

Norfolk Boreas Offshore Wind Farm Onshore Project Substation Masterplan

DCO Document 8.27

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Author: Royal HaskoningDHV

Photo: Ormonde Offshore Wind Farm

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1 ONSHORE PROJECT SUBSTATION MASTERPLAN

1.1 Onshore Project Substation Masterplan Principles

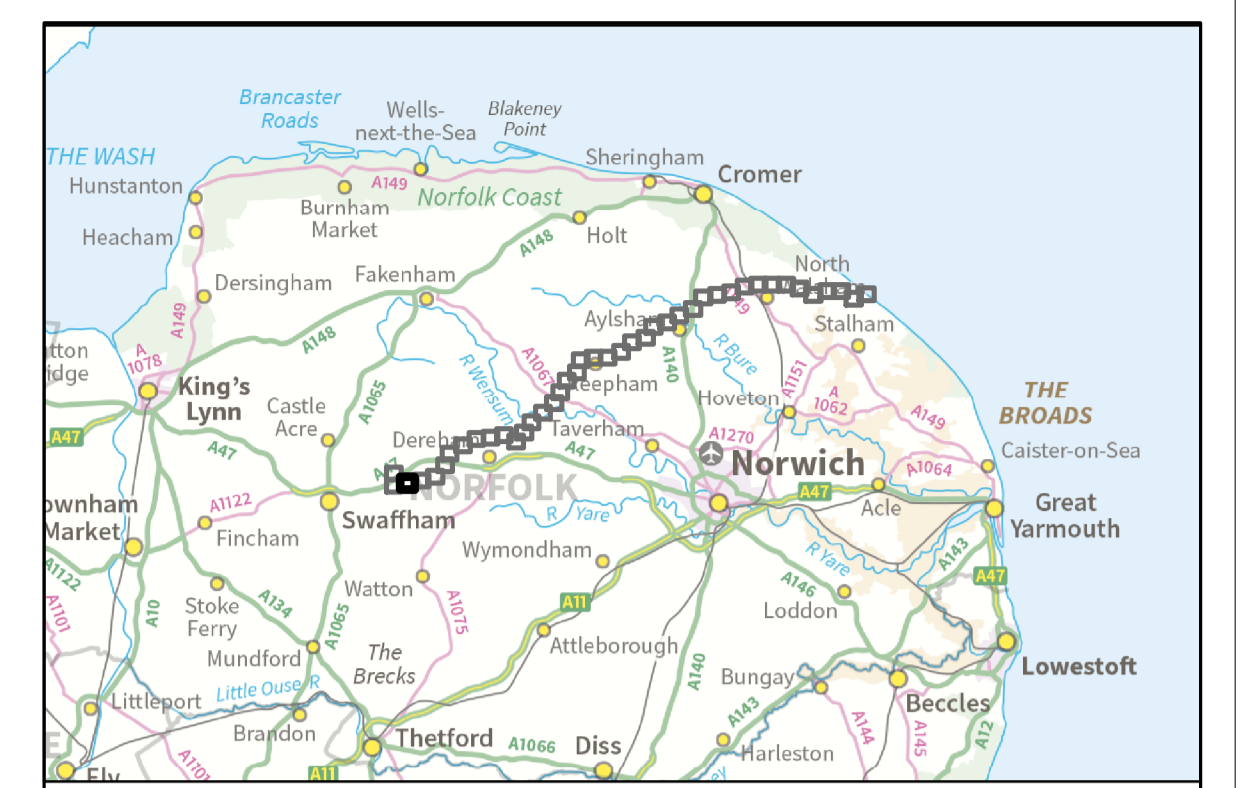
1. The Norfolk Boreas and Norfolk Vanguard Design and Access Statements (DAS) (DCO document 8.3; Norfolk Boreas REP14-014 and Norfolk Vanguard APP-027 respectively) outline the design principles which will be adhered to in developing the detailed design of the onshore project substations for both projects. Building on these principles, under Norfolk Boreas Scenario 1 the design and development of the onshore infrastructure and associated landscaping will be considered holistically for Norfolk Vanguard and Norfolk Boreas Scenario 1 in line with the principles listed below and presented on the Onshore Project Substation Masterplan drawing PB5640-009-016-003.
 - Continued commitment to co-location of onshore project substation infrastructure to keep these developments contained within a localised area.
 - Zoning of the onshore project substation footprint to locate the convertor buildings in the northern zone of the onshore project substation footprints.
 - Strategic approach to landscaping to minimise visual effects, both alone and cumulatively. Each project will have their own planting scheme however they will continue to be designed to work together to enhance landscape character and bio-diversity in the local area.
 - Locally specific landscape mitigation measures will be developed considering how the infrastructure of the onshore project substations can be collectively integrated into the existing rural landscape.
 - Consideration of reuse of earthworks generated as part of level change across both projects to maximise the efficient use of earthworks generated material in a co-ordinated way, as well as to maximise opportunities for a holistic approach to landscaping.
 - The Design Guide (as detailed in the DAS, REP14-0014) will take a holistic approach by presenting details of the onshore project substations for both projects. It will set out a design approach and mitigation measures which can be applied across both onshore project substations to minimise the impacts of the onshore project substations alone and cumulatively.
 - The detailed design of both onshore project substations will integrate embedded mitigation in order to minimise potential effects on landscape character and visual amenity alone and cumulatively. Embedded mitigation will consider the

detailed design of the built features, including the colour and finish of the materials for the converter buildings. It will also include the detailed design of the landscape features, including tree, hedgerow and grassland planting, earthworks, water attenuation ponds and drainage, and how these are integrated to form a robust co-ordinated landscape framework across both projects.

2. Adherence to these principles will ensure that the effects of both projects, both alone and cumulatively, are being mitigated through the detailed design of the onshore substations and associated landscaping using a co-ordinated approach.

1.2 Onshore Project Substation Masterplan

3. Drawing PB5640-009-016-003 presents a masterplan of the proposed infrastructure for Norfolk Vanguard and Norfolk Boreas Scenario 1 onshore project substations. It shows the co-location of infrastructure, zoning of the onshore project substation footprints and how the indicative landscaping proposals have been designed to work together across both projects and with existing landscape features.
4. The onshore project substations design and landscape schemes will be further refined as part of the detailed design process in accordance the principles of the OPS Masterplan. The indicative hard and soft landscaping will be developed holistically alongside the detailed design of the substations in order to optimise the level of mitigation that the landscaping will provide, for the projects alone and cumulatively.



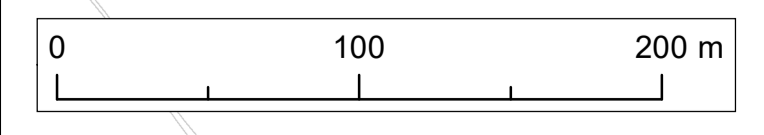
- Legend:**
- Combined Norfolk Boreas Scenario 1 and Norfolk Vanguard Order Limits
 - Norfolk Boreas Scenario 1 and Norfolk Vanguard Onshore Cable Route Areas
- Norfolk Boreas Scenario 1**
- Onshore project substation
- Onshore project substation zones***
- Northern zone – Zone containing the converter buildings, control buildings and outside electrical equipment
 - Southern zone - Zone containing outside electrical equipment
- Norfolk Vanguard**
- Onshore project substation
- Onshore project substation zones***
- Northern zone – Zone containing the converter buildings, control buildings and outside electrical equipment
 - Southern zone - Zone containing outside electrical equipment
- Existing vegetation**
- Existing woodland
 - Existing hedgerow
- Indicative Landscaping Proposals**
- Proposed core woodland
 - Proposed nurse woodland
 - Proposed understorey planting
 - Proposed species rich grassland
 - Proposed hedgerow
 - Indicative attenuation pond
 - Area to be clear of landscaping obstruction
 - Shared permanent access route
- * Both zones may also contain fencing, access roads, hardstanding and below ground systems such as drainage and earth systems.

Project: **Norfolk Boreas Offshore Wind Farm** Report: **Development Consent Order**

Title: **Norfolk Vanguard and Norfolk Boreas Scenario 1 Onshore Project Substation Masterplan**

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02	22/06/2021	JT	CD	A1	1:2,500

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