



Hornsea 4 Offshore Wind Farm



Community newsletter | October 2024

Introduction

Welcome to the latest community newsletter for Hornsea 4: an 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 latest edition, you will find insights into our recent activities including onshore surveys and upcoming works around our onshore substation site, as well as how we are progressing with our environmental compensation measures for seabirds.

We are also delighted to announce the exciting news that Hornsea 4 has recently been awarded a contract for difference (CfD) by the UK Government. In this newsletter we explain what this means for the project.



←
Hornsea 2 Offshore
Wind Farm – 1.3 GW.

Welcome from our new Managing Director, Alana Kühne:



I am delighted to confirm that Hornsea 4 offshore wind farm has been awarded a 2,400 MW contract for difference (CfD). This is a major milestone for the project and we are now focused on moving towards taking a final investment decision (FID), within the next 18 months. Our current plan would see Hornsea 4 commissioned before the end of 2030.

Hornsea 4 will be Ørsted's fourth gigawatt-scale project in the Hornsea zone, alongside Hornsea 1 (1.2 GW) and Hornsea 2 (1.3 GW), both currently in operation, and Hornsea 3 (2.9 GW) currently under construction.

The addition of Hornsea 4 will create an offshore wind cluster of around 8 GW – capable of providing electricity to millions of UK homes. The project would also support thousands of jobs, both directly and indirectly, throughout construction and long-term operations.

As we continue to advance towards delivering the final project in our Hornsea Zone, we remain committed to engaging with the local community and ensuring we deliver Hornsea 4 in a safe and sustainable way.



Alana Kühne
Managing Director

About Hornsea 4

Hornsea 4 is Ørsted's fourth project in the Hornsea Zone. It will be located to the west of Hornsea 2. Hornsea 1 (1.2 GW) and Hornsea 2 (1.3 GW) are now both fully operational, and Hornsea 3 (2.9 GW) is presently under construction.



Hornsea 4 will include an offshore array area of up to 468 km², where up to 180 turbines could be located. It is likely that approximately 160 turbines will be constructed.



Hornsea 4 secured a CfD for 2,400 MW capacity which would provide enough power to meet the needs of approximately 2.6 million homes in the UK.¹



Hornsea 4 will deliver thousands of high-quality jobs and billions of pounds of investment into the UK's offshore wind industry.

1. The equivalent number of homes is calculated by: Wind farm installed capacity (in MW) multiplied by the number of hours in one year (8,760) multiplied by the average load factor for offshore wind (being the average load factor for offshore wind over the last five years of data published within the Digest of United Kingdom Energy Statistics, DESNZ, 2024), divided by the average annual household energy consumption (data published by DESNZ, 2024).

Hornsea 4 awarded a contract for difference

On the 3rd September 2024 Hornsea 4 was awarded a contract for difference (CfD) by the UK Government.

The CfD mechanism, provided by the UK Government, guarantees a fixed sale price for the electricity generated. This provides revenue certainty for the developers, as if the market price falls below the agreed strike price, the government pays the difference; if it rises above, the developer pays the excess to the government.

For Hornsea 4, the award was a CfD for 2,400 MW capacity at a strike price of £58.87 per megawatt hour (MWh) (real 2012 prices). This sets a fixed price at which we will sell the electricity generated by Hornsea 4 for the first 15 years.

The CfD scheme is the government's main mechanism for supporting low-carbon electricity generation. This long-term revenue mechanism provides financial stability and encourages further investment in renewable energy projects. Securing the CfD is a fantastic milestone after many years of hard work.

We will now focus on working towards the final investment decision (FID).



↑ Hornsea 1 Offshore Wind Farm – 1.2 GW.

Project updates

Onshore surveys

Since our last newsletter in September 2023, we have been busy undertaking survey works to provide valuable information to further develop our knowledge of the onshore substation site and landfall site.

Archaeology surveys

Archaeological investigations began in September this year around our onshore substation site and our access road to the substation from the A1079. These surveys are undertaken to build on our understanding of the area and ensure we protect and preserve any archaeological finds that may be present. The archaeological work to be carried out this autumn is also likely to include the Hornsea 4 landfall site at Fraisthorpe Beach.

The archaeological investigations require the excavation of trial trenches at multiple sites and the recording of any finds. Once the work is completed, the trial trenches will be returned to their original state. Next year, we will continue with the archaeological investigations along the cable route between the landfall site and the onshore substation.

Archaeology surveys around our onshore substation site.



↑ Image from landfall site visit for ecological surveys.

Ecological surveys

Royal Haskoning DHV, our consultants, have been busy undertaking a series of pre-construction ecological surveys to confirm the presence or absence of habitat and species near the onshore substation and landfall.

They conducted the surveys between July and August 2024, with more planned for between May and September 2025.

Ecologists have searched for evidence of badger, otter, water vole, and other invasive non-native species, as well as habitat condition assessments along the streams and rivers near the onshore substation area and landfall site. Ecologists also searched for nesting barn owls at the landfall site and in surrounding suitable habitat.

Royal Haskoning DHV enlisted help from local ecologists Hiscocks Ecology to survey for great crested newts. These surveys included collecting and testing pond water near the project. Local ecologists Smeeden Foreman also conducted bat surveys, which included tree climbing inspections of mature trees to check for bat roosts.

The results of these surveys will inform the development of our Ecological Management Plans to minimise harm to local protected species and habitats.

Upcoming onshore works

In 2025 we will begin construction of the access road for our onshore substation, from the A1079. The first stage of this will be an extension of the existing lay-by on the A1079 to the east of the Jock's Lodge junction.

The lay-by extension will be carried out by East Riding of Yorkshire Council on our behalf, as part of the ongoing Jock's Lodge improvement scheme. This is to minimise disruption on the road network by working within the existing traffic management and carriageway closure.

Following the construction of the junction, work will commence on the 2 km access road to the substation site. This work is due to be completed by winter 2025.

Onshore substation design

The design of the onshore substation will continue to progress throughout 2025. It is important to us for a 'sense of place' to be considered throughout the design process, ensuring any potential adverse environmental impacts are mitigated where possible, whilst respecting landscape character.

We have recently appointed an Independent Design Review Panel, including an architect, landscape architect and an independent chair, to help shape the substation design to ensure it complements the local landscape. Final proposals will be subject to East Riding of Yorkshire Council's approval.

Seabird compensation

The UK Government granted us permission to build Hornsea 4 in the summer of 2023, with the requirement that we include special ecological measures to mitigate any potential environmental impacts Hornsea 4 may have on some species of seabird.

Guillemot

We have been working closely with key stakeholders to develop our environmental compensation measure plans for guillemot (*Uria aalge*), a common seabird that only comes to land to nest, which could be potentially impacted by Hornsea 4.

To compensate for any potential disruption to guillemot breeding areas from Hornsea 4, we intend to deliver a Seabird Enhancement Programme in the Channel Islands.

Our objective is to increase the number of rat-free nesting sites that will allow the guillemot population to increase and add to the UK's National Site Network. We have undertaken extensive feasibility work and identified suitable locations that are potential nesting sites for guillemot.

Additionally, this may provide broader ecosystem benefits, including enhanced biodiversity and recolonisation of seabird species in the Channel Islands.

Our world-leading consultants, Habitat Assessment & Environment Ltd are preparing to carry out the work safely and effectively, engaging closely with local stakeholders and the local community.

We are also exploring options to pursue our bycatch measure which will reduce the chances of guillemot being unintentionally caught by fishing activities. These options will be delivered together as a package to increase the likelihood they will be effective.

Kittiwake

We are also required to include ecological compensation measures for black-legged kittiwake (*Rissa tridactyla*), a gull species whose population could potentially be impacted by the wind farm. Specifically, we are required to provide artificial nesting structures for at least 750 pairs of kittiwake, to support the local colonies and encourage new chicks to the population.

This is a creative solution we already have experience with, having had the same requirement for Hornsea 3.

We have recently submitted the Kittiwake Compensation Implementation and Monitoring Plan to the Department for Energy Security and Net Zero (DESNZ) for approval by the Secretary of State, as required by our development consent order.

↓ Black-legged kittiwake.



Community updates

Drifffield show

This year, Hornsea 4 once again attended the annual Drifffield show. Our Stakeholder Relations, Environment and Consents, Technical, and Land and Property team members were joined by our land agents, Dalcour Maclaren, to ensure all questions could be addressed.

We were also accompanied by the Yorkshire Wildlife Trust, who took the stand next to us. This allowed us to showcase the Wilder Humber seascape restoration project we've partnered on, a programme seeking to restore marine habitats and species throughout the Humber estuary, combining sand dune, saltmarsh, seagrass and native oyster restoration.

It was great to be back at the show, speaking with the local community and addressing their questions about Hornsea 4 and Ørsted.

We had some very positive conversations with landowners and key stakeholders and look forward to next year.



← Hornsea 4 team talking to local residents at the Drifffield show.



← Student visiting our East Coast Hub Visitors Centre.



Net-zero work experience

At Ørsted, we are passionate about supporting education and skills development for the future of the offshore wind industry in the UK. In 2024 so far, we have already hosted over 600 students, teachers and work coaches to our visitor centre in the East Coast Hub, the UK's largest Operations and Maintenance Base, where we operate six of our offshore wind farms from.

This year we also took part in a net-zero work experience pilot lead by the Hull and East Yorkshire Careers Hub, working with schools in Hull and East Yorkshire to deepen their understanding of the current and emerging roles available in our industry. We visited three secondary schools and also hosted students at our East Coast Hub to give them a better understanding of the offshore wind sector.

The students took part in a number of different activities during their visits, including learning about the day in the life of an offshore wind technician and trying our virtual reality headsets to visualise what it's like to work on an offshore wind farm.

We look forward to continuing our skills engagement in the region as Hornsea 4 progresses.

Meet the team



Gabrielle Waterman

Stakeholder Advisor

In my role as Stakeholder Advisor on Hornsea 4, I focus on working with the communities and other key stakeholders that may be impacted or affected by the construction process of the project onshore. We aim to provide regular communications through a variety of means, including this newsletter, to provide useful and timely information as well as maintaining good communication lines with the community to manage and respond to enquiries.



Rikke Elise Langthin-Knudsen

Onshore Environment Manager

As Onshore Environment Manager, I play an important role supporting the sustainable development and construction of Hornsea 4. I'm excited to work collaboratively with engineering colleagues and external stakeholders to deliver a project that not only minimises environmental impacts but adds a net-positive legacy for nature and society.



Jemima Wakelin

Environment and Consents Specialist

In my role, I focus on progressing the Hornsea 4 project and expanding renewable energy capacity in the right way, with consideration for any potential environmental impacts. I work across the onshore and offshore elements of Hornsea 4, with a particular focus on guillemot compensation.



Callum Vale

Commercial Fisheries Manager

My role as Commercial Fisheries Manager is to build and support Ørsted's relationship with the fishing industry to promote co-existence and mutual respect between our two industries. Through pro-active communication, collaboration, and coordination with the fishing industry, we aim to maintain good relationships that will remain for years to come.



Next steps

Indicative construction schedule:

The project is currently working towards the following construction schedule (note that the timing of construction work is indicative only at this stage and will be dependent on the Hornsea 4 project successfully passing a final investment decision).



- Construction of the access track from the A1079 to the onshore substation is likely to start in summer 2025. This access track will be just over a mile in length.
- Onshore construction, other than the access track to the substation, is likely to start no earlier than the second half of 2025. This will likely consist of site enabling works and the set-up of a temporary construction compound at the onshore substation, close to the existing National Grid Creyke Beck substation.



- Onshore survey activity at the substation location and along the onshore cable route is going to continue until the start of construction. This will involve non-intrusive survey work such as habitat surveys, as well as intrusive works such as archaeological trenching and trial pits.

We will be working closely with all our landowners along the cable route and at the onshore substation to ensure these works take into consideration all our onshore stakeholders.

- Offshore pre-construction site investigation surveys along the offshore export cable and the wind farm array will take place from Spring 2025. These surveys are required ahead of finalising our cable route, foundation design and turbine layout for the project.



2030

- Offshore construction will start later and the intention is that Hornsea 4 is fully operational by the end of the decade.

Contact us

We value your feedback and are here to answer any questions you may have about the Hornsea 4 project. Please feel free to reach out to us through the following channels:



Send us an email

contact@hornseaprojectfour.co.uk



Visit our website

hornseaprojects.co.uk/hornsea-project-four



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