

Onshore Key Infrastructure

The onshore infrastructure includes a substation and onshore cables. The onshore cables run from the landfall site(s) to the onshore substation and subsequently to the point of connection at the SSEN Netherton Hub substation.

Onshore cables

The cables will be laid underground within a cable corridor surrounded by a wider, temporary corridor for construction works. Any land disturbed during construction will be reinstated once the cables are installed. It is expected that the width of these temporary corridors will be approximately 150m, but could occasionally be narrowed to avoid obstacles, such as buildings or natural features, or restricted land or to reduce any environmental effects. There may be some locations where the corridor is widened to allow sufficient space for access, avoidance of obstacles and certain construction requirements.

Points of access will be required for maintenance of the cables during operation.

Onshore substation

The onshore substation is a key part of the project's transmission system. This is the point where the voltage level of the electricity generated by MarramWind is transformed to the voltage level required for the national grid.

The onshore substation infrastructure will comprise of outdoor and/or indoor high voltage electrical equipment (e.g. transformers, switchgear and, if necessary, equipment to convert HVDC into HVAC).

A transformer is electrical equipment that helps change the level of electricity voltage. Switchgear is electrical equipment that helps connect and disconnect the circuits from the electricity network.

Indoor equipment will be installed in a warehouse style building or several smaller buildings. Work is ongoing to identify the best technical and environmental solutions, which will determine final equipment requirements and the size of the substation.

The permanent operational footprint of the substation and associated buildings could be up to 16ha. A temporary construction area of up to 4ha will also be required.

Subject to the design of the onshore substation, additional land will be required for drainage, environmental mitigation and landscaping.

Grid connection cables

These are the underground cables that connect from the project's onshore substation to SSEN's Netherton Hub substation. SSEN's Netherton Hub substation does not form part of the MarramWind planning application. SSEN is progressing a separate planning application for their substation, with information available on their website – www.ssen-transmission.co.uk.



Cable installation on the East Anglia Hub