



Co-ordinating and delivering EIA for offshore wind farm, including 60km onshore cable route

Norfolk Boreas Offshore Wind Farm

The Challenge

Norfolk Boreas is one of the biggest Round 3 offshore wind projects, both in terms of its size and complexity. The development area covers 725km² and is approximately 73km from the Norfolk coast at its nearest point. The proposed wind farm will have an export capacity of 1.8GW of renewable electricity, which would meet the electricity requirements for nearly two million UK households.

As Norfolk Boreas is a project for electricity generation of more than 100MW it is classed as a Nationally Significant Infrastructure Project (NSIP), so developer Norfolk Boreas Limited (owned by Vattenfall Wind Power Limited) will need to apply for a Development Consent Order (DCO). In order to provide a fully comprehensive DCO application, Vattenfall commissioned Royal HaskoningDHV (RHDHV) at the end of 2016 to co-ordinate the EIA, deliver an Environmental Statement (ES) for all offshore and onshore aspects of the project and generally provide support to the DCO application.

The Solution

The EIA requires a collaborative approach, involving 40-50 experts to manage environmental and technical risk and identify opportunities for environmental enhancement. A far-reaching range of activities includes support to extensive public consultation; development of the 'Evidence Plan' to pro-actively agree data needs and assessment methods with key stakeholders; terrestrial

surveys and analysis; impact assessments as required under the EIA and HRA regulations; noise and vibration assessment; air quality and emission assessment; transport access studies and traffic impact assessment; marine physical processes analysis; benthic ecology assessment; marine mammals assessment; subcontractor management (Landscape and visual assessment, archaeological data analysis, commercial fisheries, ornithology, shipping and navigation, aviation and onshore and marine surveys); GIS and data management; Environmental mitigation, management and monitoring advice; delivery of Scoping Report, Preliminary Environmental Information Report (PEIR), Environmental Statement (ES) and Non-Technical Summary (NTS); and production of many other plans and certified documents required to support the DCO application.

Due to its size, the onshore aspects of the EIA are particularly complex, involving infrastructure that will be installed within a 60km cable route that weaves its way across Norfolk, spanning three different local authorities, whilst negotiating settlements, protected sites, water bodies and many other constraints.



The Outcome

Norfolk Boreas is closely linked with another Round 3 development, Norfolk Vanguard, which is around 12 months further on in its development process. If Norfolk Vanguard and Norfolk Boreas are both constructed they would share infrastructure. Strategic co-location of onshore infrastructure (landfall, cable corridor, substation infrastructure and grid connection point) helps to maximise opportunities and to eliminate, reduce and mitigate potential impacts. Norfolk Boreas offshore cable corridor is 226km² and 97% of its area is shared with Norfolk Vanguard. From landfall to the onshore project substation, all of the onshore cable route is shared.

However, as consent of Norfolk Vanguard has not yet been granted, the EIA for Norfolk Boreas has to take account of two scenarios, firstly the scenario where Norfolk Vanguard proceeds to construction and secondly where it does not. This adds a complexity to the project and the RHDHV team is required to assess a multitude of different impacts, while ensuring that the project can be completely autonomous if necessary. Fortunately, RHDHV has an unparalleled level of technical expertise in consenting offshore wind, able to handle multiple aspects of a project in-house, regardless of its scale and complexity.

In brief:

- Logistical challenge
- Co-ordination and delivery of EIA and other DCO documents for offshore and onshore
- Consenting and planning advice
- Support to public and regulator consultation
- Multi-disciplinary expertise
- Intricately detailed work for two different scenarios