

MULBARTON PARISH COUNCIL
Offshore wind farm infrastructure
Impacts and alternatives

18th February 2022

Introduction

This discussion paper provides a short summary of the potential impact of offshore wind projects across the county of Norfolk, in the context of the need for renewable energy, and the availability of alternatives. It mainly consists of maps and is for illustration purposes only.

Maps 1 to 7 show the proposed landing points, cable routes, haul roads and substations in the event that radial or point-to-point grid connections are used. Map 8 shows the point-to-point connections in relation to the onshore electricity transmission grid in the East of England. Map 9 illustrates an alternative grid connection scheme using offshore transmission.

This is not a question of striking a balance between local interests and the need for climate change mitigation. All of the arguments point in the same direction: bringing all the offshore wind energy ashore in Norfolk is unlikely to be the right answer.

Maps

- 1 Onshore transmission across Norfolk
- 2 Hornsea Three with DEP & SEP at Weybourne
- 3 Vanguard and Boreas at Happisburgh
- 4 Construction traffic at Oulton and Cawston
- 5 Vanguard and Boreas at Necton
- 6 Hornsea Three with DEP & SEP at Swardeston
- 7 Hornsea Three from Swardeston to Bramford
- 8 Point-to-point connections
- 9 Offshore transmission

References

1. IOTP (East) feasibility study report. National Grid and the offshore wind industry. August 2015.
2. Network Options Assessment. National Grid ESO. January 2020, 2021 and 2022.

Disclaimer

This discussion paper has been produced on a best efforts basis without professional support and is for illustration purposes only. Details and interpretations may not be accurate and should not be relied upon. Please check with the relevant projects and authorities for the latest information.



1 Onshore transmission across Norfolk

The export cable route for both Vanguard and Boreas would be from a landing point at Happisburgh across to Necton, whilst Hornsea Three and DEP & SEP would run from Weybourne to Swardeston. The cable routes for all of the projects would cross over near Cawston, with another crossover point on the A47 to the west of Easton. Each cable corridor would be completely stripped of vegetation for a width of between 35m and 100m depending upon the type of construction work being carried out.

The main construction compounds for Hornsea Three, and also for Vanguard and Boreas, would be just north of Cawston. The DEP & SEP compound would be at Attlebridge on the A1067. Construction equipment and materials would be delivered to these compounds from the ports, and then distributed firstly using local roads, and then over the haul roads that would be built along each of the cable routes.

In addition to the onshore substations, construction compounds and haul roads, there would also be major traffic displacements in the same area due to the proposed north-west extension of the NDR to the A47, the dualling of some sections of the A47, and reconstruction of the Thickthorn Junction (A47/A11).

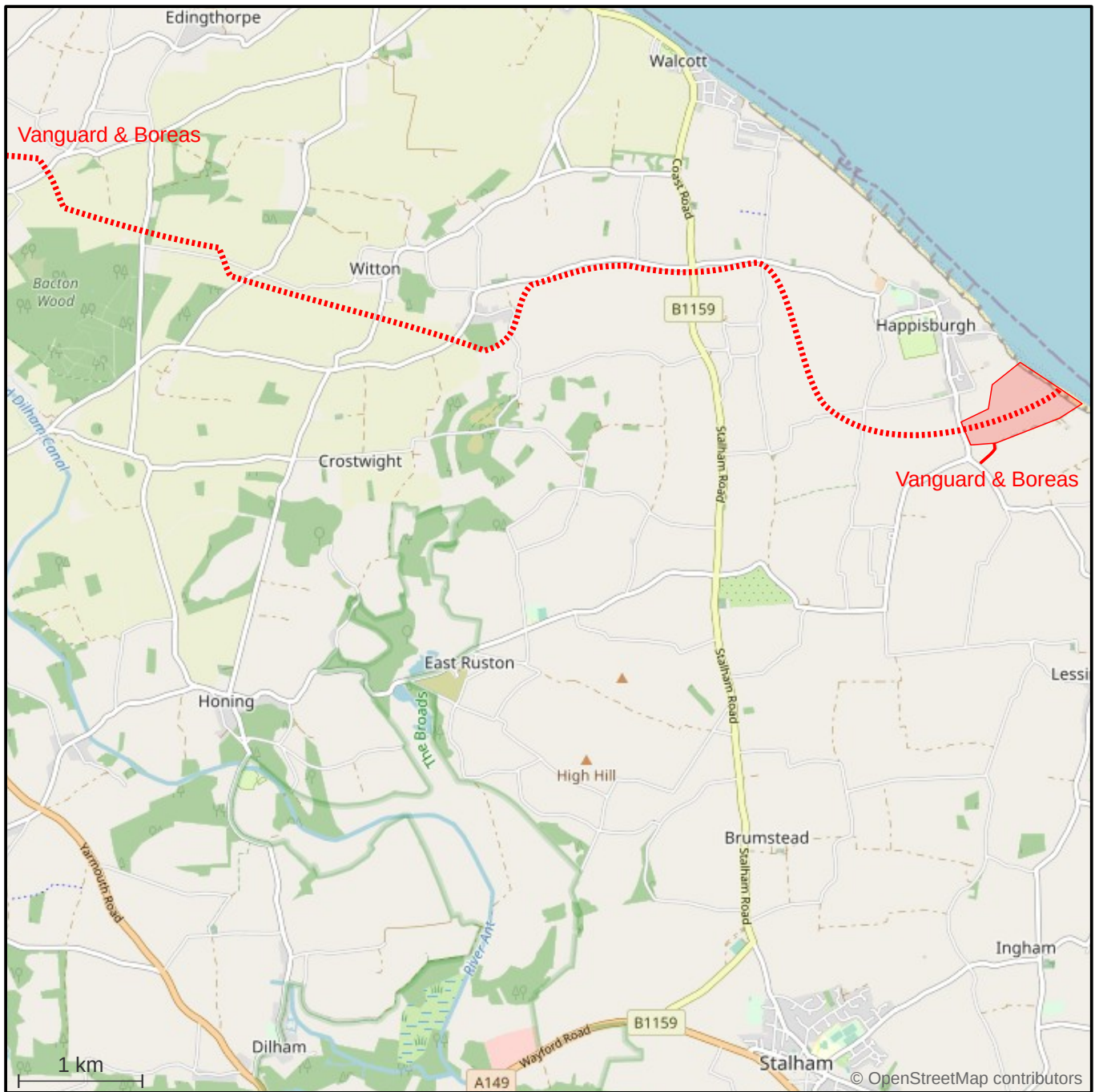


2 Hornsea Three with DEP & SEP at Weybourne

Two separate haul roads and cable trenches would be constructed just a few miles apart from each other from Weybourne across Norfolk to new substations that would be built at Swardeston, potentially displacing other traffic onto smaller local roads.

The coastline and adjoining areas would be severely affected by the export cable landing points and the steady flow of heavy goods vehicle traffic, first to clear the cable corridors of trees and hedges, and then constructing, accessing and removing the haul roads. There would be no re-planting over the cable routes and access for maintenance and repairs would be required on a permanent basis.

Both Hornsea Three and DEP & SEP may be built in two phases spread out over a number of years.

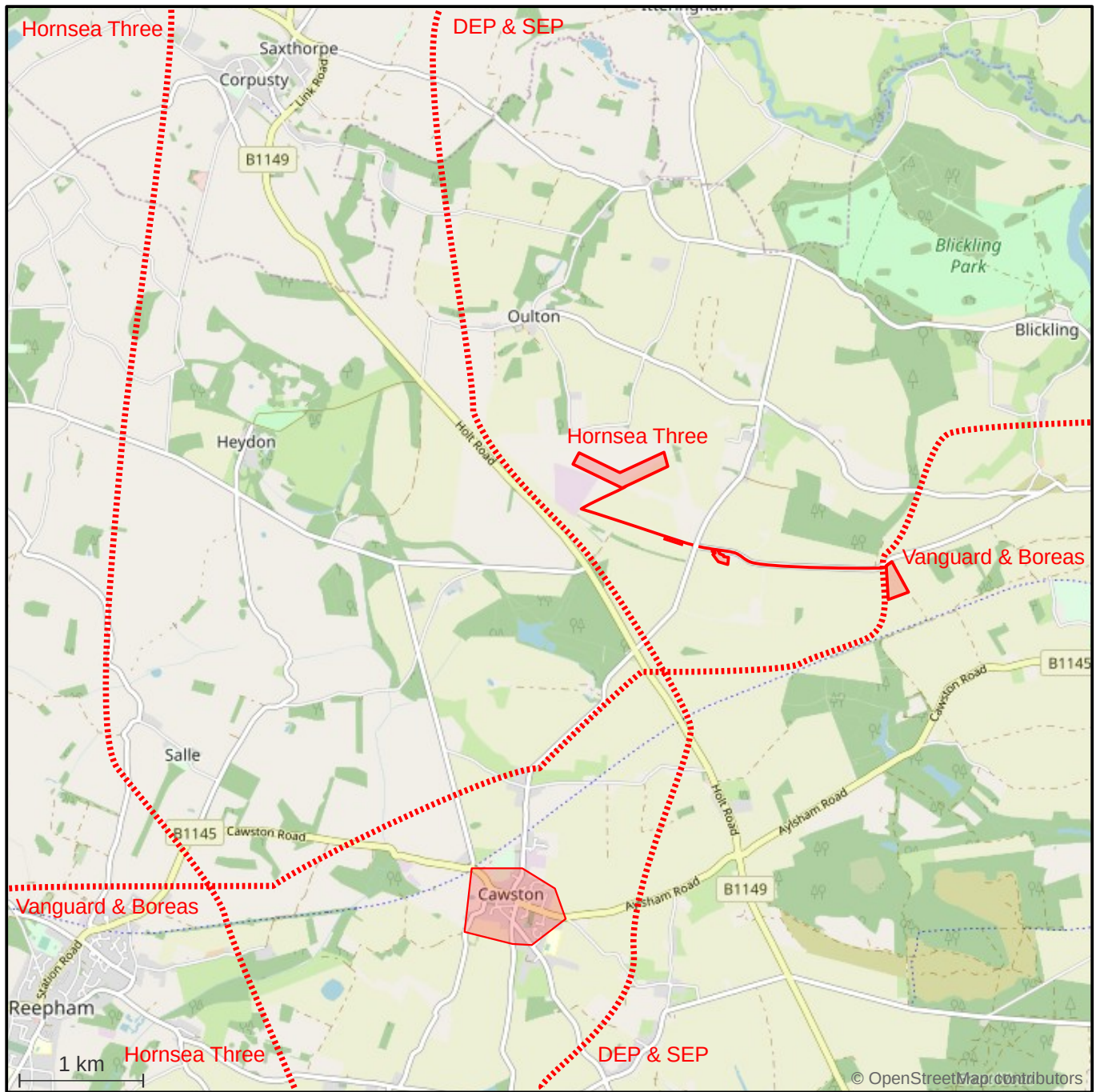


3 Vanguard and Boreas at Happisburgh

The coastal region at Happisburgh, both onshore and offshore, is already very fragile and would be badly affected by construction of the export cable landing point and the haul road across to Necton.

There would be disruption due to heavy goods vehicle traffic constructing, using and then removing the haul road, as well as the delivery of cable drums and other construction equipment. This would lead to displacement of other traffic onto smaller local roads in the area, all the way across Norfolk to Necton.

Norfolk Vanguard and Boreas may be built as two separate projects over a period of several years.



4 Construction traffic at Oulton and Cawston

The proposed Orsted compound to the south of Oulton would be used by the whole of the Hornsea Three project from Weybourne down to Swardston. Equipment and materials brought in from deep sea ports, such as Felixstowe, would be brought here for distribution across the cable route and haul road.

Vattenfall's Cable Logistics Area, also near to Oulton, would be used in the same way throughout the period of construction for the Vanguard and Boreas projects. Cawston would be surrounded by the haul roads for all of the offshore wind projects, with two crossing points just to the north. The Hornsea Three and DEP & SEP cable routes would then cross over again further south, near the A47 at Easton.

A steady flow of heavy goods vehicle construction traffic would try to make its way in both directions along Cawston High Street – barely 5m wide at its narrowest point – for the duration of all the offshore wind projects taken together, leading to prolonged displacement of other traffic onto smaller local roads.