

Hornsea 4

Horizontal Directional Drilling (HDD)

All onshore cables for Hornsea Project Four will be installed by open-cut trenching and/or Horizontal Directional Drilling (HDD). When developing our proposals for the project, consideration has been given to the onshore construction methods which are employed and ways in which disturbance to the local community can be minimised.

What is Horizontal Directional Drilling (HDD)?

HDD is a trenchless drilling method used to install ducts beneath the ground through which cables from the offshore wind farm can be pulled.

The HDD process involves drilling an initial small pilot borehole through a predetermined bore path. The small pilot bore is subsequently enlarged until large enough for the ducts to be pulled through. HDD provides minimum disturbance to the surrounding area and is a less intrusive method than the more commonly used open-cut trenching.

Where will HDD be carried out?

Hornsea Four have prepared an Onshore Crossing Schedule that outlines the techniques that will be deployment at crossing points along the onshore export cable corridor, onshore substation, and at landfall. The locations of all HDDs are presented in **Volume 4, Annex 4.2: Onshore Crossing Schedule**, which accompanies our Preliminary Environmental Information Report.

We have made a commitment to cross all main rivers, Internal Drainage Board (IDB) maintained drains, main roads, railways and major underground utility assets by HDD or other trenchless technology as set out in the Onshore Crossing Schedule.

The impacts on major watercourses from construction activities involving the use of HDD techniques are minimal. On account of the nature of the technique, the method ensures that there is no interaction between the works and the watercourse to be crossed.

It may be the case that HDD is not possible or preferred at certain locations (due to ground conditions, cable design, or other factors), in which case open cut techniques would be required to install the cables. It may also be the case that a combination of these two methodologies may be utilised. This will be determined in consultation with the relevant stakeholders.

Open-cut crossings could range from smaller drains, roads, water, gas and other utility infrastructure. Open-cut crossings are also detailed in the Onshore Crossing Schedule.

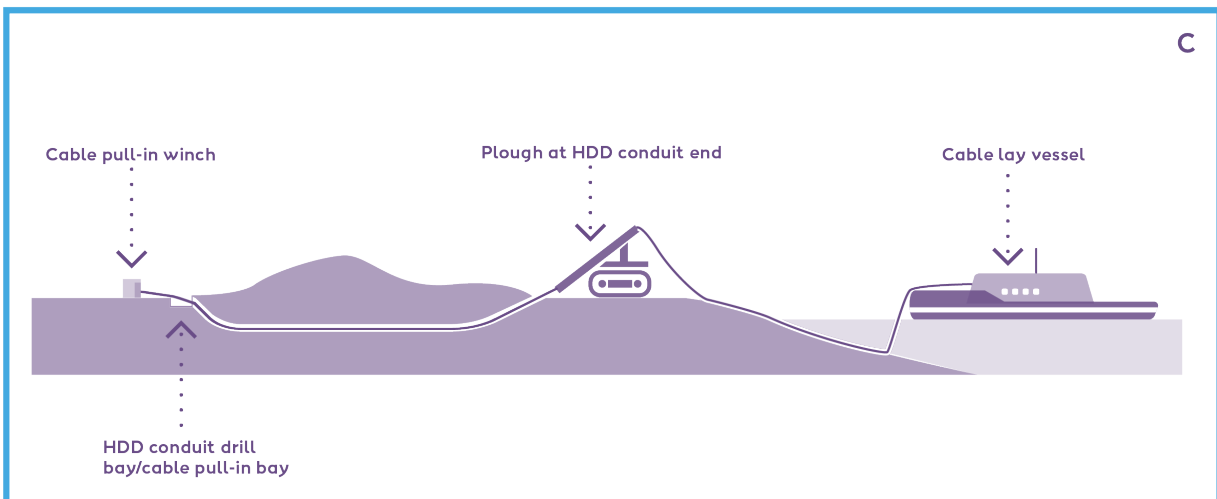
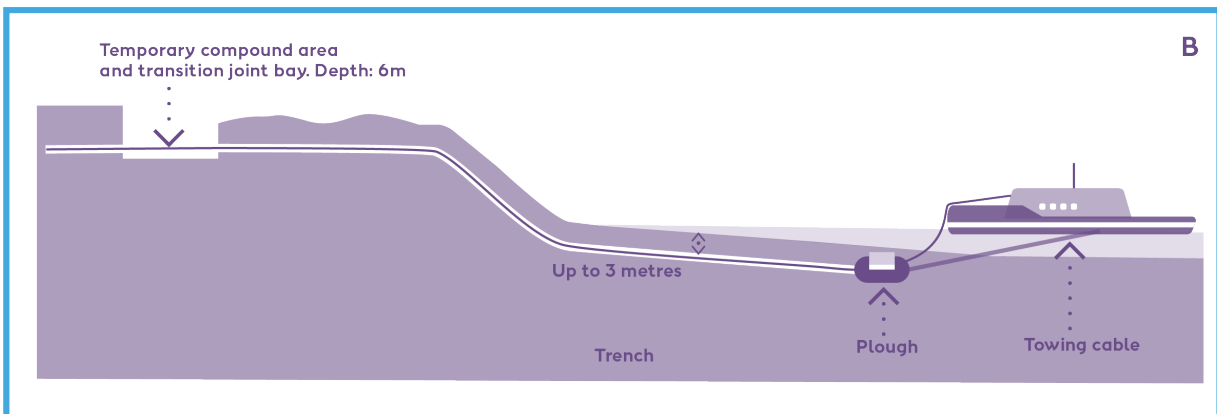
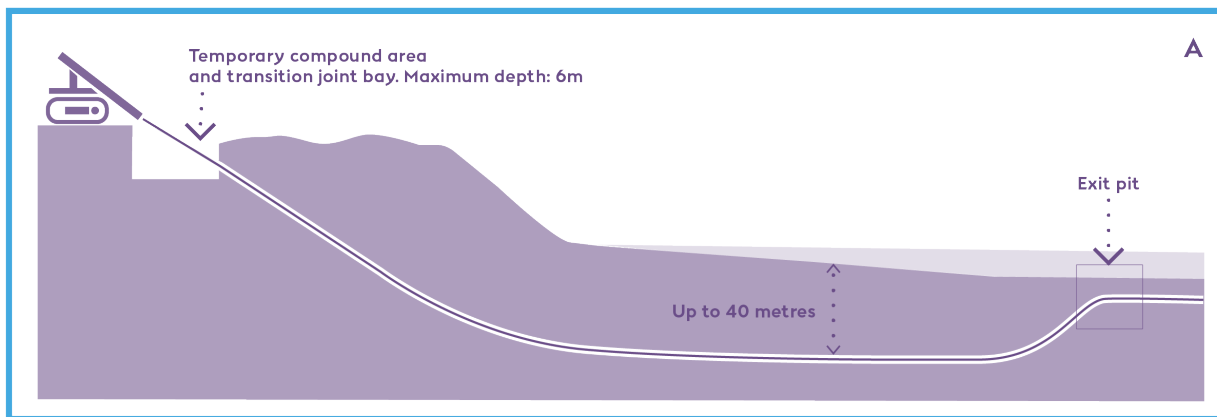
Installation of onshore cables

During installation of the onshore cables, the topsoil will be stripped on site within the temporary working corridor and stored in stockpiles. The trenches will then be excavated using a mechanical excavator, and the export cables, or ducts to contain the cables, will be installed into the open trench. The cables or ducts are then buried by backfilling the trench with the excavated material before the land is reinstated to its previous condition.

Construction at landfall

The preferred option will be to use a trenchless drilling technique (such as HDD) to install a number of ducts under the beach through which the offshore cables are pulled to the landing site onshore. However, it may be the case that this not possible (e.g. due to ground conditions), in which case open cut techniques would be required. A logistics compound will be required during construction and this will be located immediately landward of the beach.

Below are indicative arrangements for HDD and open cut installation techniques.



More information on this can be found in Preliminary Environmental Information Report (PEIR) and accompanying Non-Technical Summary, which can be found at: <https://hornseaprojects.co.uk/Hornsea-Project-Four/Documents-Library/Formal-Consultation>

Hard copies of the non-technical summary are also available at today's local information event.