



Norfolk Boreas Offshore Wind Farm Clarification Note Temporary Structures

Applicant: Norfolk Boreas Limited Document Reference: ExA.AS-9.D2.V1 Deadline 2

Date: December 2019 Revision: Version 1

Author: GHD / Royal HaskoningDHV

Photo: Ormonde Offshore Wind Farm





Date	Issue No.	Remarks / Reason for Issue	Author	Checked	Approved
10/12/19	01F	First version for Deadline 2	AH/CD	VR/JL	JL







Table of Contents

1	Introduction	4
2	Details of Mobilisation Areas	4
3	Parameters considered in the Environmental Statement	5





Glossary of Acronyms

dDCO	draft Development Consent Order
ES	Environmental Statement

Glossary of Terminology

Ducts	A duct is a length of underground piping, which is used to house electrical and communications cables.
Mobilisation area	Areas approx. 100 x 100m used as access points to the running track for duct installation. Required to store equipment and provide welfare facilities. Located adjacent to the onshore cable route, accessible from local highways network suitable for the delivery of heavy and oversized materials and equipment.
Mobilisation zone	Area within which a mobilisation area would be located.
Onshore cables	The cables which take power and communications from landfall to the onshore project substation
Onshore cable route	The up to 35m working width within a 45m wide corridor which will contain the buried export cables as well as the temporary running track, topsoil storage and excavated material during construction.
Onshore infrastructure	The combined name for all onshore infrastructure associated with the project from landfall to grid connection.
Onshore project area	The area of the onshore infrastructure (landfall, onshore cable route, accesses, trenchless crossing zones and mobilisation areas; onshore project substation and extension to the Necton National Grid substation and overhead line modifications).
Onshore project substation	A compound containing electrical equipment to enable connection to the National Grid. The substation will convert the exported power from HVDC to HVAC, to 400kV (grid voltage). This also contains equipment to help maintain stable grid voltage.
Workfront	A length of onshore cable route within which duct installation works will occur, approximately 150m.





1 Introduction

- 1. The purpose of this clarification note is to provide clarity on the temporary structures to be contained within the temporary mobilisation areas including their height, scale and duration of installation and how they have been considered in the Environmental Statement (ES). This note has been prepared in response to Action 9 of the Action Points (EV3-005) following Issue Specific Hearing 1 on the draft Development Consent Order (dDCO) held on 13th November 2019 as requested by the Examining Authority.
- 2. The mobilisation areas along the onshore cable route are shown on ES Figure 5.4 (APP-268). MA1b to MA11 will only be used for duct installation under Scenario 2 and are not required under Scenario 1. MA1b located at the Spicer's Corner junction of the A47, shown on ES Figure 5.5 (APP-269) and ES Figure 5.6 (APP-270), will be utilised during the construction of the onshore project substation and therefore is required under both Scenario 1 and Scenario 2.
- 3. These mobilisation areas are located to be accessible from the local highways network and suitable for the delivery of materials and equipment. Each mobilisation area would serve one or two workfronts and are evenly distributed along the onshore cable route length as far as possible. A series of desk based studies and site visits have been used to identify the locations for the mobilisation areas and termed 'mobilisation zones,' which is an area in which a mobilisation area will be located. The locations of the mobilisation zones are secured through document 2.4 Work Plans (updated plans submitted at Deadline 1, REP1-004 to REP1-007).

2 Details of Mobilisation Areas

4. With reference to Section 5.7.2.5.1 of ES Chapter 5 Project Description (APP-218), mobilisation areas along the onshore cable route are interface points for deliveries of materials, equipment and personnel between the public highway network and the onshore cable route. Mobilisation areas will therefore be required to store equipment and materials, provide welfare and office facilities and other supporting facilities to the onshore cable route construction works. Mobilisation areas would be a maximum footprint of 10,000m² within the identified mobilisation zones, as secured in Requirement 16 (15) of the dDCO (REP1-008), they will typically be 100m by 100m, with the specific sizing and dimensions for each location based on site constraints and land boundaries. The mobilisation areas will be microsited within the mobilisation zone, taking account of accessibility to the public highway and onshore cable route, sensitive receptors and site constraints and land boundaries (e.g. avoiding existing underground or aboveground utilities, minimising unworkable/inaccessible land).





- 5. The facilities required within the mobilisation areas, such as perimeter fencing will be limited in height, typically less than 4m and temporary buildings for office, welfare and storage will be no greater than 3m. Temporary site lighting on narrow poles may however be required at higher heights for functional purposes. All site lighting will however be subject to the Artificial Light Emissions Management Plan as noted in the Outline Code of Construction Practice (REP1-018) and secured in Requirement 20 of the dDCO.
- 6. Each of the mobilisation areas along the onshore cable route could be in place for up to 2 years, during the 'duct installation' period as illustrated in Table 5.43 of ES Chapter 5 Project Description (APP-218).
- 7. However, each mobilisation area on the onshore cable route will only be required for the period of time in which the one or two workfronts operating from it have completed the duct installation for the associated cable route sections (see Figure 3a of the OTMP, (REP1-026)), at an approximate rate of 150m/week, plus mobilisation and demobilisation. In general therefore, the majority of mobilisation areas will be required for notably less than two years, typically 12 to 18 months. ES Appendix 24.22 (APP-637) provides an indicative establishment, use and demobilisation period of each mobilisation area within the wider two year assessed period.
- 8. The mobilisation area at the at the Spicer's Corner junction of the A47 (MA1a) will be utilised to support construction of the onshore project substation. Under Scenario 2 it will be established to facilitate the A47 junction improvements and construction of the onshore project substation access road. It will then be retained during the construction of the onshore project substation, for a period of up to four years covering 'primary works' and 'electrical plant installation and commissioning' as noted in Table 5.43 of ES Chapter 5 Project Description (APP-218). Under Scenario 1 the mobilisation area will be retained or reinstalled (from Norfolk Vanguard) for the duration of the construction of the Norfolk Boreas onshore project substation, also a period of up to four years as illustrated for the same activities as Scenario 2 in Table 5.39 of ES Chapter 5 Project Description (APP-218).

3 Parameters considered in the Environmental Statement

- 9. The worst-case parameters considered in the ES are specific to each topic based on their potential to influence the level of impact on the relevant receptors. Within each onshore chapter (ES Chapter 19 to ES Chapter 31, APP-232 to APP-244) the worse-case assumptions relevant to that topic are identified for both Scenario 1 and Scenario 2, in the Potential Impacts section; within the Worst Case section.
- 10. These parameters considered in the ES are based on the information provided in ES Chapter 5 (APP-218) as outlined in section 2. In terms of the mobilisation areas the





ES assumes a maximum number of 14 mobilisation areas and the maximum footprint of 10,000m² per mobilisation area. It also assumes that the mobilisation areas will be located within the mobilisation zones shown on ES Figures 5.4 to 5.6 (APP-268 to APP-270) and will comprise an area of hardstanding to allow safe storage and vehicle movements. The ES has considered that the mobilisation areas will be used and be in place for the durations outlined in section 2.

- 11. The Landscape and Visual Impact Assessment (ES Chapter 29) also makes an additional assumption that the office, welfare and storage units within mobilisation areas will be up to 3m. This would help limit the visual impact and allow, where possible, existing vegetation to screen.
- 12. Assessments have been conducted on the worst-case siting of mobilisation area compounds within the mobilisation zones. During detailed design upon appointment of a construction contractor, siting of the mobilisation areas within the mobilisation zones will be conducted. Consideration will be given to sensitively siting mobilisation areas within the zones where possible and to sensitively site equipment within the mobilisation areas to minimise impacts so far as possible. The Outline Code of Construction Practice (REP1-018) provides principles for general site operations, construction site layout and housekeeping which the final Code of Construction Practice will adhere to.