

Hornsea One Offshore Wind Farm



 Orsted

Welcome to Hornsea One

Hornsea One will be the largest offshore wind farm in the world, comprising of 174 turbines with a combined total capacity of 1.2 GW.

Ørsted is the largest offshore wind developer in both the world and the UK. Since 2004 we have been developing, constructing and operating offshore wind farms in the UK our biggest market. Our 11 operational offshore wind farms are powering over 3.2 million homes and with another two in construction this number will rise to 5.5 million homes by 2022.

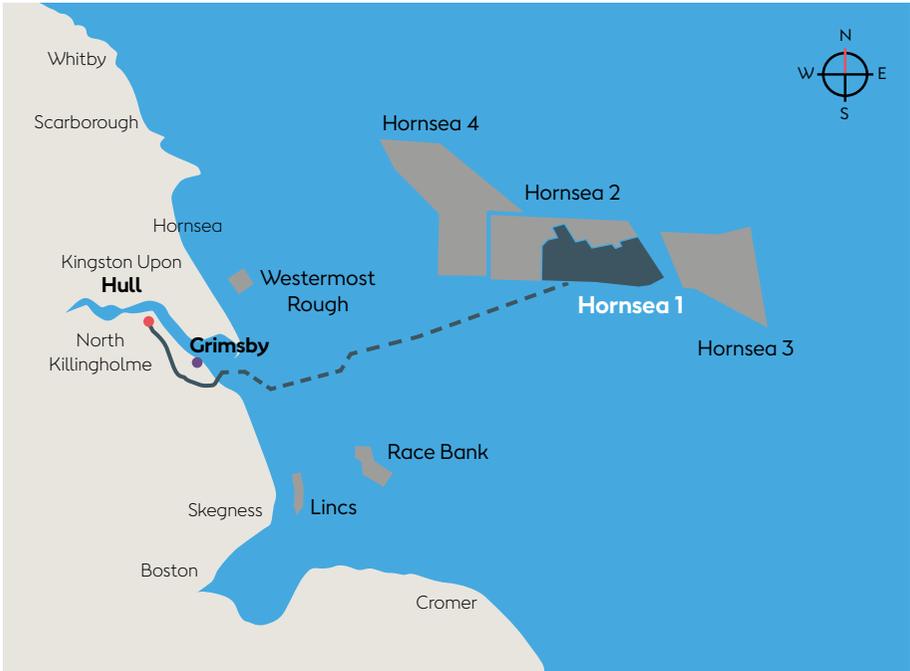
In addition to our offshore wind farms, we construct battery-storage projects, innovative waste and recycling technology and provide smart energy products to our commercial and industrial customers. We currently employ 1,000 people in the UK and have already invested over £9.5 billion. We will invest at least a further £3.5 billion by 2021.

We are committed for the long-term, both to leading the change to green energy, and to investing in the communities where we operate.



Where is Hornsea One?

Hornsea One will be located 120 km (74.6 miles) off the Yorkshire coast in an area covering approximately 407 km² (157.2 sq mi).



 Hornsea One Offshore Wind Farm

 Cable Corridor / Route

 Onshore Substation

 Operations and Maintenance Base

Ownership

The project is 50% owned by Ørsted and 50% owned by Global Infrastructure Partners (GIP).

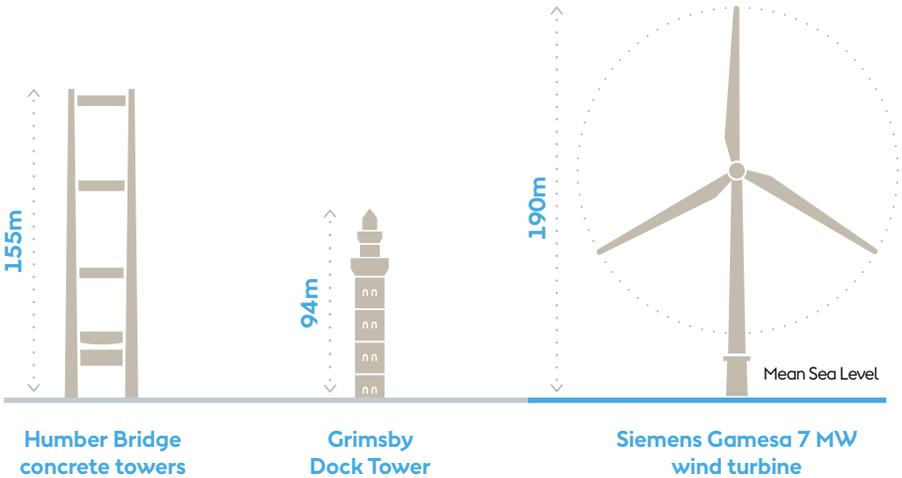
How big is it?

The project will span an offshore area of

407 km².

This is equal to **58,500** times the size of Blundell Park, home of Grimsby Town F.C.

The 120 km distance from shore to the wind farm is greater than the distance from Sheffield to Hull.



How much clean electricity will it produce?



The project has a capacity of

1.2 GW



It will provide enough power for well

over **1** million homes ¹

What will we be doing in the local area?

Ørsted is committed to investing in the Humber region and supporting education and employment creation. We have developed an employment and skills plan to highlight employment and supply chain opportunities associated with the construction, operation and maintenance of an offshore wind farm project.

We are also investing £10 million to build the UK's largest offshore wind operations base in Grimsby, the East Coast Hub.

Through our East Coast Community Fund, we support a wide range of community and environmental projects in the local area. Funding applications can be made via grantscape.org.uk/fund/eastcoastcommunityfund

What challenges will we encounter?

As the project is so far from shore, maintenance of the 174 turbines will be challenging. It will mean that we need to develop new concepts and solutions for transport, access and accommodation for personnel working out at the wind farm.

¹ We have based this on the BEIS 5-year average load factor of 38.6% and a household consumption of 3,828 kWh per year. Source: BEIS DUKES (2018), BEIS ECUK (2018)

Project Timeline



December
2014

Development Consent granted by Secretary of State



February
2015

Full ownership taken over from Smart Wind



January
2016

Onshore substation site construction begins



September
2016

Onshore cable construction works begin



April
2017

Landfall cable construction works begin



January
2018

Offshore construction begins



2020

Fully operational

What makes this project special?

At 1.2 GW and with the capacity to power over 1 million homes, Hornsea One will be the world's largest offshore wind farm when it is commissioned.

// Hornsea One is the first offshore wind farm with a capacity of over 1 GW. To make this next generation of wind farm possible, the entire supply chain has really stepped up, improving products and processes, refining skills and together leading offshore wind to its market leading position, where it is now competitive on cost of electricity.

I'm confident we will continue to work to the high standards already demonstrated, and together, deliver the biggest renewable energy project in the UK.

Duncan Clark, Programme Director, Hornsea One and Two

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