

East Anglia ONE North Offshore Windfarm

Appendix 26.3

Abnormal Indivisible Load Access to the Proposed East Anglia TWO and Proposed East Anglia ONE North Offshore Windfarm Substation

Environmental Statement Volume 3

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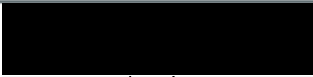
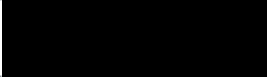


Abnormal Indivisible Load Access to the Proposed East Anglia TWO and Proposed East Anglia ONE North Offshore Windfarm Substation

Prepared for ScottishPower Renewables





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Executive Summary

This report includes information on the land and marine transport required for achieving Abnormal Indivisible Load (AIL) access to the proposed onshore substation associated with the onshore transmission works for the proposed East Anglia TWO and East Anglia ONE North substation site for Special Order movements of above 150te gross loads considerable of a transformer transport weight of 282te.

Highways England (HE) have advised that Special Order deliveries should consider the feasibility of access via Belvedere Yard, Lowestoft in line with the Department for Transport's water preferred policy for using the nearest port. They would only permit access from an alternative ports such as Felixstowe if it can be proven that Belvedere Yard at Lowestoft was not suitable for any reason.

Associated British Ports (ABP) confirmed that the preferred offloading point for heavy load delivery at Lowestoft is Belvedere Yard and there is no value in offloading on the north bank as there are no suitable heavy load routes south over Lake Loathing.

Belvedere Yard is within the ownership of Sembmarine S



Network Rail have advised that their Bridge on the A1094 (Reference ESK/B/444) is unable to accommodate the proposed loads. After further discussions, Network Rail have indicated that a more detailed structural assessment is not worth pursuing and that the only way they would consider permitting loads over this structure would be after remedial works were carried out. This would be subject to further detailed discussions if this option was to be explored further. Therefore access to the proposed substation would not be feasible at this stage from the A12/A1094 and should be discounted, with the preferred access to be via the B1122 and Leiston. This is an extension of the historical heavy load route to the Sizewell Power Stations.

Route inspections have been carried out during June 2018 and the preferred route from Lowestoft is negotiable for 20 axle girder frame trailers subject to street furniture removal at the locations indicated within this report. This is based on the new access to the site being constructed from the B1069 to the south east of the proposed development area. In the event that access was required from the B1121 at Friston, to the south west of the proposed site remedial works including third party land take would be required to enable access at the B1069 and A1094 junction.

<



1. Introduction

- 1.1. The contents of this report include land and marine transport feasibility investigations into achieving access to the proposed East Anglia TWO and East Anglia ONE North substation site for Special Order movements of above 150te gross loads as part of a future substation project.
- 1.2. This will require the construction of a new substation in the vicinity of Sizewell and Leiston, Suffolk as part of the onshore transmission works presented in Drawing No EA1N-EA2-DEV-DRG-IBR-00TBC25 provided by ScottishPower Renewables (SPR). The drawing details the indicative East Anglia ONE North development area which requires that the delivery of large and heavy electrical transformers are considered.
- 1.3. The weight of plant considered in these investigations is based on the currently assumed maximum weight of a transformer of 282te. This weight is as advised by SPR at the commencement of the project as being indicative of the size of loads likely to require delivery to the site. The weight is subject to change following the award of final manufacturing contracts but is an assumed worst case for current project planning.
- 1.4. It is expected that the heavy loads will require delivery



- The Road Vehicles (Construction and Use) Regulations 1986 (as amended)
- The Road Vehicles (Authorised Weight) Regulations 1998 (as amended)
- The Road Vehicles Lighting Regulations 1989 (as amended).

2.1.2. All equipment should be stripped of their ancillaries before they are transported. HE will only accept that further dismantling is not required where it cannot be economically achieved due to the requirement for its construction within specific factory environments or where extremely high tolerances have to be maintained.

2.2. *Legislation*

2.2.1. Conventional heavy goods vehicles have an operating weight limit of 44 tonnes. The category known as Abnormal Indivisible Loads (AIL) covers those vehicles where the gross weight exceeds 44 tonnes. An Abnormal Load is defined as that which cannot be carried under C&U Regulations. Items which, when loaded on the load carrying vehicle exceed the weights encompassed by the C&U Regulations, but do not exceed Special Order Permission Limits, are governed by Special Types General Order (ST



sought confirmation from HE as to the port of access they would require to be utilised for the delivery of transformers to the proposed substation.

- 2.4.3. It was noted at the commencement of investigations that the existing Sizewell A and B Power Stations and adjacent National Grid (NG) substations which are in the general area of the proposed substation have historically been supported with heavy load access from Lowestoft but that in early 2018 a transformer of 166te nett was transported from Sizewell to Felixstowe. It is understood this movement took place via Felixstowe as Belvedere Yard, Lowestoft, was not available at the time of movement and agreement for its use could not be secured.
- 2.4.4. In this instance, HE were provided with information based on expected road mileages of possible routes from both Lowestoft and Felixstowe based on previous heavy load movements in the region and also were provided with information specific to the responses obtained from structural authorities as part of these investigations that are discussed later in the report.
- 2.4.5. HE have advised (letter dated 20.06.18 Agreement in Principle (AIP) Reference

- 3.4. There are three haulage contractors currently operating girder frame trailers of sufficient capacity for the proposed 282te unit in the UK electricity supply industry with equipment able to carry a transformer of this weight and with





5. Marine Access

High Water Springs (MHWS) are 2.4m above chart datum. A plan of the port, including the location of Bel



- 5.2.3. Felixstowe can accommodate vessels of up to 11.5m draft on Berth No 1. subject to tidal ranges

area of the quay where loading is not permitted. It is likely that a small mobile crane (approx. 70te) will be required to install the extension ramps

specifics would be confirmed once an exact movement time and technical requirements are understood.

- 5.3.8. In summary, although there may be opportunities subject to engineering confirmation, the long term access

- 6.2.2. The height of the load will be increased by the height of the trailer and any packing that may be utilised to give a gross





load combinations specified are for highway





8. Structural Route Information



- 8.1.6. These potential costs seem excessive





management implications. The exact processes will be subject to the structural authorities previously highlighted

- 8.2.6. The comments of Suffolk Police as detailed in 6.1 should be referred to with the exact escort and traffic management requirements to



Appendix 1

Maps



Appendix 2

Drawings



