September 2022.

The event welcomed over 20,000 visitors and saw local communities help prepare the seagrass seeds by packing them to be ready for planting in Spring 2023. The Deep is also launching a special Seagrass Exhibition in early 2023, sponsored by Hornsea Four, which will champion the incredible seagrass meadows and the restoration efforts in the Humber Estuary.

Reducing bycatch

Seabird species can be further supported by reducing the chances of them being unintentionally caught by fishing activities – referred to as 'bycatch'. We have been working closely with fishers on this. We have arranged for 31 vessels within an active gillnet fishery on the south coast to use Looming Eyes Buoys on their nets over the winter which are designed to deter diving seabirds from entering the area while the nets are in place. The vessels have also been fitted with a high-resolution camera system to monitor the bycatch.

This work builds upon our investigation into bycatch reduction technology, which we held last year. We found a 25% reduction in bycatch of guillemot and razorbill by using the Looming Eyes Buoys. The Looming Eyes Buoys will be used on the vessels until March 2023 and the data from the cameras will then be analysed.

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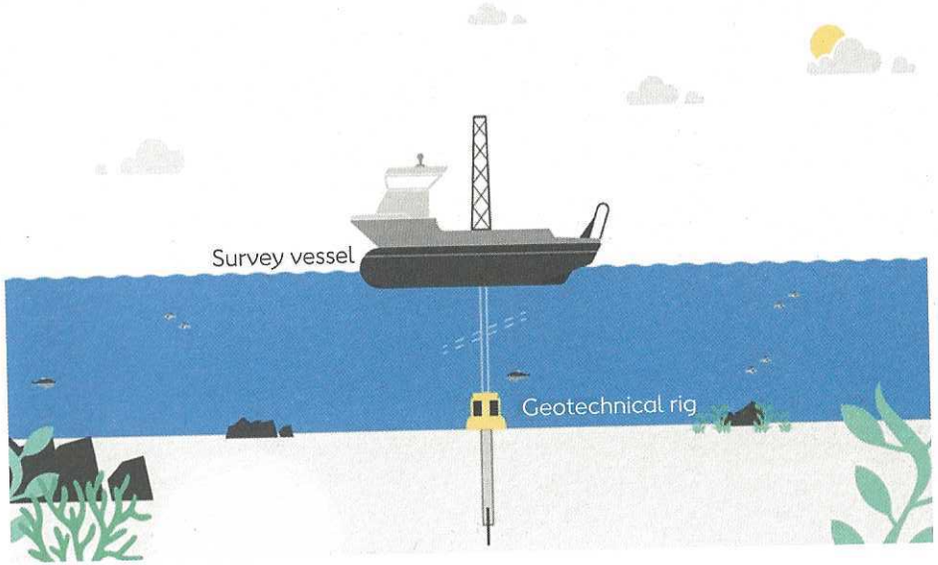
Kittiwake nesting under helideck of the Wenlock Platform

Site investigations

Over the past year, there has been exciting activity offshore, with our Hornsea Four team executing their second geotechnical site investigation campaign, following on from the first in 2019-2020. These site investigation campaigns are executed to better understand the seabed conditions in locations of future development (e.g. foundation positions). During each campaign, a geotechnical drilling vessel (pictured below) was mobilised to the Hornsea Four site to collect soil samples and complete in situ ground testing. The geotechnical drilling vessels drill a borehole where samples of soil are extracted from the seabed to approximately 50 m depth to determine or "classify" the soil conditions at that location. These soil samples are sent to a specialist geotechnical laboratory to determine their strength and stiffness, which are key inputs into engineering analysis for the foundations of wind turbine generators. The most common type of in situ test performed are cone penetration tests (CPTs). A CPT test consists of pushing an instrumented cone, with the tip facing down, into the ground at a controlled speed. The data collected gives very accurate indications of the soil layering, soil strength and stiffness that can be compared to the testing performed in the geotechnical laboratory.



The soil layering and the strength and stiffness of the different soils are important at each location, as the information helps the design of the foundation, called a monopile, which will be installed into the seabed. This campaign also focused on collecting data to support the design and installation of the electrical cables that will connect Hornsea Four to the National Grid. All the measurements and information received from this geotechnical campaign will be combined with the previously acquired geophysical data to create a 3D geological model or "ground model" of the subsurface from the landfall point to the Hornsea Four site.

Stay tuned for more progress updates!

Meet the team

Gabrielle Waterman
Stakeholder Advisor
UK Stakeholder Relations

As Stakeholder Relations Advisor, my role is to lead on all the stakeholder engagement activities associated with Hornsea Four. I look forward to the project hopefully receiving Development Consent Order in February, to undertake more detailed engagement with our stakeholders throughout the next phase.

Craig Harwood
Project Director

As Development Project Director for Hornsea Four I am responsible for leading the team through the next phase of the project development. That means further developing the proposed technical solution and leading the engagement with our supply chain partners who will ultimately deliver the project on our behalf. As these workstreams mature, we will then be in a position to take a Final Investment Decision (or FID). This is the key milestone that not only marks the commencement of construction, but also the transition to the Execution team who will be responsible for the construction phase.

Next steps

2023 is set to be an exciting year, as Hornsea Four awaits the consent decision. Once the Development Consent Order is received, we will begin the next phase of the project which will see us develop detailed plans for the delivery of Hornsea Four. This will include finalising technical design, selecting our supply chain partners and taking a final investment decision.

Transition to digital newsletters

We will be phasing out printed copies of our newsletters following the publication of this latest update. However, we want to keep you updated and will continue to post our newsletters virtually. You can sign up to access our future newsletters and keep up to date with our project updates by scanning the QR code.