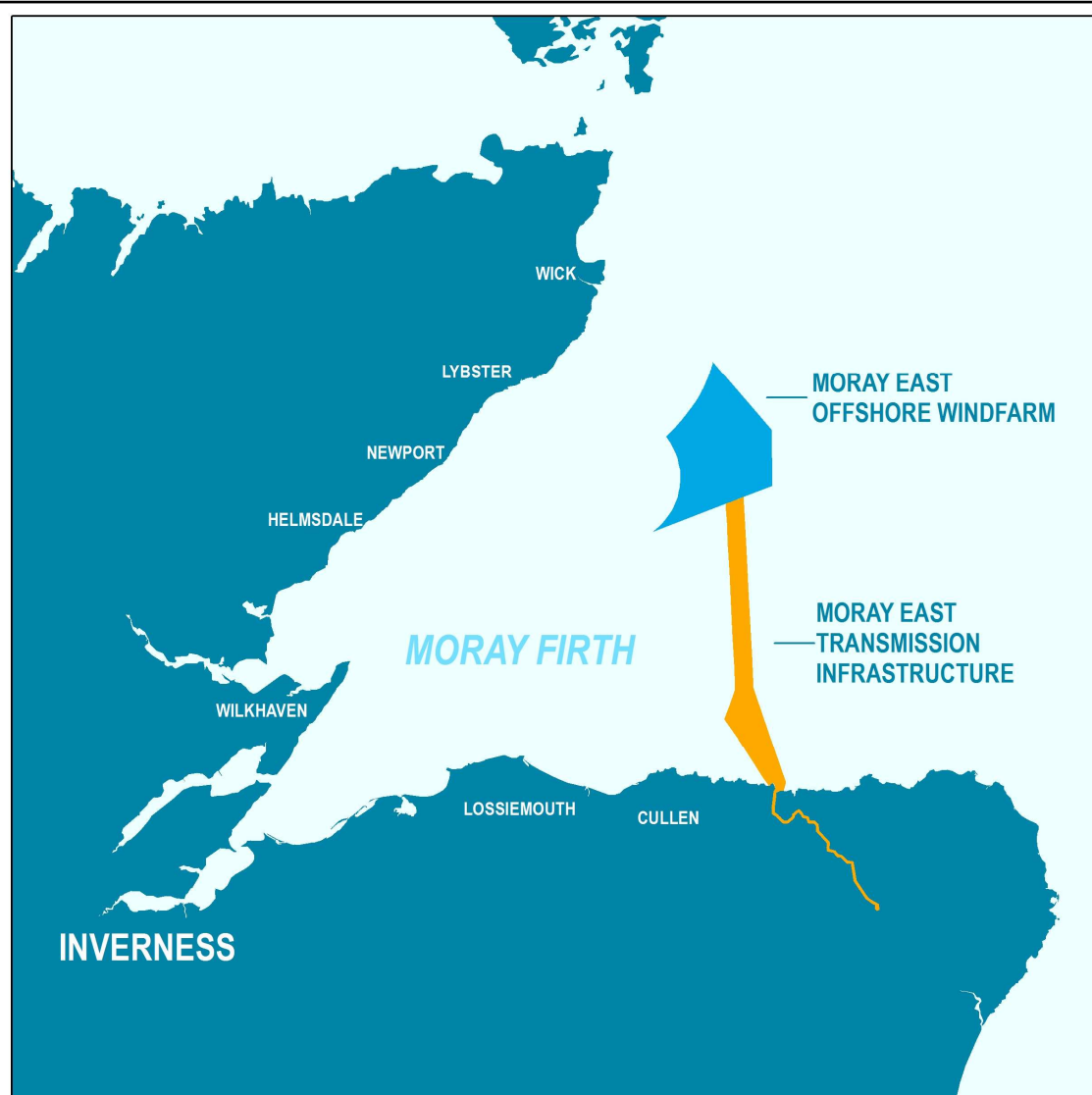


# MORAY EAST OFFSHORE WINDFARM



## Offshore Wind Generation

The UK's fleet of conventional power stations is reaching the end of its operational life. Many coal fired stations, built in the 1960s and 70s have already closed and most of the remaining nuclear power stations are scheduled to close in the coming decade.

To keep the lights on, new generation is required. By building turbines in deeper water, more than 14 miles from the coast, an excellent, wind resource can be harnessed, providing indigenous low cost, low carbon power.

Moray East has been in the vanguard of cost reduction, and will produce electricity at 5.75p per kWhr, compared with ca. 15p per kWhr for comparable offshore windfarms which have been installed around the UK in recent years.

## About Moray East

Moray Offshore Windfarm (East) Ltd - known as 'Moray East' is a 950MW offshore windfarm, which will be constructed in the outer Moray Firth, more than 40 km from the Aberdeenshire coast. With 100 turbines, it will be capable of meeting the average needs of more than 950 000 UK homes.

In 2017, Moray East was awarded a contract to supply electricity at 5.75p per kWhr - almost 40 per cent less than the cost of new nuclear generation.

Power generated offshore will be brought to the UK's national grid via underground cable circuits which will be buried beneath the sea bed, coming ashore beneath the Aberdeenshire coast, and continuing underground to a new substation on the existing transmission infrastructure at New Deer.

**MORAY EAST**  
**OFFSHORE WINDFARM**

Moray Offshore Windfarm (East) Limited,  
144 Morrison Street, EDINBURGH EH3 8BX



# MORAY EAST

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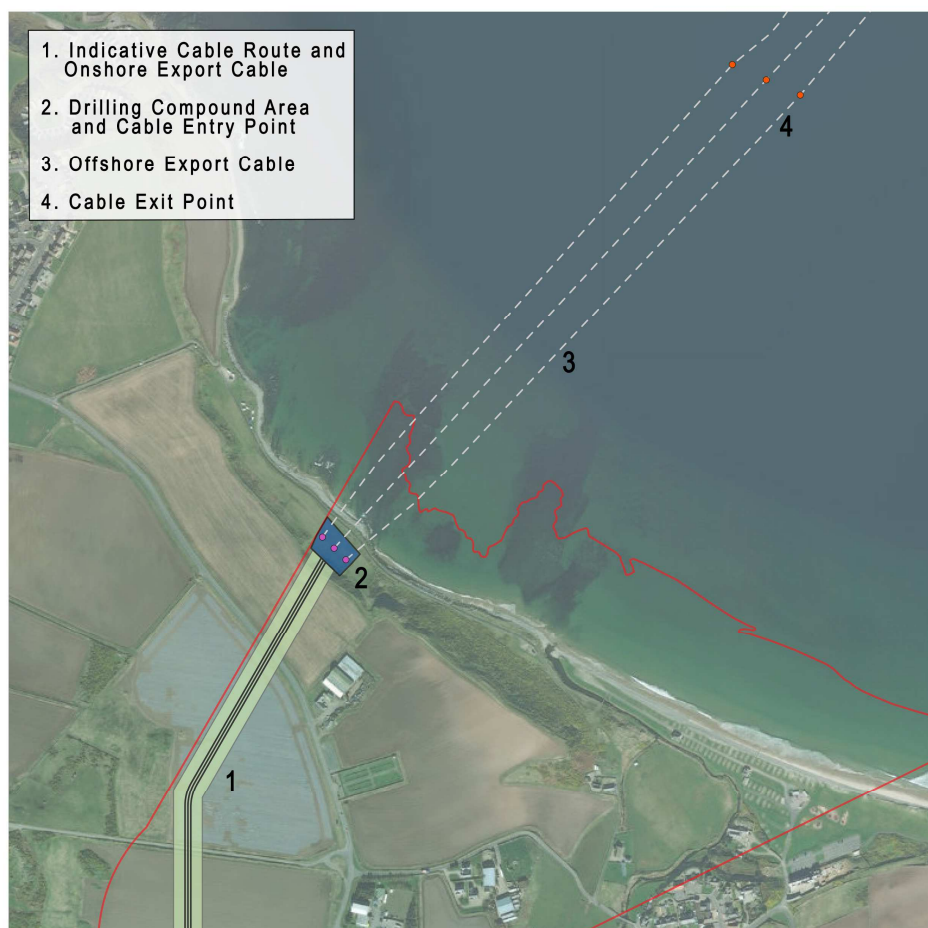
### Works At Cable Landfall Site

In order to enable the power generated by turbines out at sea to be used by homes and industry, it requires to be brought ashore. This will be done by means of subterranean electricity cables which will be installed beneath the sea-bed and beneath the land onshore, connecting to a new electricity substation south of New Deer. The point at which the cables transition from beneath the sea-bed to beneath the land will be at the cable landfall site.

The infrastructure will be below ground, and once work is complete, there will be no obvious indication of the newly installed technology which is transporting the energy to supply homes and business with power.

### Site Selection

Initially, a wide area was examined for the offshore export cable landfall to enable final site selection to be undertaken with due regard to technical, environmental and local sensitivities. The landfall site is located outwith the settlements of Whitehills and Inverboyndie, lying between them both thus mitigating impacts on both.



**MORAY EAST**  
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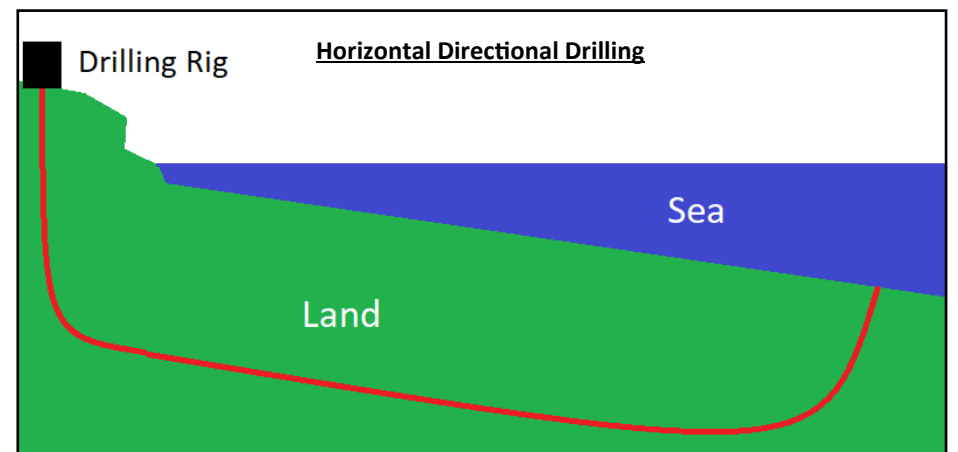
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### Installation Works

Following assessment of different options The most appropriate installation technique that has been identified for the cable landfall site is Horizontal Directional Drilling (HDD).

### Horizontal Directional Drilling

HDD involves mobilisation of a drilling rig to install ducts (one per cable circuit) followed by the cable circuits being pulled through the ducts. The offshore export cables will be installed using HDD underneath the rocky foreshore to a point well beyond the geological site of special scientific interest. From there the installation method will transition from HDD to sub-sea cable burial. To support the landfall HDD works, a construction compound will be established as illustrated, from where drilling works will take place. This will require enabling works, including provision of access, over adjacent land.



### Cable Installation

As part of the HDD process, ducts will be installed allowing cables to be subsequently pulled through the ducts from an offshore vessel.

Three underground cable jointing bays will be constructed in excavations below the surface of the land within the construction compound. This will enable the onshore underground cables to be jointed to the offshore underground cables.

### Reinstatement

Full reinstatement will be undertaken. The installation is underground so, following reinstatement, visible evidence of the infrastructure will be manhole covers which provide access to the underground cable joint bays.