



**SCOTTISHPOWER
RENEWABLES**

East Anglia ONE North and East Anglia TWO Offshore Windfarms

Onshore Cable Route Works Programme Clarification Note

Applicants: East Anglia ONE North Limited and East Anglia TWO Limited
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Applicable to East Anglia ONE North and East Anglia TWO



Revision Summary

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01	15/12/2020	Brian McGrellis	Lesley Jamieson	Richard Morris

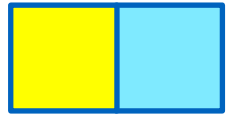
Description of Revisions

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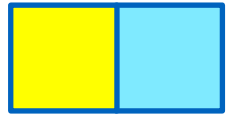
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Glossary of Acronyms

DCO	Development Consent Order
ES	Environmental Statement



Glossary of Terminology

Applicants	East Anglia TWO Limited / East Anglia ONE North Limited
East Anglia ONE North project	The proposed project consisting of up to 67 wind turbines, up to four offshore electrical platforms, up to one construction, operation and maintenance platform, inter-array cables, platform link cables, up to one operational meteorological mast, up to two offshore export cables, fibre optic cables, landfall infrastructure, onshore cables and ducts, onshore substation, and National Grid infrastructure.
East Anglia TWO project	The proposed project consisting of up to 75 wind turbines, up to four offshore electrical platforms, up to one construction, operation and maintenance platform, inter-array cables, platform link cables, up to one operational meteorological mast, up to two offshore export cables, fibre optic cables, landfall infrastructure, onshore cables and ducts, onshore substation, and National Grid infrastructure.
Onshore cables	The cables which would bring electricity from landfall to the onshore substation. The onshore cable is comprised of up to six power cables (which may be laid directly within a trench, or laid in cable ducts or protective covers), up to two fibre optic cables and up to two distributed temperature sensing cables.



1 Introduction

1. This clarification note has been prepared by East Anglia TWO Limited and East Anglia ONE North Limited (the Applicants) to clarify aspects of the East Anglia TWO project and East Anglia ONE North project (the Projects) Development Consent Order (DCO) applications (the Applications).
2. This document is applicable to both the East Anglia ONE North and East Anglia TWO DCO applications, and therefore is endorsed with the yellow and blue icon used to identify materially identical documentation in accordance with the Examining Authority's procedural decisions on document management of 23rd December 2019 (PD-004). Whilst this document has been submitted to both Examinations, if it is read for one project submission there is no need to read it for the other project submission.

2 Written Question

3. This note sets out the Applicants' response to the following Examining Authority's Written Question 1.2.70(d), which the Applicants deferred to Deadline 3:
 - **1.2.70(d):** *Please can you include the programme of works for the onshore cable route in the amended Cumulative Project Description requested in question 1.0.16.*

3 Applicants' Response

3.1 Duration

4. **Table 1** below presents a supplement to **Appendix 6.4** of the ES – **Cumulative Project Description** (an updated version has been submitted at Deadline 3, document reference 6.3.6.4), which reflects the Applicants' commitment presented within the **Project Update Note** (REP2-007), that should both Projects be consented and then built sequentially, when the first project goes into construction, the ducting for the second project will be installed along the whole of the onshore cable route in parallel with the installation of the onshore cables for the first project.



Table 1: Onshore Cable Route Construction Durations

Parameter	East Anglia TWO or East Anglia ONE North Only	Scenario 1: East Anglia TWO and East Anglia ONE North constructed concurrently	Scenario 2: East Anglia TWO and East Anglia ONE North constructed sequentially
Construction Programme	Up to 24 months	Up to 24 months	Up to 24 months for the first project Up to 12 months for the second project
Commissioning and Reinstatement Programme	Up to 6 months	Up to 6 months	Up to 6 months for the first project Up to 6 months for the second project

5. Construction of the onshore cable route along its 9km length will be up to 24 months for a single project (including the installation of ducting for the second project where applicable). This includes enabling works (such as the establishment of Construction Consolidation Sites (CCS) and haul road), the installation of cable ducts and/or cables. Commissioning and reinstatement activities will follow and are expected to be up to 6 months in duration.
6. As confirmed in the **Project Update Note** (REP2-007), should both Projects be consented and then built sequentially (Scenario 2), when the first project goes into construction, the ducting for the second project will be installed along the whole of the onshore cable route in parallel with the installation of the onshore cables for the first project. When the second project then moves into the construction phase, temporary infrastructure such as haul roads would be installed (where required) to access the works; duct integrity testing and repair would be undertaken (where required); new joint bays will be constructed along the cable route; surface water management arrangements would be established; and the pulling of electrical cables through the pre-installed cable ducts would be undertaken. Jointing of the electrical cables, backfilling of jointing bays and reinstatement would then follow.
7. In this revised (Scenario 2) sequential construction scenario, the Applicants confirm that construction of the onshore cable route for the first project, and the installation of the cable duct for the second project, will be undertaken within 24 months. Enabling works and onshore cable installation works for the second project would subsequently be undertaken within 12 months.
8. The final durations will be determined by the detailed design and construction strategy established post-consent.



9. Where the Projects are constructed sequentially, hedgerows within the onshore development area would be reinstated on completion of the first project in line with the reinstatement programme outlined in **Chapter 6** of the ES (APP-054). Where the second project is developed at a later date, whilst the cable ducts would already have been installed (during construction of the first project), the second project's interaction with hedgerows along the onshore cable route (excluding the onshore substation location) is expected to be limited to haul road construction and use.
10. On completion of the second project's onshore cable route, hedgerows would be reinstated in line with the reinstatement programme outlined in Chapter 6 of the ES (APP-054).

3.2 Indicative Onshore Cable Route Construction Sequence

11. **Plate 1** below illustrates an indicative onshore cable route construction sequence of a single project. This is illustrated to show potential key work activities, sequences and durations along the onshore cable corridor based on a ducted cable design. It does not represent an exhaustive list of activities. Haul road removal and land reinstatement may commence as shown, or may be undertaken in part, earlier in the programme depending on construction and commissioning progress.
12. As can be seen from Plate 1 below, the construction period along the onshore cable route is phased, with discrete activities being undertaken at various locations along the onshore cable route in parallel and periods of time when no construction activities are undertaken within particular sections of the onshore cable route.
13. As an example, for Cable Section 2 (west of the Sandlings SPA / Leiston-Aldeburgh SSSI to the Hundred River) a length of approximately 2.8km, Plate 1 shows the following indicative activities and durations:
 - **Enabling works:** Approximately 7 weeks activity, starting in month 3, to erect fencing, strip topsoil, and construct the temporary haul road; followed by;
 - **Limited or no construction works:** Approximately 11 weeks, starting in month 5, where limited or no constructing works will be undertaken within Cable Section 2; followed by;
 - **Construction (Ducting):** Approximately 8 weeks activity, starting in month 7, to excavate cable trenches, install ducting and backfill trenches; followed by;
 - **Limited or no construction works:** Approximately 22 weeks, starting in month 9, where limited or no constructing works will be undertaken within Cable Section 2; followed by;



- **Construction (Cable):** Approximately 13 weeks activity, starting in month 14, to excavate joint bays, install onshore cables, joint onshore cables and backfill trenches; followed by;
- **Limited or no construction works / commissioning:** Approximately 32 weeks, starting in month 17, where limited or no constructing works will be undertaken within Cable Section 2. This period includes up to 12 months commissioning of the Projects (including offshore wind turbine and onshore substation commissioning), starting in month 21 and which typically involves little or no activity along the onshore cable corridor. The Applicants will consider opportunities to reinstate the onshore cable corridor during the commissioning period where practicable; followed by
- **Site Clearance and Reinstatement:** Approximately 6 weeks activity, starting in month 25, to remove temporary infrastructure such as construction consolidation sites, welfare facilities and haul roads.

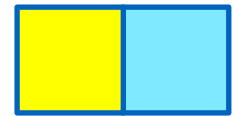


Plate 1: Illustration of Indicative Onshore Cable Route Construction Sequence and Timing

