

# Hornsea 4



## Horizontal Directional Drilling (HDD)

The cable route for Hornsea Four may need to cross a number of structures such as 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 Horizontal Directional Drilling (HDD).

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

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## Our commitments



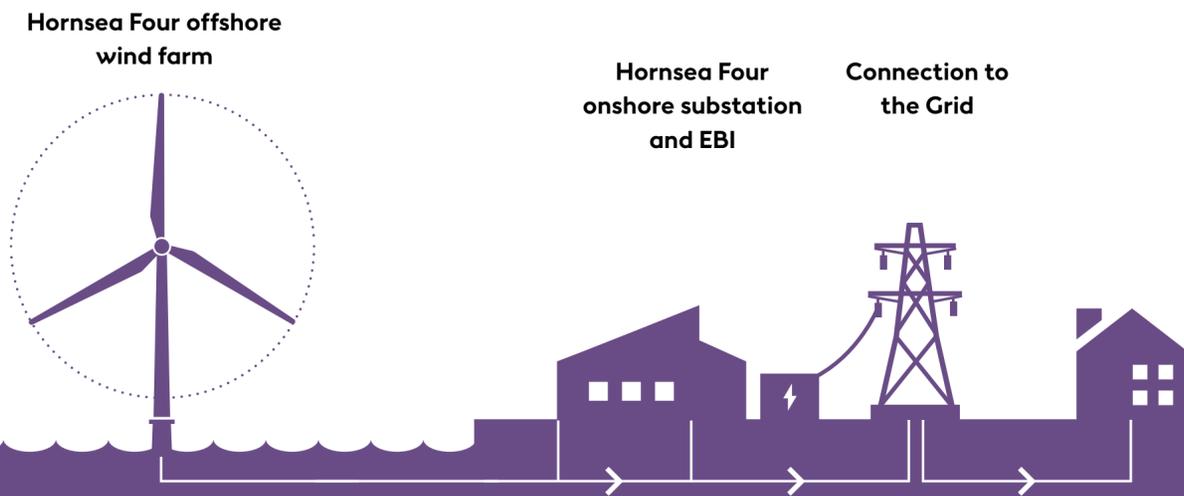
### We have already committed to:

-  Bury the onshore export cable corridor completely underground for its entire length (Co25)
-  Cross all main rivers, roads and railways via Horizontal Directional Drilling (HDD) or other trenchless technology (Co1)
-  Avoid crossing the Holderness Inshore Marine Conservation Zone (MCZ) and Greater Wash Special Protection Area off the East Yorkshire coast (Co44, Co86)
-  Route the onshore export cable corridor to avoid all residential properties by at least 50m (Co49)
-  Locate cable installation works at least 200m from residential receptors at the landfall area (Co134)
-  Take a new access directly from the A1079, to direct construction traffic away from Cottingham and Dunswell (Co15)

**Speak to a member of our project team today to better understand how you can input into our commitments register.**

# Introducing Energy Balancing Infrastructure

For Hornsea Four, we are proposing to develop Energy Balancing Infrastructure (EBI) which will be included within the footprint of our onshore substation electrical infrastructure.



Across our homes and businesses, we use electricity for heat, light, to power appliances, gadgets and much more.

Electricity production needs to match the energy we consume at all times. Balancing production and consumption involves accurate forecasting and careful management of energy sources by our Electricity System Operator, National Grid.

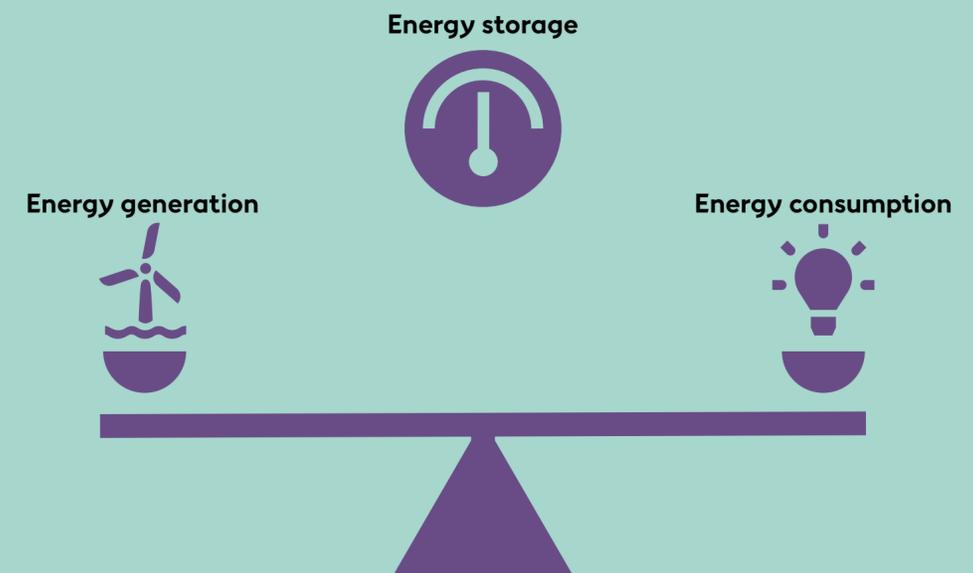
# How does Energy Balancing Infrastructure work?

As renewable energy becomes an increasingly significant source of our energy, the production of this energy will, by its nature, become more variable. The ability to store any excess energy which is produced or fill in gaps when not enough energy is produced will be essential to maintaining a stable electricity network system which keeps our lights on and our appliances running.

The benefit of EBI is that it can resemble both a generator and a consumer. By using technologies such as Batteries, EBI can import energy when too much is being generated or export energy when not enough is being generated. Energy storage is also extremely fast to respond and is therefore a very useful tool to help keep everything balanced.

In the past, much of this balancing has been provided by conventional power plants such as coal or gas-fired stations, but as we move towards decarbonising our energy sector, these power stations are being retired and we need replacement flexible resources to replace them.

By combining EBI with an offshore windfarm it enables our newer energy production to not only be green but behave in a way that is easy to manage, thus paving the way for even more renewable energy production.



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## Onshore Export Cable Corridor Indicative Layout

The Hornsea Four onshore export cable corridor consists of an 80m wide temporary construction corridor within which a 60m permanent corridor will be located.

Electrical export cables will be installed in separate trenches within the cable corridor. Small fibre optic cables may also be buried alongside the onshore export cables to allow the various control systems to communicate with the wind farm.

