RWE Innogy UK

Triton Knoll Offshore Wind Farm Limited
Triton Knoll Electrical System

Outline Traffic Management Plan

April 2015

Document Reference: 8.9

RWE
The energy to lead

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Table of Contents

Figures

Glossary

Term	Definition
Authorised development	The development and associated development described in Part 1 of Schedule 1 (authorised development) and any other development authorised, which is a development within the meaning of section 32 of the Planning Act
Authorised project	The authorised development and the ancillary works authorised by a Development Consent Order..
Cable ducts	Conduits for the installation of cables.
Crossing Schedule	The document included at Annex 1-1 (Volume 5) of the Environmental Statement that sets out the existing features for which a commitment has been made for the cable crossing to be undertaken using a trenchless technique.
Environmental Statement	The document that sets out the results of the environmental impact assessment (EIA) for the proposed scheme.
Highway / Highway Authority	They both have the same meaning as in the 1980 Act. Highway authority for the relevant area.
IEC enabling works	In relation to Work No. 9 (in the draft Development Consent Order),site clearance; the establishment of temporary working areas; temporary fencing; the installation of construction haul roads; ground works including the installation of cabling ducting and the relocation and installation of below ground utilities and drainage; ground raising and establishment of stoned site platform.
Intermediate Electrical Compound (IEC)	The area containing a building housing switchgear, busbars, capacitors, reactors, reactive power compensation equipment, filters, cooling equipment, control and welfare buildings, lightning rods (if required), internal roads, security fencing and other associated equipment, structures and buildings including noise attenuation works.
Onshore Works	Works No. 2 to 54 (in the draft Development Consent Order) and any related further associated development in connection with those works, including, in relation to cable laying, jointing bays, manholes, marker posts and other works associated with cable laying.
Order Limits	The limits shown on the Order Limits plans within which the authorised project may be carried out.

Outline traffic management plan	The document certified as the outline traffic management plan by the Secretary of State for the purposes of this Order.
Outline travel plan	The document certified as the outline travel plan by the Secretary of State for the purposes of this Order.
Unlicensed Works	Unlicensed works are electrical works needed to connect Triton Knoll to the National Grid substation at Bicker Fen that National Grid is not required pursuant to its transmission licence to carry out itself
Relevant planning authority	The district planning authority for the area in which the land to which the relevant provision of the development applies is situated
Statutory Undertaker	Any person falling within section 127(8), 128(5) or 129(2) of the Planning Act 2008
Street	A street within the meaning of section 48 of the New Roads and Street Works Act 1991, together with land on the verge of a street or between two carriageways, and includes part of a street.
Substation	A compound containing switchgear and electrical equipment including power transformers, switchgear, reactive compensation equipment, filters, cooling equipment, control and welfare buildings, lightning rods (if required), internal roads, security fencing and other associated equipment, structures and buildings including noise attenuation works.
Substation enabling works	In relation to Work No 49 (In the draft Development Consent Order, site clearance; the establishment of temporary working areas; temporary fencing; the installation of construction haul roads; ground works including the installation of cabling ducting and the relocation and installation of below ground utilities and drainage; ground raising and establishment of stoned site platform
Temporary Construction Compound	A temporary construction site compound associated with the electrical works including hard standings, lay down and storage areas for construction materials and equipment, areas for spoil, areas for vehicular parking, bunded storage areas, areas for welfare facilities including offices and canteen and washroom facilities, workshop facilities and temporary fencing or other means of enclosure and areas for other facilities required for construction purposes.
The requirements	The necessary requirements that must be carried out by the Undertaker as part of the draft Development Consent Order.

Transition jointing bay	Houses the connection between the offshore cables and the onshore cables.
Trenchless Technique	An alternative methodology of cable installation to cross significant environmental and physical features such as main rivers, major drains, main roads and railways.
Undertaker	Triton Knoll Offshore Wind Farm Limited
Works Plan	The plan certified as the works plan by the Secretary of State for the purposes of the Order.

1 SUMMARY

1.1 This outline Traffic Management Plan (TMP) sets out the approach that will be taken by TKOWFL to manage the potential impacts of construction traffic during the construction phase of the Electrical System in accordance with draft DCO requirement 18. Section 5 sets out the key principles of a Construction Worker Travel Plan that will be promoted by TKOWFL to minimise travel by private car and single car occupancy.

1.2 The TMP sets out a number of common control measures, as follows:

- Construction vehicle routing, including proposing access routes for HGV construction traffic and temporary route signage;
- Pre and post construction surveys of minor roads;
- Temporary Construction Compounds (TCCs) and associated facilities;
- Site access, for both permanent and temporary purposes;
- Road crossings, including the control of construction vehicles and setting out the typical techniques for cable crossings;
- Abnormal loads;
- Pedestrian management along the public highway;
- Emergency planning; and
- Coordination with other developments.

2 INTRODUCTION

Overview

2.1 Triton Knoll Offshore Wind Farm Limited (TKOWFL) is submitting an application to the Planning Inspectorate (PINS), on behalf of the Secretary of State for Energy and Climate Change, for a Development Consent Order (DCO) for the Triton Knoll Electrical System (the proposed development) under the Planning Act 2008. The Triton Knoll Electrical System (TKES) would connect the consented Triton Knoll Offshore Wind Farm (TKOWF) offshore array to the existing National Grid substation at Bicker Fen, Boston.

2.2 The TKOWF is located approximately 33km (20.5 miles) east of the Lincolnshire coast. The Secretary of State granted a DCO for the TKOWF offshore array on 12th July 2013.

2.3 All terms, acronyms and abbreviations used within this outline plan are explained on first use, and / or set out in full within the Glossary appearing in the Environmental Statement (Application Document 6.2.1).

The Applicant

2.4 TKOWFL is a joint venture between two leading international energy companies; RWE Innogy and Statkraft. RWE Innogy UK Ltd is the UK subsidiary of the German renewable energy company RWE Innogy (part of RWE AG), a company with a strong and diversified position in renewable energy development. Statkraft is Europe's largest generator of renewable energy and is the leading power company in Norway.

Project Overview

2.5 The components of the TKES, which are needed to connect TKOWF to the National Grid, comprise:

- Up to six offshore export cable circuits – to transmit the high voltage alternating current (HV AC) electricity from the offshore substations to the transition joint bays at the landfall;
- Landfall infrastructure just north of Anderby Creek, Lincolnshire – including transition joint bays which house the connection between the offshore cables and the onshore cables;

- Up to six onshore export cable circuits (up to 220 kV) – to transmit the HVAC electricity from the transition joint bays at the landfall to the proposed Triton Knoll Substation via the Intermediate Electrical Compound;
- An Intermediate Electrical Compound near to Orby Marsh – to provide compensation for reactive power to allow more efficient transmission to minimise losses;
- A substation near the existing Bicker Fen National Grid Substation – to step-up the voltage to the voltage used by the National Grid and provide additional compensation for reactive power built up over the export transmission;
- Up to four onshore export cable circuits (400 kV) – to transmit the electricity from the proposed Triton Knoll Substation to the existing National Grid substation at Bicker Fen, Boston; and
- Unlicensed Works within the existing National Grid Bicker Fen substation compound comprising up to two new 'connection bays' of electrical equipment required to connect the TKES to the National Grid.

2.6 The onshore Proposed Development Boundary for the Triton Knoll Electrical System is shown on the Works Plans (Application Document 2.1 and Figure 1.1 of the Onshore Project Description, Application Document 6.2.3.1).

Purpose of this outline Traffic Management Plan

2.7 This outline Traffic Management Plan (TMP) forms part of the application for a DCO for the TKES and has been allocated document reference 8.9 by TKOWFL. Its purpose is to set out the approach that will be taken by TKOWFL to manage the potential impacts of construction traffic during the construction phase of the Electrical System in accordance with draft DCO requirement 18.

2.8 This outline TMP has been prepared following consultation with relevant stakeholders, including Boston Borough Council, East Lindsey District Council and Lincolnshire County Council.

2.9 The aim of the final TMP is to where reasonably practicable consider the following:

- Review route surveys, assessment and evaluations undertaken to date; and
- Develop within reason management measures to control numbers, types and timings of vehicle movements;

2.10 The Development Consent Order includes a requirement for a TMP to be agreed with the relevant planning authority prior to the start of the relevant phases of work. The TMP will be written in accordance with this outline TMP. Construction is to be undertaken in accordance with the agreed TMP..

2.11 TKOWFL will work with all contractors, sub-contractors and their suppliers to ensure compliance with the relevant provisions of the final TMP. These requirements will be incorporated into the construction work contracts for the onshore elements of the TKES.

2.12 TKOWFL will aim to work with the relevant planning authorities during the construction phase to monitor compliance with the provisions of the final TMP.

Scope of this outline Traffic Management Plan

2.13 This outline TMP relates to the onshore elements of the TKES for the proposed Triton Knoll Offshore Wind Farm (TKOWF), landward of Mean Low Water. This document does not relate to offshore works seaward of Mean Low Water, or any works above Mean Low Water that are principally marine activities.

2.14 This outline TMP intends to set out a preliminary series of construction vehicle management controls in one cohesive document for the onshore works and formalises any commitment made to the relevant planning authorities and statutory consultees in the Environmental Statement.

3 GENERAL PRINCIPLES

Communication of the TMP

3.1 The TMP will be available on the Project website and electronic copies provided to Lincolnshire County Council (LCC), Highways Agency (HA), District Councils and any relevant Project Liaison Groups (PLGs) and Parish Councils where necessary. TKOWFL is committed to putting in place effective communication channels, and record and act on comments, complaints or queries during the construction of the project, such as on the measures included in the TMP, raised by interested parties.

3.2 TKOWFL will establish and maintain a circulation list of key stakeholders to facilitate effective communication of periods of high activity, temporary closures/diversions and abnormal load deliveries. Details of these activities will be included on the project website.

3.3 The intention is to include the TMP in all construction contracts covering the onshore works. .

Monitoring

3.4 Each contractor will be required to comply with the final TMP. As part of a proactive approach to ensuring impacts due to construction traffic are minimised, a monitoring strategy will be implemented by TKOWFL to measure and account contractor performance against the requirements of the TMP.

3.5 In addition to proactive monitoring measures, a public information line will be implemented to allow the general public to report details of any breaches of the TMP as well as voice other general queries or complaints.

3.6 A log containing details of all vehicles and drivers entering/exiting all the site accesses will be maintained. This information will be used to monitor levels of construction traffic and help identify vehicles/drivers in the event of breaches of the TMP. HGV numbers, TMP breaches and corrective measures will be logged and regularly reported to the relevant PLGs.

4 COMMON CONTROL MEASURES

Construction vehicle routing

Access routes for HGV construction traffic

4.1 The routes for HGV construction traffic to construction access points, incorporating any specific routes or locations to avoid and any temporary speed limit orders, will be agreed with the relevant Local Authority and set out in the final TMP.

4.2 HGV traffic will use A roads wherever possible with B roads and minor roads used primarily to access the TCCs. Certain exclusions will apply in agreement with the highway authority in order to avoid congested or sensitive locations. This will include:

- Avoiding substation traffic passing through Boston;
- Using the A16 rather than the A52 around Skegness; and
- Using the IEC haul road to avoid Orby.

4.3 Figure 4.1 illustrates the road network that will be used by HGV construction traffic.

4.4 All delivery contractors and construction staff will be instructed to use the agreed construction access routes, with compliance with the agreed TMP for each stage of the onshore works being a condition of supply contracts. A log of regular drivers will be maintained, including records of agreements with organisations and the drivers to demonstrate their understanding of the prescribed access route.

Temporary route signage

4.5 Construction access routes will have temporary signs posted along the proposed routes to site accesses prior to the commencement of construction activities, with the nature and placement of signage to be agreed with the relevant Local Authority or the Highways Authority. Where multiple access points use a common road to site, signage will be clearly distinguishable between access points.

4.6 Signage will also be placed at the exit of construction site access points to instruct construction traffic to follow the designated route.

4.7 TKOWFL will review the environmental performance of the main construction contractors as part of the tender selection process.

Pre and post construction surveys

4.8 Prior to the start, and following completion, for each stage of the onshore works of the construction works, road condition surveys for minor roads will be undertaken and agreed with the Highways Authority. These surveys will inform any works that may be required to rectify specific damage to the road network as a direct result of construction work

Temporary Construction Compounds

4.9 Temporary Construction Compounds (TCCs) will be constructed to provide site facilities for the workforce and also allow plant and materials to be stored safely and securely near the works. A total of 26 TCCs will be located along the cable route, at the landfall, Intermediate Electrical Compound, Triton Knoll Substation and NGET Bicker Fen Substation.

4.10 There are 22 TCC's serving the cable route with a dedicated TCC serving the remaining key construction activities. Each cable route TCC will provide the following:

- Laydown areas;
- Car parking for small to medium vehicles;
- Parking and unloading areas for HGV's;
- Waste storage facilities; and
- Welfare facilities.

4.11 Each TCC located at the key construction sites will provide similar facilities, though with greater provision for car parking and HGV unloading areas where appropriate. In addition, they may include offices which will not only serve the adjoining construction activities but also as an administration area for the cable route.

Site Access

4.12 Details of temporary and permanent site access, including the location, layout and control measures will be set out in the Access Management Plan (AMP), to be agreed with the relevant Local Authority. An outline AMP (Application Document 8.13) is included with this application, which covers the key principles and typical layouts.

4.13 The contractors appointed to undertake the TKES works will submit the detailed design and specifications for the site access locations to the relevant authorities prior to works commencing on site as part of a final AMP.

4.14 All TCC's will have sufficient areas available at all times for all vehicles to enter in a forward gear and to be accepted directly.

Road crossings

Construction vehicles

4.15 As a primary control measure, contractors will be required to minimise the requirement to travel along the public highway between different sections of the haul road. This will be achieved where possible through the construction of haul road crossings with entry and exit points directly opposite each other.

4.16 Where such access points are required to form crossings of the public highway, suitable measures will be incorporated in the access design to ensure that the construction traffic crossing the highway is controlled for the duration of construction of that section.

4.17 A typical layout of a road crossing is contained within the outline AMP with details to be agreed with the relevant planning authority before commencement of construction as part of the AMP.

4.18 Road crossings will require control measures to ensure safe movement of construction traffic across the public highway as well as maintaining the safety of all other highway users. The TMP will include details of such measures which will include the following:

- Additional temporary signage to warn road users of heavy plant crossing the highway;
- Additional temporary traffic calming measures for highway users at the crossing point;
- Pedestrian arrangements at the crossing point;
- Extent of road-sweeping activity in vicinity of access point; and
- Frequency of monitoring of highway condition.

Cable crossing

4.19 The cable route will cross a number of public roads for which trenchless techniques will be used to install the cable ducting. Therefore, no management measures for the control of traffic will be required for this aspect of the works.

Abnormal loads

4.20 The construction of the TKES will require the delivery of a number of abnormal loads. These are expected to comprise the following types of load:

- Transformers and reactors (Substation and Intermediate Electrical Compound); and
- Cable drums, to be delivered to each TCC for onward movement along the working width.

4.21 The delivery of transformers will be small in number, though of a size that will require temporary works to accommodate the loads. All temporary works, such as removal of street furniture, will be subject to discussion with relevant authorities and form part of a delivery plan for each abnormal load. Each delivery will be planned in advance, escorted and managed such that any impacts are minimised. Such arrangements will be procured through standard processes with the relevant planning authority at the appropriate time.

Pedestrian Management

4.22 Where reasonably practicable and where it is safe to do so, TKOWFL will aim to maintain access for pedestrians along the public highway. Specific locations where pedestrian management will be required will be identified in the TMP and AMP.

Emergency planning

4.23 An emergency plan will be developed to address a possible major incident, that should wherever possible include use of “A” and “B” classified roads in order to gain access to or egress from the cable route.

4.24 TKOWFL will be required to identify a local recovery service which will be used in the event of a contractor vehicle breakdown.

Coordination with other developments

4.25 TKOWFL will ensure liaison takes place by the Principal Contractors with LCC and HA to ensure that where construction works will take place at the same time as other developments cumulative impacts will be avoided or minimised wherever practical.

5 Travel Plan

Purpose and scope of the Travel Plan

5.1 The Travel Plan provides a framework for promoting and encouraging a reduction in private car use in accordance with the National Planning Policy Framework and Planning Practice Guidance.

5.2 This outline Travel Plan is being provided in an indicative form to provide the Examining Authority and parties to the examination with an outline of the matters which will be addressed within the agreed Travel Plan for any stage of works of the TKES in accordance with requirement 18 of the DCO.

5.3 This outline plan relates to the onshore elements of the TKES for the proposed TKOWF, of which the relevant aspects are the movement of personnel to and from each TCC and how this can be achieved in the most sustainable and cost effective manner.

Site assessment

5.4 The TCC locations will be the focus of deliveries and workers for the cable route, landfall, Intermediate Electrical Compound and Substations. It is expected that a high proportion of the staff employed will either live locally or stay within the local area throughout the working week and travel home at weekends.

5.5 The length of the construction period will ensure that efficient travel patterns can be established by workers between their place of residence and the relevant TCC. Depending on their location of residence, a range of modes of travel may be available, full details of which will be provided in the agreed Travel Plan.

Package of measures

Travel Awareness

5.6 Good accurate information on the range of services and travel initiatives available at the site will be a critical element of a successful travel plan.

5.7 A Travel Plan Coordinator TPC will make new employees and sub-contractors aware of the existence of the travel plan by providing them with an information pack as part of their appointment. The information pack could include, for example, the following:

- A map showing the location of the cable route in relation to the local towns, highlighting the location of rail stations;

- Details of services that stop at Boston and Skegness rail stations, highlighting the minibus pick-up service;
- Information relating to traffic-related environmental concerns, congestion problems and car sharing to raise awareness: and
- Details of local accommodation available.

Public Transport Information

5.8 The TPC will encourage use of public transport as a mode of travel to work by implementing the following initiatives:

- Provide up-to-date public transport information, including route maps and timetables, with welcome packs and on staff notice-boards;
- Provide details of local taxi companies;
- Provide regular minibus collection and drop-off at Boston and Skegness rail stations if demand requires;
- Liaise regularly with local public transport operators to ensure that information remains valid; and
- Provide details of the websites and telephone advice services to enable staff to obtain details on their individual journey requirements, including the Transport Direct journey planner and Traveline (Tel 0871 200 2233).

Mini-bus service

5.9 The contractor may choose to provide a minibus collection service that could transport construction workers from pre-arranged points to the site. For example, these could include Boston and Skegness rail stations and the locations of local accommodation. Details of these collection points would be provided within welcome packs for all staff.

Car Sharing Scheme

5.10 The TPC will set up a car sharing scheme / register. Staff will be consulted by the TPC to allow potential car sharers to register an interest and provide details of their journey to and from work. The TPC will then identify suitable matches for staff that may be able to share their journeys to and from work.

Car Parking Management

5.11 Parking for staff, visitors and minibuses will all be contained within the TCCs. The management of car parking associated with the development will be considered alongside other initiatives to make efficient use of the TCCs. This will ensure sufficient space is available for visitors and deliveries.

5.12 The demand and supply of the car parking area will also be monitored to identify any overspill of car parking throughout the day.

5.13 To support the Travel Plan, a combination of the following measures will be implemented in order to minimise travel by car:

- Effective reduction in number of spaces compared to number of employees combined with a pro-rata reduction in parking towards the end stages of the build; and
- Provide priority spaces for mini-bus use.

Management

5.14 This Outline Travel Plan forms a framework for detailed initiatives to be drawn up between the developer and contractors once the tender process is complete. This framework will be incorporated into any agreement drawn up between the developer and contractors.

Travel Plan Co-ordinator (TPC)

5.15 Management of the Travel Plan will be achieved through the identification of a suitable person or organisation as the TPC. The TPC will provide a key role in delivering a successful Travel Plan. The TPC role could be undertaken either by the developer's project manager or a similar post within the contracting organisation.

5.16 The TPC role will be established prior to the occupation of the TCCs and will act as the fulcrum for the development of the Travel Plan measures and the day to day operation of the Travel Plan. Once appointed, the TPC will act as the main contact for the Travel Plan and will be responsible for implementing measures and monitoring the effects of implementation.

5.17 The TPC will be responsible for setting up and launching the Travel Plan in accordance with the following schedule, which will be agreed with the local authority.

Pre-construction

- Exchange contact details with relevant officers;
- Collect details of local accommodation;
- Arrange mini-bus provision; and
- Research travel information.

During construction

- Liaise with Travel Plan Officer and other groups where appropriate.