



Ørsted
Community
Newsletter

June
2019

Hornsea
One and Two
Offshore
Wind Farms

Welcome to the latest community newsletter for Hornsea One and Two

Another exciting milestone has been reached offshore for Hornsea One where construction is progressing well. All foundations have now been installed and we remain on schedule to meet our 2020 target completion date for delivering the world's largest operational offshore wind farm.

Onshore, our construction works for Hornsea Two are underway, with work currently concentrated south of Grimsby. We are implementing an optimised cable laying technique for Hornsea Two which will allow a significant reduction in the duration of trenching and burial works needed to complete our 39 km long onshore cable route.

I am pleased to say that we have awarded a contract for Horizontal Directional Drilling (HDD) at our landfall site to a local company, reaffirming our commitment to the Humber region through our continued support of the local supply chain.



Duncan Clark
Programme Director, Hornsea One and Two

About Ørsted

We are a renewable energy company with the **vision to create a world that runs entirely on green energy**. Climate change is one of the biggest challenges for life on earth; we need to transform the way we power the world.

We have invested significantly in the UK, where we now develop, construct and operate offshore wind farms and innovative biotechnology which generates energy from household waste without incineration.

Over the last decade, we have undergone a truly green transformation, halving our CO₂ emissions and focusing our activities on renewable sources of energy.

We want to revolutionise the way we provide power to people by developing market leading green energy solutions that benefit the planet and our customers alike.

Where are the Hornsea offshore wind farm projects?



- Hornsea One and Two
- Hornsea Three
- Proposed location of Hornsea Four
- Operational Ørsted offshore wind farms

Hornsea One is located 120 km from the Yorkshire coast and is under construction offshore. Hornsea Two is adjacent to Hornsea One and will be situated 89 km from the coast.

Hornsea Three is currently in its development and planning stage and will connect into the national grid in Norfolk. To find out more, please visit: www.hornseaproject3.co.uk

Recently, Hornsea Four entered the pre-application consultation phase and is due to submit a Development Consent Order (DCO) application over the next couple of years. For further information on the proposals, please visit: www.hornseaprojects.co.uk/Hornsea-Project-Four

Hornsea One offshore wind farm



Hornsea One has a capacity of 1.2 GW



It will provide enough power for well over 1 million homes



The wind farm is as far away from shore as Hull is from Hartlepool as the crow flies



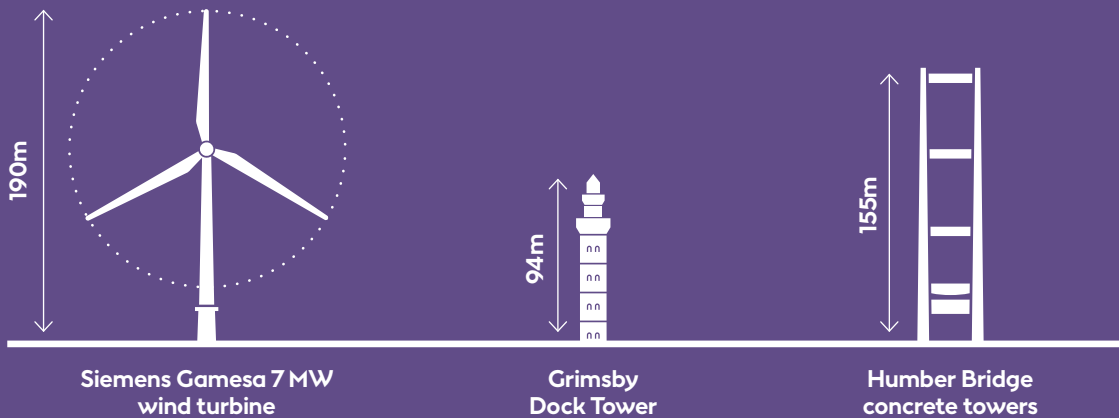
All onshore cables have been installed and reinstatement of the land is almost complete



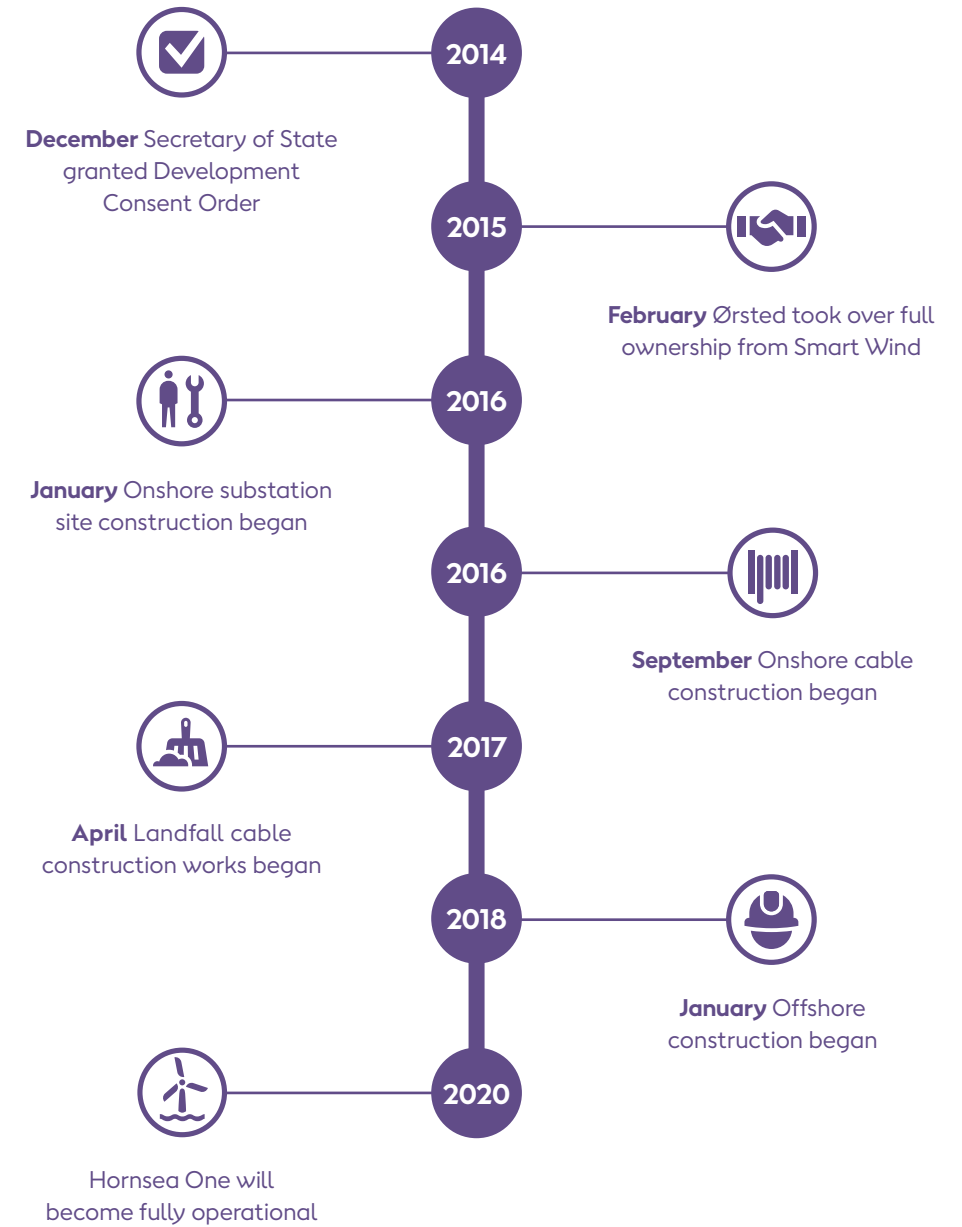
All 174 foundations and monopiles have been installed offshore



Over 50 turbines have been installed



Hornsea One timeline



Latest news

Hornsea One reached a significant milestone in April with the completed installation of all 174 foundations and monopiles. More than 30,000 bolts were used to connect the monopiles and transition pieces. This achievement represents the culmination of nearly a year and half's work; the first monopile foundation was installed towards the end of January 2018.

Work is also progressing well on turbine installation. Over 50 7 MW turbines are now in place and supplying clean electricity, having

passed operational testing over a period of 240 hours. The turbines are now delivering clean green electricity to the grid and will continue to be tested and maintained to ensure they are operating efficiently.

It is expected that turbine installation will continue until late summer 2019. Once complete, Hornsea One will become the largest operational offshore wind farm in the world, capable of generating enough energy to power well over one million homes.



Offshore turbine foundation installation

Hornsea Two offshore wind farm



Hornsea Two has a capacity of 1.4 GW



It will provide enough power for well over 1.3 million homes



The wind farm will be located 89 km off the coast of Yorkshire



The onshore cable route will run in parallel to that of Hornsea One — between landfall at Horseshoe Point and the onshore substation in North Killingholme



Hornsea Two is due to be completed in 2022

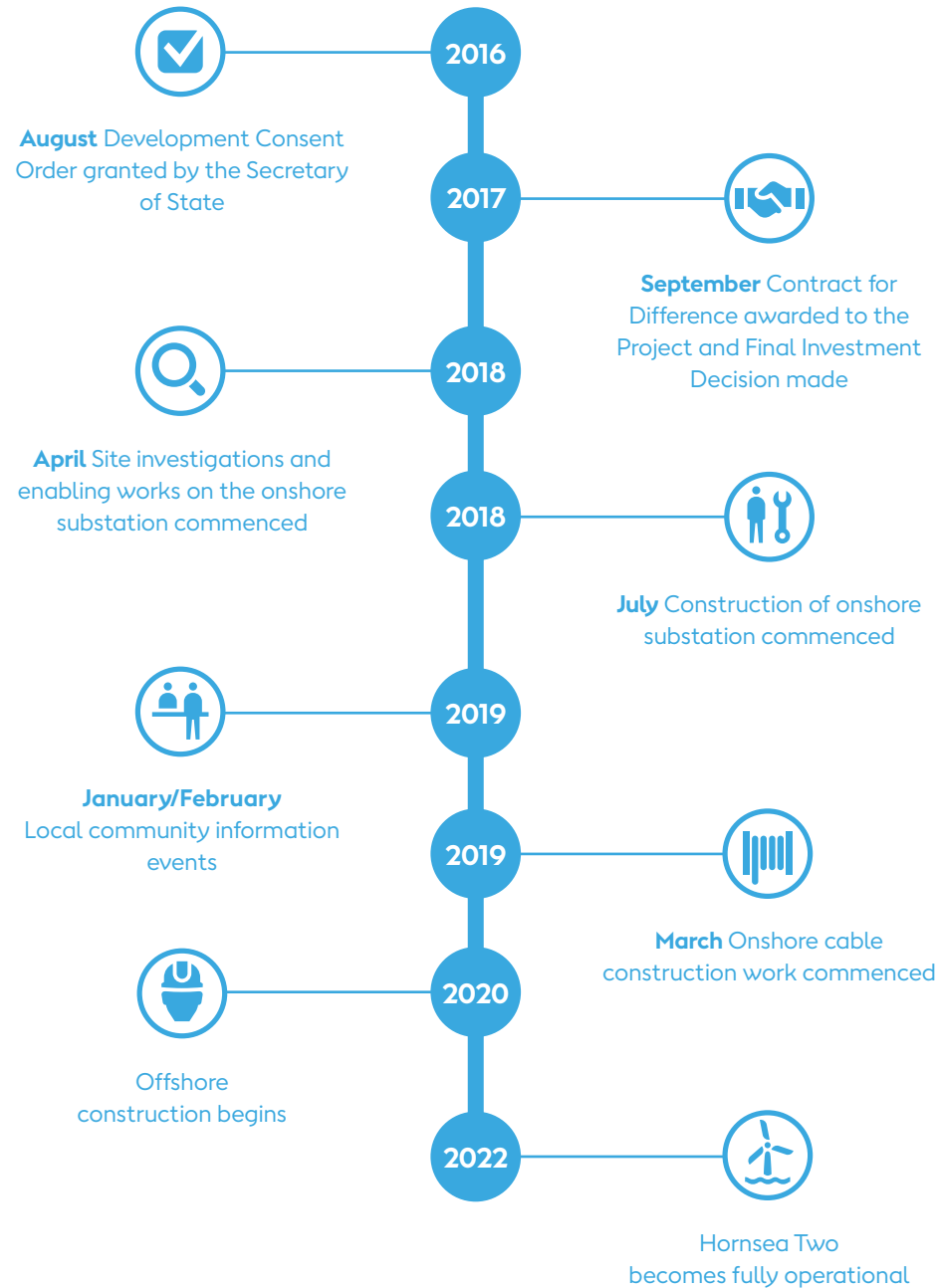


The onshore cables will be installed via ducts to speed up the cable laying process



Archaeological investigations along the cable route are ongoing

Hornsea Two timeline



Latest news

We have now received planning permission for our main site compound for Hornsea Two onshore export cable installation which will be located on Humberston Road, Tetney. This will serve as our main operations base for the project team from Ørsted and for our primary contractors who will be working on the project. The site will primarily consist of offices and parking for employees.

Preparatory activities including pre-construction drainage works, topsoil stripping and the installation of the Haul Road for construction traffic on the project have taken place in preparation for the start of onshore construction which is beginning on the southern half of the route.

Archaeological discoveries

Archaeological excavations are well underway for Hornsea Two. This work is adding to our existing knowledge of the sites uncovered along the cable route for Hornsea One and is helping to contribute to our understanding of past human occupation and management of the local landscape.

Several sites were recently investigated by our contractors, Allen Archaeology Ltd, in advance of construction starting.

One of the most complex sites excavated to date is located near South Killingholme. The team has found evidence of a Romano-British rural settlement dating from the late Iron Age. There is also evidence of later activity during the medieval period.

An unusual patera, similar to a small saucepan often associated with military kit, was discovered in a ditch near Holton-le-Clay. It is believed to have been used at a Romano-British farmstead.

The cable corridor crosses through a salt-processing site near Tetney which is thought to be of medieval origin. Several clay-lined pits were



Patera

recorded which are thought to have been used as filtration tanks to filter salt from the salt-rich sediments deposited by high spring tides.

The archaeological archive for Hornsea Two, including any artefacts found, will be stored within the North Lincolnshire Museum Service.

New contract awarded

We have appointed Scunthorpe-based AMS Trenchless Specialists as the principal contractor to deliver Horizontal Directional Drilling (HDD) at the landfall site for Hornsea Two.

The contract, worth well over one million pounds, will be the second between AMS and Ørsted; AMS also helped to deliver HDD work for Hornsea One. The appointment builds on Ørsted's commitment to support local and UK-based companies. Our supply chain also includes our Lancashire-based onshore cable route installers VolkerInfracore, and Balfour Beatty who are constructing our onshore substation.

“ We're delighted to welcome another UK firm to join us in building the UK's largest renewable energy project currently under construction.

Duncan Clark, Programme Director for both Hornsea One and Two

HDD works on the project are expected to start shortly, in the area where the offshore cables meet the onshore cables at landfall. We will then continue works along the cable route until September 2019.



Horizontal Directional Drilling (HDD)

The cable routes for Hornsea One and Two cross a number of structures including a sea defence, roads, and rail crossings.

To minimise disturbance to the local community and to reduce the need for diversions or road closures, we employ a trenchless cable laying method called HDD.

HDD involves installing ducts beneath the relevant structure through which the cable can be pulled.



HDD in operation

Time-saving cable laying technique

Onshore cable laying work on Hornsea Two will be undertaken using a different method to that employed during Hornsea One. We are implementing a ducting technique which is a more flexible method that helps minimise disruption from ground works.

Ducting allows work to be carried out on a section-by-section basis, which helps to minimise the duration of the cable installation works and significantly reduces the amount

of time that the topsoil is left uncovered. This will also mean that landowners can have quicker access to their land as each section is completed.

The technique involves cables being pulled through a special winch. The cables will run 39 km from the landfall site at Horseshoe Point to the newly constructed onshore substation at North Killingholme.

Onshore substation update

Onshore substations are an important part of our offshore wind farms. They harness and manage the power which is generated by the turbines offshore and transfer this energy to the national grid.

Our substation for Hornsea One at North Killingholme is now nearing completion after three years under construction.

Civil engineering works are progressing well at the onshore substation for Hornsea Two which lies directly adjacent to the Hornsea One onshore substation. It covers an area of 32,000m², equal to the size of five football pitches. Many of the individual structures within the footprint of the onshore substation are nearing completion and work is currently on schedule and within budget.

Over 250 jobs are being created during the construction phase and additional jobs will be created to manage the operational phase of both substations.

Our focus is starting to turn towards this summer when we expect the high voltage equipment to start arriving. In preparation for this, we are working closely with our suppliers to ensure smooth delivery and installation.



Aerial photograph of the onshore substation



East Coast Community Fund

The East Coast Community Fund is part of Ørsted's community engagement programme for our Race Bank and Hornsea offshore wind farms which are located off the Yorkshire, Lincolnshire and North Norfolk coast.

We have committed to a Community Fund worth £465,000 each year for the next 20 years. There are two funding rounds each year. To be eligible to apply for a grant, your project must be both located and for the benefit of communities within the funding area. Grants from £1,000 up to £50,000 are available.

The Fund was launched in December 2016. To date, well over £900,000 has been donated to more than 80 deserving projects. In total, over the 20-year lifespan of the Fund, up to £9.3 million will be made available for community and environmental projects in the coastal areas of Yorkshire, Lincolnshire and North Norfolk.

The next round of funding is open to applications until 14 August 2019.

For more information on the Fund and to check eligibility criteria, visit: www.grantscape.org.uk/fund/eastcoastcommunityfund

You can contact GrantScape on **01908 247634** or via email at: eccf@grantscape.org.uk.

East Coast Community Fund awards

In April 2018, the results of the latest Ørsted Community Fund awards were announced by our partners, GrantScape. Grants worth almost £190,000 have been awarded to 14 local projects whose applications were successful. Two of the successful projects are featured below.



Soup Kitchen volunteers at St John and St Stephen Church Soup Kitchen

St John and St Stephen Church Soup Kitchen has been awarded a grant to enable them to provide support to those in need.

“ Thank you so much for your donation of £9,915 which helps us to continue with our Soup Kitchen. This funding will ensure at least thirty different people a week get a hot meal twice a week. Not only that, they can come and get help with accessing benefits, health care, housing and much, much more.

Security of funding is vital for everyone. You have made this difference.

Reverend Kay Jones, Priest in Charge at St John and St Stephen Soup Kitchen



Aerial photograph of the Oasis Garden at Your Place, Grimsby

Photo credit to Big Picture Charity Films

“ We are delighted to receive a grant of £18,407 from the East Coast Community Fund for our Garden Buddy Scheme. This money will be used to run the project for the next two years.

Our project enables people who would not otherwise be able to cope with gardening tasks to be ‘buddied’ with more able volunteers who can befriend, support and encourage them to become a valuable and useful part of our volunteer team. Thank you so much, this money will make a great difference in the lives of many people.

Chris Taylor, General Manager at Your Place

Community engagement methods

We have a range of engagement initiatives which allow you to follow the progress of the projects or to contact us with your questions. These include:



Local community events

We held events in January and February 2019 to explain more about the onshore works for Hornsea Two.



Local engagement

The project team meets with several parish councils to share plans and engage with the local community.



Website

orsted.co.uk



Twitter

[@OrstedUK](https://twitter.com/OrstedUK)



Freephone information line

0800 111 4478

The Freephone information line is open for calls between 9am and 5pm, Monday to Friday, with an answer phone facility to take messages outside these hours.



Community liaison officer

We have a dedicated community liaison officer, Dereth Morgan, who covers both projects in an onshore capacity. Dereth is the first point of contact for onshore enquiries from the local community.

You can contact Dereth by calling **07472 617 839** or by emailing community@hornsea1and2.co.uk

Ørsted
5 Howick Place
London
SW1P 1WG

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