

## Connection Point

The network connection point is the 220kV ESB substation at Knockraha.

## HVAC Land Cable

The circuit between the network connection point and the converter station will be HVAC underground cable.

## Converter Station Ballyadam, Carrigtohill

High Voltage Direct Current (HVDC) technology is the global standard for the transfer of electricity over long distances where underground/subsea cables are required. The national transmission grids in Ireland and France both use High Voltage Alternating Current (HVAC) to transmit electricity to where it is needed and therefore converter stations are required at both ends of the interconnector. Electricity will be converted at the converter station from HVAC to HVDC for export of electricity to France, and vice versa from HVDC to HVAC for import of electricity from France. The converter station requires an industrial type building and outdoor compound with typical approximate dimensions of 300 m x 150 m and an approximate height of up to 25 m.

## HVDC Land Cable

The circuit between the converter station and the landfall point will be made by HVDC underground cable installed in ducts under the existing road network, with underground cable joints approximately every 1 km along the route. The total length of the HVDC Land Circuit is approximately 40 km. It will run from Claycastle Beach, on the N25 towards Midleton. It will run on agricultural land around the villages of Killeagh and Castlemartyr and on local roads to the north of Midleton to enter Ballyadam from the Carrigogna Road.

## Project Overview

The Celtic Interconnector will enable the transfer of electricity between Ireland and France. A fibre optic cable will also be installed, facilitating enhanced telecommunications capacity with continental Europe. The main elements of the proposed infrastructure in Ireland are illustrated in this graphic and described in further detail below.

## Landfall Point Claycastle Beach, Youghal

This is where the HVDC land circuit will connect to the HVDC submarine circuit by way of a transition joint which would be installed underground behind the beach where the submarine circuit comes ashore. The landfall point will be fully re-instated following completion of the installation works.

## Submarine Circuit

The HVDC submarine circuit will be laid between Ireland and France across a distance of approximately 500 km, either buried beneath the seabed or where burial is not possible it will be laid on the seabed and covered in order to protect the cables.

To France