



# Triton Knoll Offshore Wind Farm Limited Triton Knoll Electrical System

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**Appendix 21: Updated Statement  
of Reasons – Revision C**

**Date: 24<sup>th</sup> February 2016**

**Appendix 21 of the Applicant's  
Response to Deadline 7**

Triton Knoll Offshore Wind Farm Limited

## Triton Knoll Electrical System

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Revision C

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Deadline 7

Date: 24<sup>th</sup> February 2016

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| Date of Approval: | 24/02/2016      |
| Revision:         | C               |

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Offshore Wind Farm Limited  
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# 1 INTRODUCTION

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## Introduction

- 1.1 This Statement of Reasons (“the Statement”) relates to an application (“the Application”) by Triton Knoll Offshore Wind Farm Limited (“TKOWFL”) to the Secretary of State for Energy and Climate Change (“the Secretary of State”), under the Planning Act 2008 (“the 2008 Act”), for the Triton Knoll Electrical System (“TKES”) Development Consent Order (“the Order”) which would grant powers to construct and operate an electrical system to connect the consented Triton Knoll Offshore Wind Farm to the national grid.
- 1.2 TKOWFL is a joint venture between two leading international energy companies; RWE Innogy UK Limited and Statkraft UK Limited. RWE Innogy UK 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 UK Limited is the UK subsidiary of Statkraft Group, Europe’s largest generator of renewable energy and the leading power company in Norway.
- 1.3 The Triton Knoll Offshore Wind Farm Order 2013 (SI 1734/2003) was made by the Secretary of State on 11th July 2013 to authorise TKOWFL to construct, operate and maintain a generating station in the sea approximately 33 kilometres off the coast of Lincolnshire, 46 kilometres off the coast of Norfolk and 48 kilometres off the nearest point on the coast of the East Riding of Yorkshire, together with all necessary and associated development. The Triton Knoll Offshore Wind Farm Order 2013 order also granted a deemed marine licence.
- 1.4 The Triton Knoll Offshore Wind Farm Order 2013 comprises the offshore array of up to 288 turbines with a maximum generating capacity of up to 1200MW together with associated intra-array cabling and up to four Offshore Substation Platforms.<sup>1</sup> The DCO application did not include associated electrical infrastructure such as offshore export cables, onshore cables, and associated substations necessary to transport power

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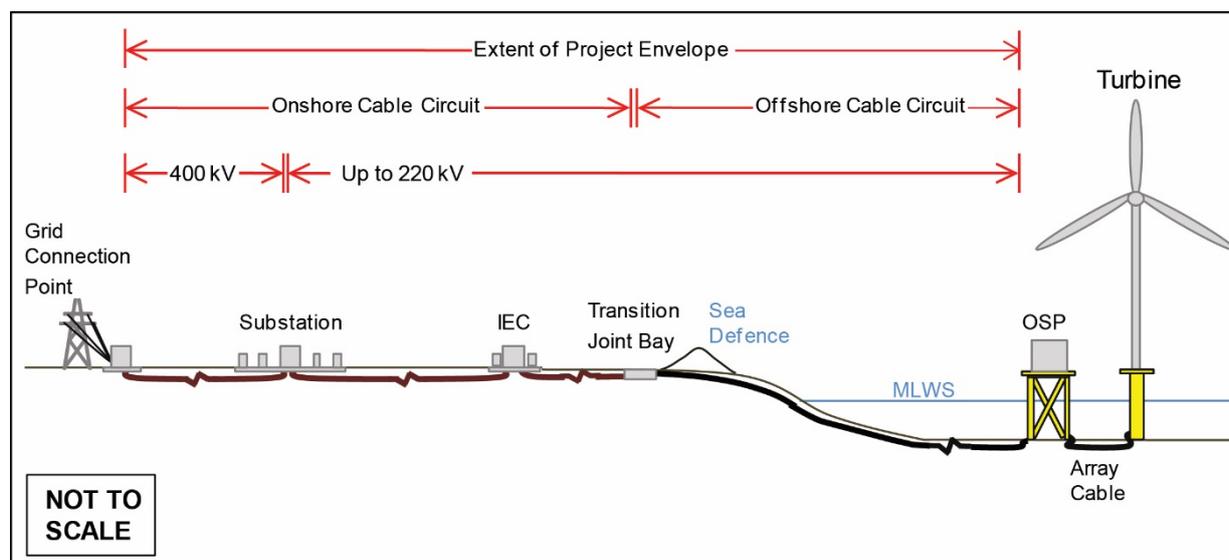
<sup>1</sup> Following detailed technical and commercial optimisation studies undertaken by TKOWFL, together with discussion with the Crown Estate, it was subsequently decided that the scheme would be taken forward as a 900MW project. This is considered to make better use of the site within the offshore array’s consented boundary. Further explanation on the impacts of this decision on the TKES is given in the Site Selection and Design Report (Application Document 8.17).

- onshore for connection to the national grid. It is this electrical system to which the current Application, and therefore this Statement, relates.
- 1.5 Although the proposed TKES development does not constitute a Nationally Significant Infrastructure Project (“NSIP”) in its own right, on 14 November 2013, the Secretary of State made an order under section 35 of the 2008 Act that the proposal should be treated as development for which development consent is required. The direction brings the Application within the remit of the 2008 Act.
- 1.6 This Statement forms part of the suite of application documents for the Order which seeks development consent for electrical system infrastructure (referred to as the Triton Knoll Electrical System or “TKES”) which will enable the Triton Knoll Offshore Wind Farm to connect to the national grid.
- 1.7 The TKES is required to transmit power from the Triton Knoll Offshore Wind Farm array to the National Grid substation at Bicker Fen for distribution to the national network. The power generated by the offshore wind turbines is collected by the offshore substation platforms (“OSPs”) and transformed to a suitable voltage for export before being exported by sub-sea and underground cabling. An intermediate electrical compound (“IEC”) is required to compensate for the reactive power that is a characteristic of long distance alternating current circuits. A step-up substation in the vicinity of the existing National Grid substation at Bicker Fen transforms the power to match the operating voltage of the national electricity network prior to transmission.
- 1.8 A description of the component parts of the TKES is given at paragraph 2.1.
- 1.9 Figure 1 provides an overview of how the key pieces of infrastructure relate to one another and also to the offshore array.
- 1.10 This Statement has been updated for Deadline 7 to:
- Note changes that may have arisen during the course of the Examination;
  - Make minor corrections such as typographical errors and cross-references;
  - Note where additional material has been submitted on a particular topic; and
  - Provide updates where matters have moved on since the Statement was prepared.
- 1.11 While significant progress has been made on securing Heads of Terms for private treaty agreements during the Examination, the detail of those subsequent negotiations has not been addressed in Section 6. Rather the Applicant refers the reader to the

Updated Schedule of Compulsory Acquisition submitted at Deadline 7. (This will be further updated for Deadline 8).

1.12 Save where otherwise indicated, references to the Order, Land Plans, Book of Reference and Funding Statement within this updated Statement should be read as being references to the latest revision of those documents as follows:

- the Order (Revision G);
- Land Plans and Crown Plans (Revision D);
- Book of Reference (Revision C); and
- Funding Statement (Revision C).



**Figure 1: Triton Knoll Electrical System schematic.**

1.13 The details of the development for which development consent is sought are set out in Part 1 of Schedule 1 to the draft Order.

1.14 The Order seeks powers to compulsorily acquire land and new rights (both temporary and permanent) for the purposes of the construction and operation of the TKES. In this Statement, the land which is the subject of the compulsory acquisition powers sought in the Order is referred to as “the Order Land”. The Order Land is described below in section 4 of this Statement and is further shown coloured yellow and pink on the Land Plan (Application Document 2.3) which accompanies the Application. The part of the Application relating to compulsory acquisition powers also includes a Book of Reference (Application Document 4.3) which identifies those persons with an interest in the land affected by the Order, and a Funding Statement (Application Document 4.2) which explains how the acquisition of land and/or interests required in connection with the TKES, together with the construction of the project itself, will be funded.

- 1.15 This Statement explains TKOWFL’s justification for the inclusion of compulsory acquisition powers in the Order and explains why, in TKOWFL’s opinion, there is a compelling case in the public interest for the making of the Order with the inclusion of those compulsory acquisition powers so as to secure the outstanding land and property interests, including the special category land, required to enable the TKES to proceed.
- 1.16 This Statement is prepared pursuant to Regulation 5(2)(h) of the Infrastructure Planning (Applications: Prescribed Forms and Procedures) Regulations 2009 (as amended) (“the Regulations”) and the Planning Act 2008: Guidance Related to Procedures for the Compulsory Acquisition of Land published September 2013 (“the Guidance”).

## 2 THE APPLICATION

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### Purpose of the Order

2.1 In summary, the purpose of the Order is to grant TKOWFL development consent for the electrical system infrastructure which will enable the Triton Knoll Offshore Wind Farm to connect to the national grid. The Triton Knoll Electrical System (TKES) works include:

- A subsea grid connection from the consented offshore substations within the offshore array to a landfall north of Anderby Creek on the Lincolnshire coast;
- Onshore connection works which come onshore at Anderby Creek, comprising up to six underground cables and transition joint bays connecting the offshore and onshore cables;
- An onward 60km onshore underground cable route, comprising up to six underground cables and associated works;
- A new intermediate electrical compound (IEC) east of the village of Orby, mid-way along the combined offshore and onshore cable route
- A new substation to the north west of the existing National Grid Bicker Fen 400kV substation at Bicker Fen;
- Up to 4 onshore High Voltage Alternating Current (“HVAC”) power circuits to transmit electricity from the Triton Knoll substation to the existing National Grid Bicker Fen substation.
- Creation of a new permanent access road to the new substation from the A17;
- 26 new temporary construction compounds, including new accesses from the closest highway where necessary;
- Up to 200 accesses for surveying, site fencing and maintenance, including new accesses from the closest highway where necessary (included to secure right of access only);
- Offsite highways works to accommodate the transport of abnormal loads, including removal and reinstatement of hedgerows to facilitate road widening, removal of bollards, lampposts and ground levelling; and
- Landscaping works including planting and earthworks.

2.2 The Application also includes associated development under Section 115 of the 2008 Act consisting of:

- unlicensed works<sup>2</sup> at the National Grid substation at Bicker Fen including but not limited to cabling, cable sealing ends, circuit breakers, surge arrestors, disconnectors, transformers, busbars and busbar clamp measuring equipment, relay marshalling rooms, and electrical earthing works ;
- further associated development including
  - ramps, means of access and footpaths;
  - bunds, embankments, swales, landscaping and boundary treatments;
  - habitat creation;
  - boreholes;
  - jointing bays, manholes, link boxes and other works associated with the installation of cable ducts and cable laying including trenchless techniques for laying the onshore cables beneath watercourses and roads and launch and receptor pits for trenchless techniques;
  - water supply works, foul drainage provision and surface water management systems;
  - temporary structures including those needed to facilitate the crossing of watercourses including bailey bridges;
  - temporary construction laydown areas and compounds, including accesses and their restoration;
  - temporary drilling and tunnelling compounds and working areas and their restoration;
  - works to remove, reconstruct or alter the position of apparatus including mains, sewers, drains, cables and pipelines; and
  - such other works as may be necessary or expedient for the purposes of or in connection with the relevant part of the authorised project.

2.3 The Order also contains:

- powers to compulsorily acquire land and/ or, rights in, over or under land, for the construction and operation of the TKES;

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<sup>2</sup> “Unlicensed works” are works needed to connect TKES to the National Grid substation at Bicker Fen that National Grid is not required pursuant to its transmission licence to carry out itself.

- the power to impose restrictive covenants such as in respect of the use of land, in order to protect the integrity of the TKES;
  - the power to acquire rights in respect of special category land relating to an area of presumed open space at Anderby Creek beach;
  - powers to take temporary possession of land in connection with the construction of the TKES; and
  - the power of entry onto land for the purposes of carrying out surveys.
- 2.4 In addition, it contains a power for the grant of a deemed marine licence under Section 66(i) of the Marine and Coastal Access Act 2009 (“the 2009 Act”).
- 2.5 A full technical explanation of the TKES is contained in Volume 2, Chapter 1 and Volume 3, Chapter 1 of the Environmental Statement (“ES”) (Application Document 6.2) accompanying the Application for the Order. This Statement focuses upon TKOWFL’s justification for the inclusion of powers of compulsory acquisition in the Order to ensure the delivery of the onshore infrastructure of the TKES.

### 3 TRITON KNOLL OFFSHORE WIND FARM LIMITED (TKOWFL)

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#### **Triton Knoll Offshore Wind Farm Limited (TKOWFL)**

- 3.1 As set out above, TKOWFL is a joint venture between two leading international energy companies; RWE Innogy UK Limited and Statkraft UK Limited. RWE Innogy UK 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 UK Limited is the UK subsidiary of Statkraft Group. Statkraft is Europe's largest generator of renewable energy and is the leading power company in Norway.
- 3.2 RWE Innogy and Statkraft are global leaders in renewable energy, long term investors in the UK renewables sector and together have interest in more than 6,500MW (pro rata) of offshore wind assets<sup>3</sup>. Further detail about the companies behind TKOWFL and their track record in offshore wind development is given in section 10.

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<sup>3</sup> Figure relates to construction, operation and development.

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## 4 DESCRIPTION OF THE ORDER LAND

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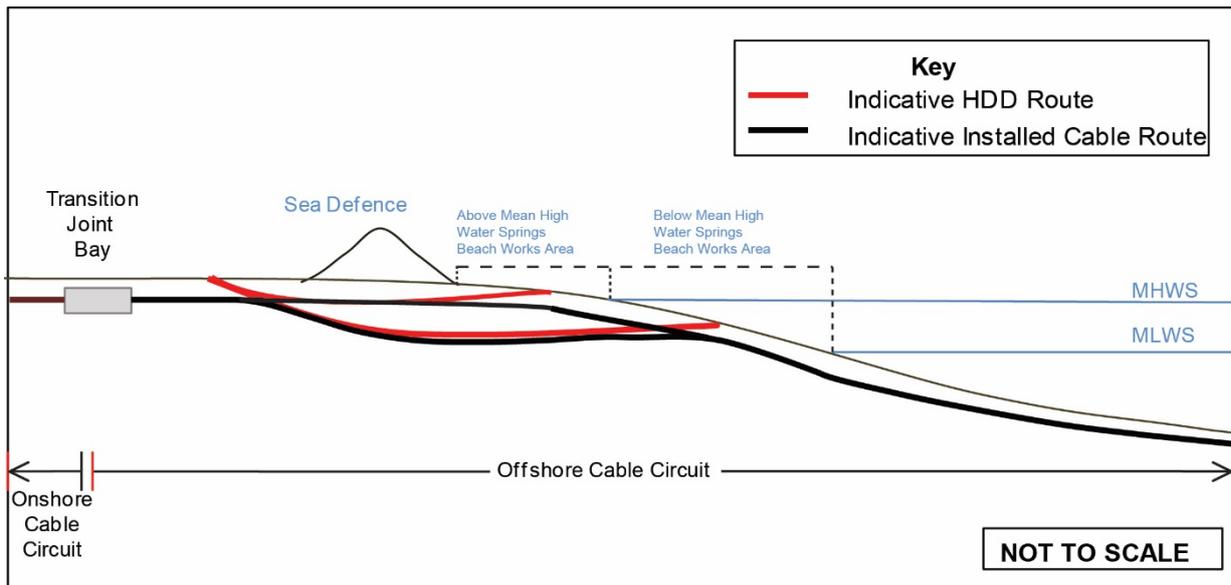
### Location and Characteristics

- 4.1 The Triton Knoll Offshore Wind Farm (“TKOWF”) will be constructed approximately 33km off the Lincolnshire Coast 46km from the north Norfolk coast and 48km from the East Riding of Yorkshire coast (as its closest points).
- 4.2 The power generated by the offshore turbines needs to be transferred into the National Grid transmission system via the TKES. The onshore development for which development consent is being sought in the Order, will include from mean low water:
- the cable landfall site at Anderby Creek,
  - an onward cable route of approximately 10.5km up to an intermediate electrical compound (IEC) east of the village of Orby;
  - from the intermediate electrical compound, an onward cable route of approximately 47km up to the grid connection point at Bicker Fen, where a new substation is required;
  - a section of 400kV underground cabling from the Triton Knoll substation to the National Grid substation;
  - electrical works at the National Grid substation at Bicker Fen (termed “unlicensed works” as National Grid is not required pursuant to its transmission licence to carry these out itself).
- 4.3 The Order Land comprises an area of approximately 23,546 hectares (58,183 acres). The Order Land includes the land, rights, restrictions and interests required for the onshore infrastructure associated with the TKES, comprising Work Numbers 1 to 55 inclusive, which are described in more detail in Volume 2, Chapter 1 and Volume 3, Chapter 1 of the Environmental Statement (ES) (Application Document 6.2). An explanation of the rights required is given in the introduction to the Book of Reference (Application Document 4.3).
- 4.4 The Order Land can principally be characterised as marsh and fen agricultural land with extensive land drainage systems.

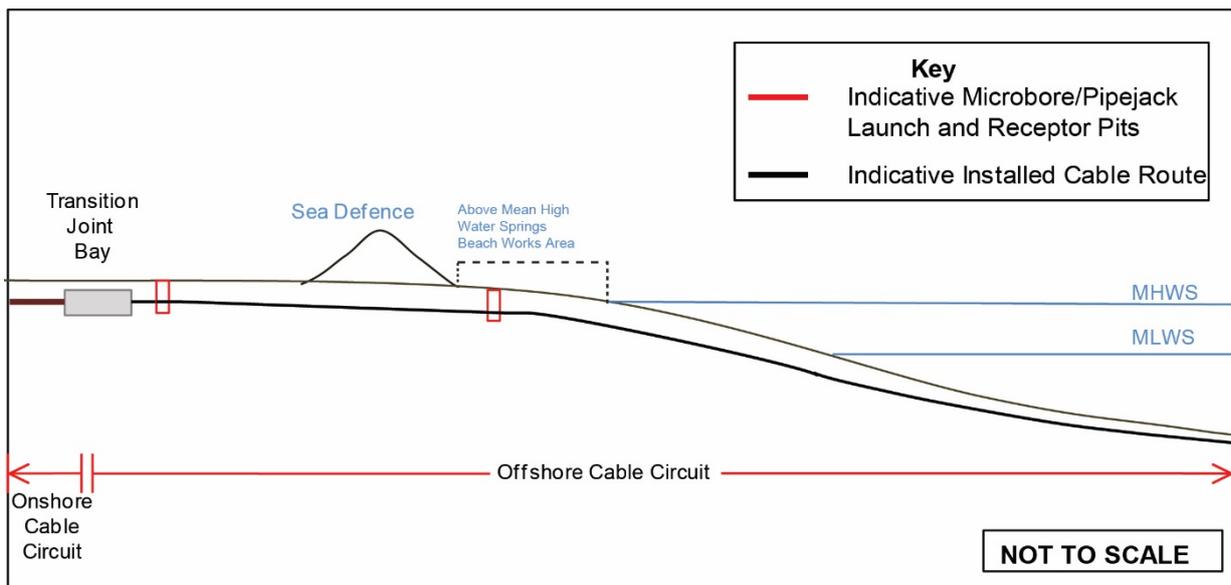
### Landfall

- 4.5 The landfall is located to the north of Anderby Creek on the Lincolnshire Coast. This is where the offshore export cables will come ashore under the beach and sand dunes, and will be jointed to the onshore cables within the transition joint bays, which will be located within the arable field on the landward side of the sand dunes.

- 4.6 At this location, a trenchless construction operation would be undertaken from the transition joint bay search area (as shown in Figure 1.2 in Volume 3, Chapter 1 of the ES) to lay ducts under the dunes. Once the ducts are installed, the offshore cables will be trenched up the beach and pulled through the ducts under the sea defences and into the transition joint bays. The proposed landfall site is located in an area where the sea defences are relatively shallow, which benefits construction, and near an existing beach access track, which will facilitate access for construction and maintenance purposes.
- 4.7 Trenchless construction techniques will allow the cables to be installed below the dunes and sea defences without the need for open cut techniques to be used. The construction works would be located primarily behind the sand dunes and coastal path within the transition joint bay search area and a temporary construction compound, with some works taking place on the beach. The work site would be up to 4.5 hectares (11.1 acres) in size.
- 4.8 The trenchless techniques that may be used for the landfall cable installation are:
- horizontal directional drilling (“HDD”) (Figure 2);
  - micro boring (Figure 3); or
  - pipe jacking (Figure 3).
- 4.9 The technique that will ultimately be used will be determined by pre-construction surveys and studies, which will provide detailed information about the ground conditions to enable the most appropriate technique to be selected.
- 4.10 Up to six cable circuits will be required for the TKES, with one trenchless bore per cable. The length of the bores is anticipated to be no greater than 500m, with a diameter to accommodate a cable duct of up to 700mm diameter. One bore would be required for each cable circuit. The exit points may be spaced apart by approximately 50m to allow for flexibility in selecting appropriate routes under the sea defences and for working space around cables for beach works and ploughing.
- 4.11 Each offshore cable will then be jointed to an onshore cable within a transition joint bay located behind the sea defences and coastal path. Each transition joint bay would have a plan area of approximately 20m x 3m (for each cable circuit).



**Figure 2: Schematic cross section of landfall HDD cable duct installation**



**Figure 3: Schematic cross section of landfall microbore or pipejack cable duct installation.**

- 4.12 The landfall construction activities will be temporary and the land within this area will be reinstated after construction. The only above ground infrastructure remaining after construction will be the surface of the transition joint bays, which will house inspection covers, and which will be located in the arable field on the landward side of the dunes.
- 4.13 The landfall is located within the Lincolnshire Coastal Grazing Marsh Huttoft Target Area, and the creation of new grazing marsh in this area is an aspiration of the

Lincolnshire Coastal Grazing Marsh project. As such the transition joint bays and associated vehicle access from the existing elevated track will be raised by up to 1.5m above existing ground level for an area no greater than 0.5ha. This is to ensure that the works do not adversely affect the potential for the creation of new grazing marsh in the future, should this go ahead. The raised area of land which accommodates the new transition joint bays will be grassed and have the appearance of a ridge and will be viewed in the context of the raised dunes and the existing raised farm track.

- 4.14 No permanent above ground infrastructure will be located at the beach, dunes or assumed area of open space behind the dunes. The area of open space is referred to in paragraph 13.24 of this Statement.
- 4.15 Further details of the landfall works are contained in Volume 3, Chapter 1 of the ES (Application Document 6.2).

### **Onshore cable route**

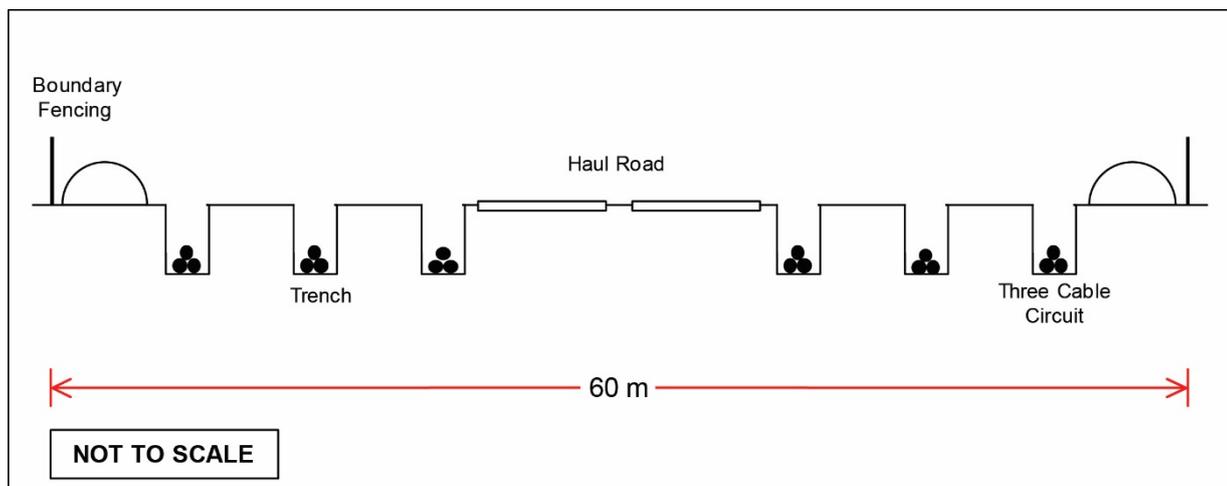
- 4.16 The onshore cable route is approximately 60km in length and will run underground between the landfall at Anderby Creek and the existing National Grid substation at Bicker Fen, via an intermediate electrical compound (IEC) near to the village of Orby and a Triton Knoll substation near to the village of Bicker.
- 4.17 Whilst there is some variety in the landscape along the length of the proposed onshore cable corridor, with a more natural marshland landscape towards the landfall and fenland landscape nearer to the National Grid Bicker Fen substation, it is largely flat, agricultural land. Vegetation cover mainly consists of hedgerows located on field boundaries with occasional blocks of woodland and shelterbelts.
- 4.18 The onshore cable corridor is located within two National Character Areas as defined by Natural England; Lincolnshire Coast & Marshes and The Fens.
- 4.19 The cable route passes through five landscape character areas, which are described in more detail in the Landscape and Visual chapter of the Environmental Statement (Volume 3, Chapter 2) and summarised below.
- J1: Tetney Lock to Skegness Coastal Outmarsh. This character area includes the initial approximate 20 km of cable route and the landfall. The overall character area is a low lying, drained plain which is mostly flat with only occasional minor undulations. Land use is predominantly mixed agricultural with both arable and pasture. There is an extensive network of drains, ditches and dykes beside fields. The rivers and the historic Louth Canal cross from the Lincolnshire Wolds in the west towards the coast. Sparsely scattered settlements are set within mature ornamental trees and hedgerows. The largest settlements are largely coastal (and away from the cable route) such as Mablethorpe, Ingoldmells and Skegness. There is an extensive network of raised minor roads with a few larger A-roads serving

the coastal resorts. There are some obvious man-made influences including several wind farms.

- I1: Holton le Clay to Great Steeping Middle Marsh. This character area intermittently covers the cable route with an approximate 5 km extent and consists of gently undulating foothills to the Lincolnshire Wolds. Land use is predominantly arable farmland with medium to large scale fields, with some pasture with grazing sheep and cattle. Fields are often bounded by ditches and dykes and field pattern is slightly less structured than other character areas along the cable route. There are scattered blocks of mixed deciduous woodland and defined hedgerow boundaries throughout.
- B1: Wainfleet All Saints to Friskney Settled Fen. This character area covers a short approximate 1 km extent of the cable route and is largely flat with some gentle undulations and slightly elevated above the surrounding drained fens and coastal marsh. This is a well settled rural landscape with many dwellings and farmsteads scattered throughout. Fields are predominantly arable fields with occasional hedgerows. Frequent settlements, farmsteads and dwellings are set amongst mature tree planting and shelter belts. A relatively diverse but intact rural landscape.
- A1: Stickney to Sibsey Reclaimed Fen. This character area includes approximately 22 km of the cable route and is low lying, drained fenland. Land use is intensively farmed medium to large scale arable fields which form vast seas of crops. Field boundaries are typically open with ditches, occasional hedgerows or remnant hedgerows. Fields are drained by a hierarchy of dykes forming an extensive grid network. The grid is emphasised by adjacent raised minor roads and telegraph poles and wires. There is sparse tree cover throughout which is largely confined to shelter belts, along some roads and around dwellings and settlements including occasional coniferous belts and short lines of poplars. The area is sparsely populated with widely scattered farmsteads and small linear hamlets. There are settlements along the A16 road which is the main road through the area. Away from the A16 the area is relatively remote and tranquil.
- A1: Holland Reclaimed Fen. This character area includes the final approximate 12 km of cable route and consists of flat and low-lying reclaimed fenland. This is largely a man-made intensive arable landscape laid out in a regular, geometric pattern with narrow roads and trackways alongside drains, dykes and ditches. Field boundaries are typically open with wet ditches, dykes and drains and the occasional hedgerow. The River Witham and South Forty Foot Drain are key dominating features of the area. In terms of built development, this is a sparsely populated area with occasional small hamlets, scattered farmsteads, and occasional rows of former workers' cottages. Occasional large scale horticultural glasshouses, and packing or processing plants occur near the southern boundary of the area. There are also occasional derelict farm cottages and field buildings.

Bicker wind farm and large scale pylons on the south western tip are modern landmark features.

- 4.20 The onshore cable corridor passes through two local authority areas; Boston Borough and East Lindsey District. The corridor is wholly within Lincolnshire County.
- 4.21 The route of the cable corridor has been determined following site visits; detailed consultation with landowners and other stakeholders; the findings of the ecological surveys; professional judgement; as well as through numerous workshops between engineers and other specialists (including environmental) to overcome obstacles and concerns in an appropriate manner and to resolve conflicting issues.
- 4.22 The cable circuits will be installed within a construction corridor up to 60m wide, save for one section which will have a maximum width of 66m (see paragraph 4.43 below) or where the corridor fans into the IEC, Triton Knoll substation and existing National Grid Bicker Fen substation to provide design flexibility.<sup>4</sup>
- 4.23 The 60m width required for the cable corridor is based on a number of assumptions which will be confirmed through the final design process, and includes space for cable trenches; space to temporarily store topsoil and subsoil; a temporary haul road; as well as space to store any equipment required for that section of work during construction. This is indicatively shown in Figure 4 below and explained in more detail in paragraphs 4.24 to 4.42 below.



**Figure 4: Indicative cross section of onshore export cable corridor**

- 4.24 The installation needs to comply with best practice standards to cater for up to 6 cable circuits, including joint bays and associated electrical infrastructure.

<sup>4</sup> Please see Appendix 29 of the Applicant's response for Deadline 4 of the Examination *Further detail regarding the TKES cable corridor*, [REP4-056] to [REP4-059].

- 4.25 Ground conditions. The construction methodology will be developed and modified as necessary during construction to suit actual ground conditions. The ground conditions may vary significantly along the route (for example, hard or soft ground, low or high water table). Wider battered/ stepped excavations are an option for deeper or softer ground to provide a sufficiently safe working environment.
- 4.26 Circuit spacing. Depending on the specific soil types and associated thermal properties, a circuit spacing of the cable groups could be up to around 3.5m centre-to-centre, to ensure sufficient dissipation of heat for the required burial depth in the envisaged ground conditions. Heat build-up increases resistivity in the cables and reduces transmission efficiency.
- 4.27 Excavated material. The excavated material for the cable trenches must not be placed close to the edge of the trench as the overburden may cause collapse of the side wall. Hence there is a need to have a gap between the edge of an excavation and the toe of the subsoil stockpile. This should be greater than 0.6m, but more than 1m is best practice to provide a walkway (including barrier).
- 4.28 The width allowed for stockpiled material of approximately 8.6m and 5.8m for topsoil and subsoil respectively each side of cable route is appropriate to ensure the stability of the bulked excavated material.
- 4.29 The natural angle of repose and bulking of excavated material will vary dependent on local soil properties. Assuming a reasonably dry soil or clay, the best-case angle is 30 degrees. Wetter or loose material would be less and possibly as low as 15 degrees for very wet clay. As the soil properties will vary with prevailing weather conditions it is difficult to predict accurately in advance of the works but 25 degrees has been assumed.
- 4.30 Excavated material is generally much looser than before excavation and there is a need to assume some bulking (increased volume) of excavated material. The amount of bulking can vary dependent on material but it is unlikely to exceed 45% for topsoil and subsoil.
- 4.31 Topsoil depth will vary along the length of the route and agricultural nutritious topsoil needs to be separated from subsoil. Assuming 300mm deep, 40m wide, agricultural type topsoil strip is necessary with a bulking factor of 45% then the resulting volume would be approximately 17 m<sup>3</sup>. If slightly wet topsoil is assumed with a natural angle of repose of 25 degrees, then the topsoil storage available for a 8.6m wide strip is 8.6m<sup>3</sup>/m run with a total capacity of approximately 17m<sup>3</sup>/m run for stockpiles either side of cables. On the basis of these calculations the storage area proposed for topsoil is appropriate.

- 4.32 The amount of subsoil excavation for the cables installation will vary with cable burial depth. The depth may be up to 2.5m to top of cables, so excavation volume, assuming negligible topsoil, could be as much as approximately 11m<sup>3</sup>/m run for six cables. If slightly wet subsoil is assumed with a natural angle of repose of 25 degrees, then the topsoil storage available for a 5.8m wide strip is 5.8m<sup>3</sup>/m run with a total capacity of approximately 11m<sup>3</sup>/m run for stockpiles either side of cables. On the basis of these calculations the storage area proposed for topsoil is appropriate.
- 4.33 The spacing between the outer stockpile of material and the boundary fence of 1.6m is necessary to provide access for inspection of the fence and maintain it where necessary. It also helps to further reduce the risk of any topsoil roll off encroaching on neighbouring land.
- 4.34 The spacing between each stockpile area of approximately 1m provides an appropriately sized gap to maintain segregation of material and facilitate a route for on-foot inspection.
- 4.35 Temporary construction haul road. A temporary haul road is required along the cable corridor during construction to allow work teams, equipment and materials to access all parts of the corridor to undertake cable installation work. The use of the haul road removes a significant amount of construction traffic from the local roads, as once construction traffic is within the construction area it can access all parts of that cable corridor section. Without a temporary haul road there would need to be a far greater number of access points from the public highway to the corridor and the construction period would most likely take longer.
- 4.36 The proposed temporary haul road width of 6m is appropriate. It is less than that normally specified (7.3m) for permanent highway construction for two way traffic flow (passing vehicles). 6m is appropriate for the envisaged construction vehicles on a suitably managed site.<sup>5</sup>
- 4.37 Crossings. The crossings at an estimated minimum 99 locations will require HDD or other trenchless techniques which will be challenging as it involves the operation of specialist plant and equipment at these locations.
- 4.38 Number of circuits. Depending on the transmission voltage and the capacity of the offshore substation platforms within the consented offshore array, up to six onshore high voltage alternating current (HVAC) cable circuits will be required

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<sup>5</sup> Amended to correct discrepancy. The figure of 6m is now consistent with those included in the Outline Construction Method Statement (Revision D, paragraph 2.1) and the Outline Soil Management Plan (Revision E, paragraphs 3.7, 3.12, 3.19 and 3.24).

- to transmit the power from the transition joint bays to the Triton Knoll substation via the IEC. The voltage will be determined by detailed studies.
- 4.39 Transmitting power at higher voltage over long distances has technical and efficiency limitations and hence a range of voltage options are necessary for consenting purposes, until detailed design activities are complete. The voltage of the offshore transmission system will, indicatively, be between 132kV and 220kV.
- 4.40 Power transmission at lower voltages means higher electrical currents and current carrying capacity is a limiting factor for a circuit. Thus, particularly at 132kV, up to six circuits will be necessary, in order to have sufficient capacity to transmit 900MW.
- 4.41 Construction compounds. The cable corridor crosses a number of major roads, rivers, drains and railway lines, which provide natural section breaks. As the construction haul roads are unable to cross these, temporary construction compounds (as described later) are therefore required within each cable corridor section (with the exception of one very short section) to facilitate construction of that section of corridor. Longer sections of corridor will have more than one temporary construction compound in order to allow efficient construction work.
- 4.42 In view of the above, the proposed 60m corridor width is appropriate and proportionate.
- 4.43 One section of the cable corridor, approximately 3km long from the A158 north to the IEC, will have a maximum width of 66m to allow for a double-width haul road to accommodate IEC plant delivery and installation traffic, in addition to the construction vehicles required to construct that section of the cable corridor, thus removing it from local minor roads.
- 4.44 Each circuit will consist of three onshore power cables (positive, negative and neutral) – each approximately 150mm in diameter – and will include up to three fibre optic cables. The cables will be installed in individual lengths varying from approximately 600m to 1000m and then jointed.
- 4.45 The entire cable system will be underground. Each circuit will have three main ducts – one for each electrical cable - and two smaller ducts for fibre optic cables. Each electrical cable duct will be made of plastic and be a maximum of 250mm in diameter.
- 4.46 The ducts would be buried underground at an indicative depth of 975mm below the top of the subsoil layer in agricultural land. In some areas the ducts may be deeper in order for circuits to be located below identified field drains to allow drainage maintenance access, or where the route is required to cross beneath features such as pipelines, highways or rivers.

- 4.47 Open-cut trenching will be used to install the majority of the cable in relatively unconstrained areas. Trenchless construction techniques will be used as an alternative methodology to cross significant environmental and physical features such as main rivers, all drains owned and/ or maintained by the Internal Drainage Boards<sup>6</sup> (“IDBs”), all public roads and all three of the railway lines which the TKES crosses. Some private roads, tracks and farm accesses may be crossed using open-cut techniques.
- 4.48 The cable corridor working area would be fenced for the duration of the construction period. If required, crossing points will be used in suitable places so that livestock and farm vehicles will be able to cross the cable corridor. This will help to minimise the amount of land required during the construction phase and to lessen the impact of construction on landowners.
- 4.49 Cable joint pits approximately 10m by 2m in plan will be required to house the joints between individual lengths of cable. These are likely to be required every 600m to 1000m for each circuit. The joint pits will consist of a concrete plinth and may include underground concrete walls. While crossing agricultural land the highest point in the pit – including the cable circuit and associated protection – will be at a minimum depth of 900mm below the top of the subsoil layer. In some areas the joint pits may need to be deeper, for example where there is extensive field drainage, so that future maintenance of field drainage is unhindered by the presence of the pits.
- 4.50 The jointing pits will require separate, smaller cable-testing pits (known as link boxes) to allow for fault testing. These will consist of a manhole set in a concrete plinth at ground level. The link boxes will be connected to the jointing pits via an underground testing cable which will be buried using the same techniques as the onshore export cables. One link box will be required for each circuit and will be located within the 60m cable corridor, but no more than 15m from its corresponding jointing pit. Link boxes will be located in close proximity to field boundaries where reasonably practical, so as to minimise disruption to agricultural operations.

### **Triton Knoll substation**

- 4.51 The Triton Knoll substation site of approximately 23.9 hectares (59 acres) is located on arable fields to the north-west of the village of Bicker and south of Swineshead, south and east of the South Forty Foot Drain. A new permanent access road is proposed from the A17 to avoid traffic travelling through Bicker village. A temporary construction compound will be required at the entrance from the A17 to facilitate construction of the permanent access road.

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<sup>6</sup> The IDBs within which the TKES is located are Lindsey Marsh Drainage Board, Witham Fourth IDB and Black Sluice IDB.

- 4.52 The area in which the substation site is proposed is a large scale and open, landscape which predominantly consists of large arable fields.
- 4.53 The above ground electrical infrastructure within the substation compound will include either air-insulated switchgear (“AIS”) or gas-insulated switchgear (“GIS”). The choice of AIS or GIS will be part of the detailed design process and a decision will be made post-consent prior to construction commencing.
- 4.54 A planting strategy for the substation is set out in the outline landscape strategy and ecological management plan (Application Document 8.8). Further details are also included in the ES (Application Document 6.2).
- 4.55 A temporary construction compound of approximately 4.4 hectares (10.9 acres) will be required adjacent to the substation site. A location between the proposed substation and new access track has been identified and is shown on sheet 47 of the Land Plan.

### **Intermediate Electrical Compound**

- 4.56 An intermediate electrical compound (“IEC”) of approximately 6.2 hectares (15.3 acres) is required to provide reactive power compensation mid-way along the combined offshore and onshore cable route. The IEC is required to compensate for the reactive power that is a characteristic of long distance alternating current circuits.
- 4.57 The IEC site is a component part of a large-scale, flat and open landscape with a predominance of intensively farmed arable fields.
- 4.58 The IEC site is located on the south side of Marsh Lane, to the east of the village of Orby. It is located on a field between an existing grain store and the Skegness Stadium. This site is located approximately 6.5km from the coast, and as such, will be subjected to the corrosive effects of salt air. The design of the intermediate electrical compound is therefore assessed on the use of GIS which ensures that the sensitive equipment is housed within a building
- 4.59 Access to the new IEC will require permanent improvements to an existing access track.
- 4.60 A planting strategy for the IEC is set out in the outline landscape strategy and ecological management plan (Revision D).
- 4.61 A temporary construction compound of approximately 2.2 hectares (5.4 acres) will be required adjacent to the IEC site. A location to the west of the access track has been identified and is shown on sheet 10 of the Land Plan (Application Document 2.3).
- 4.62 In order to minimise the effects on the nearby village of Orby during the construction phase, HGV construction traffic will access the IEC site via the cable route haul road from the A158 to the south of the IEC.

### Temporary construction compounds

4.63 In addition to the temporary construction compounds for the IEC, Triton Knoll substation and National Grid substation, there is a requirement for 23 other temporary construction compounds which have been identified across the route. (At one of these locations two temporary construction compounds have been proposed opposite to each other, although only one will be required. This is explained at section 12.11).<sup>7</sup> Where possible, the temporary construction compounds have been located adjacent to existing major roads. From these locations it is proposed that construction traffic would utilise the temporary haul road within the 60m construction corridor to access other parts of the route.

### Specific environmental survey land

4.64 9 survey ponds have been identified, through consultation and agreement with Natural England, as being potential habitat for Great Crested Newts. These ponds will require surveys, prior to the commencement of the construction of the TKES, to establish whether Great Crested Newts are present. If necessary, suitable mitigation measures will be agreed with Natural England.

### Accesses for surveying, site fencing and maintenance

4.65 Access ways into every field along the onshore cable corridor are required to facilitate access to the cable corridor for the following reasons:

- Undertake surveys and investigations in advance of construction commencement;
- Erect site fencing along the working area of the cable route at the start of construction of each section of the route, before the haul road is installed;
- Remove site fencing following completion of construction and following the removal of the haul road;
- Inspection, maintenance and repair activities during the operational life of the wind farm, when the haul road and temporary construction compound access points are not in place.

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<sup>7</sup> One of the two alternative locations for the temporary construction compound has now been agreed with the landowner and the other removed from the Order limits. Please see Appendix 16 of the Applicant's response for Deadline 3 of the Examination, *Order Limits Reduction Request* [REP3-052] in this regard.

- 4.66 The access ways for surveys, site fencing and maintenance have been chosen, where possible, to utilise existing field entrances and existing tracks around and across fields to reach the cable route. No permanent works or development is proposed on the access ways, although some temporary measures may be required, such as laying temporary bridges over open drainage channels.

### **Unlicensed works at Bicker Fen**

- 4.67 Works are required to connect into the National Grid substation at Bicker Fen and will include the installation of cabling, circuit breakers, cable sealing ends, disconnectors, surge arrestors, transformers, busbars and busbar clamps, measuring equipment, relay marshalling rooms and electrical earthing works. Access will be required to undertake these works, as will the ability to store plant and materials, clear the ground and erect fencing to facilitate these works. These works are termed “unlicensed works” as National Grid is not required pursuant to its transmission licence to carry these out itself.

### **Offsite highways works**

- 4.68 Offsite highways works are required to accommodate the transport of abnormal loads, including removal and reinstatement of hedgerows to facilitate road widening, removal of bollards, lampposts and ground levelling.

### **Reinstatement**

- 4.69 Once the cable installation work is completed, the cable route haul roads will be removed and the ground reinstated using the separately-stored subsoil and topsoil. The temporary construction compounds will be removed and the land reinstated to its former condition.

### **Ownership of the Order Land**

- 4.70 TKOWFL has sought, and continues to seek, a negotiated solution with each of the parties identified in Part 1 of the Book of Reference (Application Document 4.3).
- 4.71 Identification of those with an interest in the Order Land commenced in 2012, via a variety of referencing techniques explained in section 7.4. TKOWFL, through its appointed land agent (Ardent), then began contacting those identified with a view to requesting access to land for site-selection related surveys, including environmental and engineering surveys. Where access was granted the results of those surveys contributed to the identification of the preferred onshore infrastructure locations, as described within section 5 of this Statement.
- 4.72 The current position in respect of negotiations with landowners is set out in section 6.

4.73 Special category land and special categories of landowner are dealt with in section 13 of this Statement.

## 5 EVOLUTION OF THE TRITON KNOLL ELECTRICAL SYSTEM

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### Project Award

- 5.1 In 2003 TKOWFL commenced a programme of studies and consultation to inform a preliminary appraisal of the Triton Knoll Zone prior to submission of their bid to the Crown Estate under the offshore wind farm Round Two tendering process. This included using available information on environmental constraints such as ground conditions and metocean conditions, human marine activities (navigation, commercial fishing, aggregate dredging, military and civilian aviation, amongst others) and ecological receptors (birds and marine mammals, amongst others). Based on information gathered during the bid process, a revised project boundary was taken forward and this formed the basis for ongoing detailed studies.
- 5.2 In April 2004, TKOWFL was awarded the exclusive development rights to the Triton Knoll Zone by the Crown Estate. An Agreement for Lease for this project area was signed with the Crown Estate in 2010, the content of which is summarised in section 10 of this Statement.

### Grid connection

- 5.3 With respect to the onshore infrastructure, a grid connection agreement was signed between TKOWFL and National Grid Electricity Transmission (“NGET”) in July 2009 for a connection at a new substation in Mumby. In December 2010 NGET advised TKOWFL that they were undertaking a ‘strategic review’ of the TKES grid connection. Given the significant amount of time that it was anticipated to take to carry out this review, it was decided that Triton Knoll Offshore Wind Farm would be progressed as two separate packages; the offshore wind farm itself and the electrical system.
- 5.4 An offshore wind farm of the size of Triton Knoll requires a connection to the high voltage (400kV) electricity transmission system owned and operated by National Grid. There are a variety of engineering, capacity and regulatory constraints that govern where and when a connection can be made to this system. Whilst it is possible to develop new substations and connection points, existing substations can however hold significant advantages over greenfield sites as potential sites for new generation assets, in particular where the landscape has already been developed through the addition of infrastructure, such as overhead lines and pylons.
- 5.5 For the TKES transmission connection, a key constraint was the area required for all of the equipment required to step up the voltage from the export cable capacity to the National Grid transmission voltage of 400kV. This equipment needed to be located at the proposed onshore substation site and needed to be of sufficient scale to include transformers, switchgear, static voltage compensation units and control and

- communication equipment. Taking into account a need for landscaping, a site footprint of up to 20ha was identified as being required for the Triton Knoll substation and this requirement was carried through into the site selection process.
- 5.6 TKOWFL and NGET undertook a joint Interface Selection Assessment in 2011. The existing high voltage transmission network (275kV and 400kV) in the vicinity of Triton Knoll is relatively limited. The Interface Selection Assessment Report (Application Document 8.18) explains the outcomes of the Interface Selection Assessment.
- 5.7 Seventeen potential connection options were initially identified by National Grid. These options included thirteen existing substations and four sites for potential new substations. The new substation sites all required new linear transmission infrastructure to be developed by National Grid to provide the connection. A review of the options which were considered and of the site selection process can be found in the Interface Selection Assessment Report (Application Document 8.18).
- 5.8 A new connection offer was received by TKOWFL in January 2012 identifying the connection point as the existing Bicker Fen 400kV substation, located north west of Bicker Fen, Lincolnshire. This connection point was then taken forward as the grid connection location and is included in the Application.

### **Offshore array**

- 5.9 In 2012 an application was submitted to the then Infrastructure Planning Commission for the offshore wind farm. Consent was granted by the Secretary of State in July 2013<sup>8</sup>.

### **Onshore infrastructure**

- 5.10 The site selection process has been iterative over a number of years and has taken into account engineering, electrical and environmental factors. The TKOWFL has carried out desk studies, site visits and surveys to narrow down the onshore infrastructure locations. The Site Selection and Design Report (Application Document 8.17) deals with the site selection process for the various elements of the TKES in full detail.
- 5.11 Detailed technical and commercial optimisation studies were undertaken by TKOWFL, together with discussions with the Crown Estate, following the making of the Triton Knoll Offshore Wind Farm Order 2013 (SI 1734/2003). It was subsequently decided that the scheme would be taken forward as a 900MW project, rather than 1200MW as allowed for under the array consent. This is considered to

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<sup>8</sup> The Triton Knoll Offshore Wind Farm Order 2013 (SI 1734/2003)

make better use of the site within the offshore array's consented boundary. This change had impacts on the spatial requirements for the electrical equipment for both the IEC and Triton Knoll substation, in that a reduction in the footprints of both was possible. Further explanation is given in the Site Selection and Design Report (Application Document 8.7).

### **Substation site selection**

- 5.12 The existing National Grid 400 kV substation at Bicker Fen is located in relatively open agricultural land with a railway line, wind farm and overhead lines constraining the area available for the new Triton Knoll substation.
- 5.13 The siting of the Triton Knoll substation was determined through a process of assessment of alternative locations. Consideration was given all sites of an appropriate scale within a 5km radius of the existing substation.
- 5.14 A range of environmental and technical constraints were considered when determining the best location for the substation, including;
- Spatial requirements for the electrical equipment;
  - The need to maintain an economic and efficient system;
  - Landscape and visual constraints;
  - Ecological constraints;
  - Noise constraints; and
  - Hard constraints, including access and existing infrastructure (such as overhead lines, an underground gas main and railway lines).
- 5.15 The first stage in the process for selecting the substation was to identify potential zones by gathering environmental information and establishing appropriate high level search constraints.
- 5.16 Four shortlisted zones were progressed to an 'Alternatives Consultation', which was undertaken with stakeholders and communities between the 19th February and the 30th April 2013.
- 5.17 The resulting preferred zone lies furthest from residential properties; has a shorter overall cable route; lies in close proximity to existing built infrastructure; and would benefit from the embankment of the South Forty Foot drain, which would offer a degree of screening of views from the west. This location is approximately 3.5km (2.2 miles) from the village of Bicker and 4.1km (2.5 miles) from the village of Swineshead.

5.18 Greater detail on the selection of the Substation site can be found in the Site Selection and Design Report (Application Document 8.17), section 7.

### **Intermediate Electrical Compound site selection**

5.19 For the TKES transmission connection, a key constraint was the need for an intermediate electrical compound (IEC) approximately midway along the combined onshore and offshore cable route to provide reactive power compensation. This equipment would be located at the proposed onshore intermediate electrical compound site and would include switchgear and other electrical equipment such as reactive power compensation equipment to ensure voltage stability and system efficiency. Taking into account a need for landscaping a site footprint of 3ha was identified as being required for the IEC and this was carried through into the site selection process.

5.20 Twenty nine potential zones were initially identified. A review of the options considered and the full site selection process can be found in the Site Selection and Design Report (Application Document 8.17), section 5.

5.21 The siting of the IEC was determined through a process of assessment of alternative locations. Consideration was given all sites with the required space within an 18km radius of the landfall.

5.22 A range of environmental and technical constraints were considered when determining the best location for the IEC, including;

- Spatial requirements for the electrical equipment;
- The need to maintain an economic and efficient system;
- Landscape and visual constraints;
- Ecological constraints;
- Noise constraints; and
- Hard constraints, including access and existing infrastructure.

5.23 Greater detail on the selection of the IEC site can be found in the Site Selection and Design Report (Application Document 8.17), section 5, including the reasons for the decision to change the preferred zone from a location to the west of Skegness (referred to as the 'Brown zone'), to a location to the north-west of Skegness (referred to as the 'Red zone').

## Landfall site selection

- 5.24 The area of search for landfall options along the Lincolnshire Coast was identified as between Sandilands to the north and Gibraltar Point to the south. This study area avoided the known infrastructure and environmental designations to the north of Mablethorpe and the known environmental designations and offshore wind related infrastructure to the south within the Wash.
- 5.25 A long list of landfall options was developed and refined to an initial shortlist following a critical assessment. Reasons for rejection included engineering constraints caused by sea defences and the need for clear cable route options within 1km of landfall and 750m minimum of unconstrained cable at the landfall; impacts arising to and from tourism and leisure, local residents, depth of intertidal zone; and ecologically designated areas. This then led to a shortlist, including Anderby Creek North, Anderby Creek South, Beeches Farm and Seacroft. Refer to the Site Selection and Design Report (Application Document 8.17), section 4, for further details.
- 5.26 The final choice is considered to be the site that is likely to cause least disruption to the smallest number of people and with the fewest engineering and environmental constraints. Anderby Creek North was announced as the preferred landfall option for the TKES in June 2013.

## Cable route selection

- 5.27 TKOWFL proposed a route between Anderby Creek North and Bicker Fen which sought to be consistent with the principles set out in the Holford Rules and also sought to minimise interaction with features such as the following:
- Towns, villages and settlements;
  - Nationally and locally designated areas, such as SSSIs and National Nature Reserves;
  - Scheduled Ancient Monuments, County Wildlife Sites, Local Nature Reserves and known heritage features, where possible;
  - Ancient woodland;
  - Registered parks and gardens and National Trust properties;
  - Areas of sensitive habitats, such as woodland, heathland or marshland; and
  - Rivers, streams and other water features.
- 5.28 The cable route site selection process took into account known environmental factors and was subject to a number of iterations prior to the statutory consultation (under s42 and s47 of the 2008 Act) undertaken in October 2014.

- 5.29 Throughout the cable route site selection process, including as a result of the statutory consultation, landowner comments regarding routing and location have, where possible, been taken into account and changes made. The Site Selection and Design Report (Application Document 8.17), section 6, explains how requests from landowners for amendments to the cable route have been taken into account and lists every route alteration which has resulted from requests received from stakeholders, including landowners. Section 7 of this Statement also provides a summary of the consultation undertaken.

## NEGOTIATIONS TO DATE

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### Negotiations to date

- 5.30 Significant progress has been made on securing Heads of Terms for private treaty agreements during the Examination. Heads of Terms have been agreed with, and signed by, 96 landowners at Deadline 7. The Applicant anticipates that further sets of Heads of Terms will be signed by Deadline 8.
- 5.31 The detail of the negotiations that have taken place between the Applicant and third parties since the date of the Application has not been addressed in this section. Those details, including the number of Heads of Terms signed, can be found in the Updated Schedule of Compulsory Acquisition submitted at Deadline 7. This will be further updated for Deadline 8.
- 5.32 Ardent were appointed in January 2012 as land agents to assist TKOWFL. The instruction included the core elements of securing access to land for a range of surveys over a number of option routes; to undertake land referencing process over all option routes and statutory referencing on the preferred route; to lead on informal landowner consultation and to assist in statutory consultation under Section 42(d) of the 2008 Act.
- 5.33 Ardent were also instructed to conduct negotiations with affected landowners and to make reasonable efforts to reach mutual agreement with landowners to secure the rights sought over land by private treaty.
- 5.34 Section 7 summarises the land referencing approach and methods adopted by Ardent in order to complete diligent inquiry and determine the details of all parties with an interest in the affected land.
- 5.35 Draft Heads of Terms (“HoTs”) for the proposed cable route, above ground infrastructure and permanent Substation access road were issued to affected landowners and/ or land agents (where appointed) in December 2014. The HoTs included a financial offer of payment for an easement in respect of the cable route (calculated as a percentage of land value) together with financial offers in respect of an option fee, temporary compound rental (where relevant) and inspection chamber payments. An fee undertaking was included within the HoTs to commit to meeting an initial capped contribution towards land agent and legal fees.
- 5.36 Meetings with a number of landowners and land agents representing landowners were arranged and held shortly after the draft HoTs were issued. Correspondence was also entered into with a number of landowners and land agents representing landowners at this stage, and subsequently with others whose responses were prompted by reminders from Ardent.

## Freehold acquisition land parcels

- 5.37 Meetings have been held to date with the land agents representing the landowners of the proposed Triton Knoll substation site at Bicker Fen, the proposed intermediate electrical compound (IEC) at Orby and the proposed landfall location at Anderby. The meetings have been attended by Ardent and a TKOWFL representative.
- 5.38 Discussions are currently ongoing and TKOWFL remains committed to securing necessary land by agreement.

## Other land parcels

- 5.39 Ardent has met with a number of landowners and land agents to date to commence discussions on the draft HoTs for the temporary construction compounds; access routes for surveying, site fencing and maintenance; and specific areas for environmental surveys. Good progress has been made with several landowners and their agents however no agreements have been concluded to date. TKOWFL remains committed to securing necessary land by agreement.
- 5.40 TKOWFL will continue to negotiate with relevant parties, although conclusion of all of these negotiations was not possible prior to submission of the application for the Order.

## Environmental surveys

- 5.41 Environmental surveys are necessary to obtain information in order undertake a comprehensive Environmental Impact Assessment (“EIA”). A number of onshore cable corridors were identified during the evolution of the TKES cable route.
- 5.42 Landowners and occupiers on the route that had been identified at that time were first approached by Ardent in March 2012 in an attempt to secure access to land in order to conduct various environmental surveys, some of which are constrained by seasonal requirements.
- 5.43 The access requests covered a number of these cable route corridors which at that stage were 1 km wide, plus a buffer of 250 m either side of each 1 km corridor. These corridors were then subsequently refined into cable route options and the locations for the above ground infrastructure. The Site Selection and Design Report (Application Document 8.17), section 6, explains the evolution of the cable route corridors.
- 5.44 The survey requirements therefore changed over time. For example, during early 2013, TKOWFL was seeking to survey areas of cable route connected with a site for the IEC to the west of Skegness (referred to as the ‘Brown zone’). The preferred location for the IEC was later changed to a location to the north-west of Skegness at Orby (referred to as the ‘Red zone’). This meant that TKOWFL was seeking survey access rights for a section of cable route which was later abandoned. Greater detail on

- the reasons for the decision to change the preferred zone for the IEC can be found in the Site Selection and Design Report (Application Document 8.17), section 5.
- 5.45 TKOWFL has always sought the voluntary agreement of landowners and occupiers for surveys in the first instance. Landowners were approached by letter, telephone and by face to face site visits as appropriate, explaining that the surveys were sought in connection with the TKES.
- 5.46 TKOWFL started to contact landowners to request access to land to undertake surveys from March 2012. Annex 1 to this Statement provides a selection of the access request letters that were sent out requesting access. It was also explained to landowners that the surveys would help TKOWFL to build an accurate picture of the baseline ecology, archaeology and other environmental data within and surrounding the Proposed Development Boundary, including by identifying the presence of any protected species.
- 5.47 In accessing land for surveys, TKOWFL has always been fully committed to compensating landowners for any loss or damage incurred as a direct result of surveys, for example if crops are damaged as a result of walk-over surveys.
- 5.48 The alignment of the cable corridor has evolved significantly over time which has meant that different landowners have been contacted at different times. The landowner responses to requests for survey access were varied and were given by return letter, verbal confirmation at a site visit, or by verbal instruction in a phone call and logged as appropriate. Access to some areas of land was refused outright on the basis of objection to the principle of the TKES. In some instances no reason for refusal was given. Figures 1 to 3 attached at Annex 2 provide the land access status achieved at specific points in 2012, 2013 and 2014 with the final Proposed Development Boundary and survey area overlaid. Figures 4 and 5 indicate the dates at which landowners on the various iterations of the routes were contacted.
- 5.49 Ardent relayed the status of access granted/ refused to TKOWFL by means of the production of plans (a selection is shown in Annex 2), showing the status of different land parcels by colouring. These plans were issued to environmental consultants working for TKOWFL, to show which land was available for survey. Accompanying the access plans was a schedule of landowner contact information, giving details of any arrangements prior to survey (for example, where a landowner had requested prior notice by phone before access was taken). TKOWFL undertook appropriate surveys to the land for which access had been granted at the time.
- 5.50 Multiple access requests were made to landowners and occupiers as the onshore cable route went through a period of development and refinement. This iterative cable route alignment process is detailed in section 6 of the Site Selection and Design Report (Application Document 8.17). Different surveys often had different seasonal requirements or methodology. This also meant that repeated requests for access for surveys were made in 2012, 2013 and 2014. Annex 3 provides a schedule setting out

- the access status in 2012/2013 and 2014 for each land parcel that is located within the final 2015 Proposed Development Boundary and a 250 m buffer.
- 5.51 By 2014, TKOWFL had undertaken environmental surveys across a significant proportion of the cable corridor and relevant study areas beyond the corridor. However, there was still around 180 land interests where access to survey the land had not been granted that lay within the cable corridor and within the 250m buffer zone either side of the route.
- 5.52 Owing to the spread of site-survey coverage across the cable corridor that had been achieved and, with regard to the ecology surveys, the low level of ecology that had been identified in the site surveys, TKOWFL was satisfied that it was not necessary to seek to secure access to all of the parcels of land. Further, TKOWFL was regularly discussing the acceptability of the data coverage with statutory advisors. Therefore, in February 2014, TKOWFL decided to take a targeted approach to securing land where access was being refused at that time. These were:
- geophysical and trial trenching surveys at the IEC and the Triton Knoll substation locations; and
  - Great Crested Newt (“GCN”) surveys at 9 previously un-surveyed ponds within 250m of the proposed development boundary.
- 5.53 The IEC and substation sites were selected for geophysical and trial trenching surveys because of the extensive nature of excavation works that will be undertaken at each of these sites; and following discussions with English Heritage and the local authority (Lincolnshire County Council) archaeologist and the Heritage Trust for Lincolnshire; and following desktop investigations by TKOWFL. TKOWFL was able to undertake geophysical survey at the IEC site in September 2014 having secured voluntary agreement from the landowner for this survey to be undertaken following harvest. No such agreement was gained with the landowner at the substation.
- 5.54 Access to the 9 pond locations had not been granted during previous survey seasons. Having identified the preferred cable route (subject to minor alignment changes), it was considered that the 9 ponds should be surveyed in order to ensure that all potential significant environmental impacts associated with the development were recognised and kept to a minimum. Consultation had been undertaken with Natural England to agree the scope, methodology and extent of the surveys. Further information is provided in Chapter 3 of the Outline Landscape Strategy and Ecological Management Plan (LSEMP – Application Document 8.8).
- 5.55 TKOWFL’s position has always been that the use of any compulsory means to access land for environmental surveys would be explored as a last resort. However, having been denied voluntary access to survey these areas of land after repeated attempts to

gain access voluntarily, TKOWFL had to investigate options for compulsory access. The identified options were:

- to apply to use powers under the Electricity Generation Licence (standard conditions) and Schedule 4, paragraph 10 of the Electricity Act 1989 (the “Generation Licence option”); or
- to apply to use powers under section 53 of the Planning Act 2008 (the “Planning Act option”).

5.56 TKOWFL considered the advantages and disadvantages of both of the above alternatives in order to proceed with the most appropriate option.

- For the Generation Licence option, TKOWFL had already sought and obtained a Generation Licence under the Electricity Act 1989. This would enable an application for compulsory access to be made straight away, with clear benefits to the development programme of the TKES. The Generation Licence option also meant that a single application could be made to Ofgem (on behalf of the Gas and Electricity Markets Authority). Furthermore, Ofgem had a guideline of 4 weeks for the length of time consultation with affected parties would take, as well as a guideline of 10 days for the decision period following the end of consultation. This provided greater certainty for when a decision might be expected.
- In contrast, under the Planning Act option, there is no set timeframe to determine these types of application. Multiple section 53 applications would be required to be made to the Planning Inspectorate in respect of 9 land parcels representing separate land interests. The Planning Act option also required a much greater level of detail in the information which must be submitted with the application, when compared with the Generation Licence option, including specific requirements for the plans which must accompany the application; detailed description of the project to which the application relates; details of the proposed surveys, including likely dates, duration, frequency, types of work and number of personnel involved; and justification for the request. These requirements would have a significant impact on the volume of work and time required to compile the Planning Act option application, and such a delay could impact on the ability to undertake seasonal surveys at the appropriate time.

5.57 In February 2014 TKOWFL therefore submitted an application to Ofgem, on behalf of the Gas and Electricity Markets Authority, for consent to access third party land under the Generation Licence option.

5.58 In July 2014, Ofgem notified TKOWFL that they were ‘minded to refuse consent’ for the application, as they believed that there was not the requisite direct relationship between the proposed land to be surveyed and the generation of electricity, as required by standard licence condition 15(4). TKOWFL took a pragmatic approach and withdrew the application.

- 5.59 Having identified issues with the current provisions in standard licence conditions 14 and 15, including in relation to the exercise of compulsory entry powers to carry out surveys, Ofgem subsequently undertook an initial consultation (commencing on 29 November 2014) on proposed changes to those standard licence conditions. On 24 March 2015, Ofgem confirmed that it had decided to proceed with a statutory consultation to modify standard licence conditions 14 and 15 of the electricity generation licence, noting that:

*“these issues in practice could cause delay and/or higher costs in developing or connecting generation and be a source of uncertainty and confusion for stakeholders in relation to the exercise of compulsory powers. We therefore proposed a number of draft amendments to address the above issues, with the aims of removing uncertainty for licence holders and other stakeholders, and of better facilitating the timely and efficient development of electricity generation, including the connection of offshore generation to the main system.”*

- 5.60 The Ofgem consultation ends on 19th May 2015. TKOWFL welcomes the proposed changes to standard licence conditions 14 and 15 to ensure that the requisite powers of entry for survey purposes are available for projects such as TKES.

### **Other interests**

- 5.61 The diligent inquiry process undertaken for the Land Referencing is summarised in paragraphs 7.4 to 7.6. The process in summary included Land Registry searches, letters/ emails/ phone calls to neighbouring landowners, site visits to speak with neighbours and where possible laminated site referencing notices were erected as close as possible to the land parcel affected.
- 5.62 However there are a number of land parcels included in the Order Limits where not all of the interested parties have been identified. These are recorded in the appropriate column in the Book of Reference as ‘Unknown’. The large majority of parcels which contain ‘Unknown’ are in relation to unknown owners of the underground mines and minerals. There are also a small number of agricultural access tracks where not all the users are known (plots 07/19, 08/02, 08/03, 08/04, 28/12, 41/08) and one small area of arable field where the ownership is unknown (plot 31/09).

### **Contact**

- 5.63 Should landowners or occupiers require further information on the Triton Knoll project, or wish to progress negotiations for the acquisition of an interest within the Order Land, contact should be made with Adam Kendall, Land Transaction Manager at RWE Innogy UK, of Trigonos, Windmill Hill Business Park, Whitehill Way, Swindon, Wiltshire SN5 6PB Tel 07788 302 996.

## 6 CONSULTATION

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### Consultation

- 6.1 In accordance with Sections 42, 47 and 48 of the 2008 Act, TKOWFL has undertaken pre-application consultation on the TKES, both statutory and non-statutory. Further details can be found in the Consultation Report (Application Document 5.1) which accompanies the Application for the Order.
- 6.2 Formal statutory consultation under Section 47, Section 42 and 48 of the 2008 Act was undertaken between 15 October 2014 and 19 November 2014, with:
- Statutory prescribed organisations (under Section 42(a));
  - The Marine Management Organisation (under Section 42(aa));
  - Relevant Local Authorities (under Section 42(b));
  - Landowners and those with an interest in the Order Land (under Section 42(d));
  - Community and other organisations in the ‘vicinity’ who may be affected both directly and indirectly by the TKES or who may be knowledgeable on the proposed elements (under Section 47); and
  - Wider communities and organisations (national and regional) in order to seek their comments on the TKES proposal described in the Section 48 Notice, which was published widely in regional and national newspapers.
- 6.3 Five further rounds of statutory Section 42 consultation were undertaken when parties who had not been previously identified became known, or when a change in the project boundary resulted in an impact on previously contacted parties. These consultation rounds took place between 05 December 2014 and 09 January 2015; between 12 January 2015 and 16 February 2015; between 26 January 2015 and 02 March 2015; between 20 February 2015 and 20 March 2015; and between 13 March 2015 and 10 April 2015.
- 6.4 For the purposes of Section 44 of the 2008 Act, the diligent inquiry which was undertaken consisted of the following, which was carried out by Ardent, as TKOWFL’s appointed land agent.
- Since early 2012 the identification of potentially affected parties has been ongoing. Survey access was required for a large number of option routes throughout 2012 and 2013. Landowners and other interested parties were identified initially through title searches with the Land Registry. Where ownership could not be determined through these means, a number of site visits were conducted which

included door knocking and speaking to neighbouring landowners and residents. Contact was also made with landowners via telephone, email and letter.

- Throughout 2014 the preferred route alignment was amended on a number of occasions following a series of informal consultation requests. Where additional land was included in the proposals further Land Registry searches were conducted followed by site visits and door knocking. In July 2014 two landowner specific events were held in Lincolnshire at venues close to the cable route where further land interest details could be confirmed with landowners who attended. In August 2014 formal land referencing questionnaires were issued to all identified affected parties. These were followed up with site visits and speaking with landowners where possible to verify the ownership and interested party information. Where land owners remained unknown or where persons with rights of access over affected access ways were unknown, site notices were erected in a suitable visible location (for example on gateways or nearby telegraph poles).
- The statutory consultation process under sections 42 and 47 of the 2008 Act commenced in October 2014 (refer to the Consultation Report (Application Document 5.1) for details). Where further interested parties were identified they were provided with the same information in CD format as previously-identified parties, and were given an opportunity to put forward comments and requests in relation to the project proposals. Where any significant changes in the routing were made, further statutory consultation letters and accompanying CDs were issued to those landowners whose land had been affected by the changes. In February 2015 a property watch service was conducted with the Land Registry to verify the current registered proprietors and identify any changes in ownership that had occurred to the Land Registry titles affected by the preferred route.
- Land ownership details were used to compile the Book of Reference (Application Document 4.3) which details the names and addresses of all parties who are believed to have an interest in land.

6.5 The community consultation was undertaken in accordance with a Statement of Community Consultation that was agreed with relevant Local Authorities and the Marine Management Organisation and published in September 2014. The relevant Local Authorities were East Lindsey District Council, Boston Borough Council and Lincolnshire County Council.

6.6 The non-statutory consultation that was undertaken included:

- Alternatives consultation in February 2013, to assist TKOWFL in determining the preferred location of the onshore Triton Knoll substation and IEC. The consultation material consisted of newsletters, questionnaires, site booklets, site reports and public exhibitions. Local parish councils; relevant ward members of the relevant District Councils; Lincolnshire County Council; statutory and non-

statutory bodies; those with an interest in the land and members of the public were invited to participate in the consultation. Although primarily focussed on the above ground infrastructure locations for the IEC and Substation, the 1km-wide cable corridor (with branches to the shortlisted zones) was also presented. Full details of this consultation process, including the responses received and the subsequent evaluation of options, is given in the ‘Alternatives Consultation Report’, which is appendix B of the Site Selection and Design Report (Application Document 8.7).

- An iterative process of route alignment and re-alignment followed the 2013 alternatives consultation, involving consultation with statutory bodies, discussions with landowners, internal review and appraisal, constraint identification (for example from recent survey data) and site visits. Advice was sought from cable installation specialists, a local land drainage consultant and the National Farmers’ Union. The cable corridor was refined to an initial 60m-wide route over approximately a year.
- Cable route alignment consultation, Spring 2014. During February and March 2014, landowners and members of the public were invited to give their feedback on the proposed cable route between the connection point at Bicker Fen and the preferred locations for the Triton Knoll Substation, the IEC and the landfall. (Details of the cable route are provided in Figure 6.2 of the Site Selection and Design Report (Application Document 8.17)). Questionnaires accompanied by plans representing the cable route and with information about the cable laying activities were sent to landowners located within 250 m of the proposed route. In addition, two land-specific exhibitions were held in July 2014 which gave landowners an opportunity to gain more information on the proposed cable route, how it may be constructed and how it could affect their land.
- Further consultation was undertaken with parish councils in March 2014. This took the form of presentations given by TKOWFL to representatives of fifteen parish councils including representatives from the parishes in which the landfall (Anderby PC), IEC (Orby PC) and Triton Knoll substation (Bicker PC) were proposed. Questions and comments from attendees were encouraged by TKOWFL. TKOWFL provided a further opportunity for parish councillors to attend a presentation in April 2014 for those unable to attend the March presentations. This presentation was attended by one additional parish council.

6.7 The main changes and design decisions that have been made to the TKES as a result of the above-mentioned pre-application consultation include:

- A re-evaluation of the proposed IEC location, following the announcement of proposals for economic regeneration in the area of the original shortlisted location.

- A dedicated access road to the Triton Knoll Substation to avoid traffic impacts on the village of Bicker.
  - Amendments to the cable route and the locations of temporary construction compounds.
  - Amendments to the accesses for surveying, site fencing and maintenance.
  - The use of the proposed cable haul road from the A158 to the south of the IEC site for all HGV construction traffic related to the construction of the IEC, as an alternative to using local roads.
  - Additional landscaping at the IEC.
  - Raising ground levels at the landfall to enable future creation of new grazing marsh on adjoining land.
  - A commitment to use trenchless crossing techniques for all Internal Drainage Board owned and/ or maintained drains, as well as public roads.
  - Designing construction works at the landfall to maintain access along the coastal path at all times, even when construction activities are taking place on the beach.
- 6.8 Full details of the outcomes of the non-statutory consultation, including a table of amendments are presented in the Consultation Report (Application Document 5.1).
- 6.9 It is clear from the above summary, from the detail in section 5 of this Statement, and from the findings reported in the Consultation Report (Application Document 5.1) accompanying the Application for the Order that TKOWFL has considered all reasonable alternative options for the siting of the onshore infrastructure, has consulted with the community and those directly affected and, where it was reasonable to do so, has modified the TKES as a result of consultation responses received.

## 7 PLANNING POLICY SUPPORT

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### Introduction

- 7.1 The TKES forms a key part of meeting the Government’s strategy for achieving targets for renewable energy provision in the UK. The legislative framework, planning policy and energy policy relevant to the TKES is set out fully in the Planning Statement (Application Document 8.4) with some key aspects summarised below.

### Legislative framework

- 7.2 The Planning Act 2008 (as amended) requires ‘development consent’ to be obtained to the extent that a development is, or forms part of, a Nationally Significant Infrastructure Project (NSIP). The 2008 Act therefore captures energy projects that would otherwise fall into other planning regimes, such as the Town and Country Planning Act 1990 or the Electricity Act 1989.
- 7.3 In addition to projects categorised as NSIP, the Act also allows promoters to seek a Direction from the relevant Secretary of State as to whether the project is ‘nationally significant’, regardless of whether it falls within the 2008 Act’s categorisation of a NSIP.
- 7.4 TKOWFL received a Direction on behalf of the Secretary of State on 14th November 2013 confirming that he considered that the TKES project is a development for which development consent is required.
- 7.5 Any consent granted under the Planning Act 2008 can include provision deeming the grant of a Marine Licence (under the Marine and Coastal Access Act 2009) for operations carried out wholly in England, waters adjacent to England up to the seaward limits of the territorial sea or the UK Renewable Energy Zone. TKOWFL has therefore included the granting of such a deemed consent in its application for this development consent, to cover offshore cabling between the Triton Knoll array and Mean High Water Springs.
- 7.6 TKOWFL has sought and obtained a Generation Licence under the Electricity Act 1989, which places certain obligations upon it, including the need to consider Preservation of Amenity in any development it brings forward. Furthermore, National Grid Electricity Transmission (NGET) has worked closely with TKOWFL to determine the preferred onshore Interface Point, where the TKES should join the existing 400 kV national transmission network. NGET is bound to ensure the development of an efficient, co-ordinated and economic network. This obligation will also apply to the future Offshore Transmission Operator (“OFTO”) that adopts the TKES, who will also be the holder of a Transmission Licence. TKOWFL has

approached the development of the TKES in the same manner as NGET or the future OFTO would do so.

- 7.7 The relevant Environmental Impact Assessment Regulations concerning the production of an Environmental Statement (ES) for the TKES are The Infrastructure Planning (Environmental Impact Assessment) Regulations 2009 and are the basis for TKOWFL's submission of an ES.

### **Planning and Energy Policy context**

- 7.8 As explained fully in the Planning Statement (Application Document 8.4), a variety of policies can be considered relevant to the TKES, including:

- National Policy Statements ("NPS")
- National Planning Policy Framework ("NPPF")
- Local planning policy

- 7.9 The NPS are the primary basis for decisions by the Secretary of State on energy projects under the 2008 Act, as long as other criteria, including the benefits outweighing the adverse impacts, are met. The relevant NPS to the TKES are EN-1 (need case and general assessment categories), EN-3 (specific assessment needs, particularly with respect to the offshore cable route) and EN-5 (need case and specific assessment needs with respect to the onshore elements of the TKES).

- 7.10 The NPPF is only likely to be of limited influence given that it fundamentally defers to the NPS.

- 7.11 Local planning policy in directly or indirectly affected planning authorities is generally in a state of flux, with various authorities having made different levels of progress. East Lindsey District and Boston Borough are both reliant on saved policies prior to the introduction of the NPPF, with East Lindsey having a potentially relevant emerging draft Core Strategy.

### **Need case for the TKES**

- 7.12 As set out in the Planning Statement (Application Document 8.4), the TKES is an essential and integral component of the generation of renewable electricity from the consented Triton Knoll array (The Triton Knoll Offshore Wind Farm Order 2013 (SI 1734/2003)).

- 7.13 Under the United Nations Framework Convention on Climate Change ("UNFCCC"), legally binding protocols can provide for targets aimed at reducing the emission of greenhouse gases from participating States. Under the Protocol agreed in Kyoto in 1997, the UK Government was committed to cutting the emission of greenhouse gases by 12.5 % of 1990 levels by 2008-2012. At a meeting on 8th December 2012

- held in Doha, Qatar, the parties to the Kyoto Protocol agreed to its extension to create legally binding emission commitments from 2013–2020.
- 7.14 Under the EU Renewable Energy Directive (2009/28/EC) the UK is required to produce 15 % of all its energy from renewable sources by 2020. In October 2014 the EU agreed its climate and energy targets for 2030. These include an EU-wide binding target for renewable energy of at least 27 % by 2030.
- 7.15 The UK’s current international and European commitments allow for the implementation of renewable energy and climate change targets to be delivered at a national level. These obligations, together with additional targets, are promoted through a variety of domestic laws and policies including:
- Climate Change Act 2008
  - Various Government White Papers
  - National Policy Statements
  - Marine Policy Statement and Marine Plans
  - National Planning Policy Framework
- 7.16 International climate change obligations, European law and UK law offer a very strong and binding combination of drivers for the development of renewable energy, with offshore wind seen as having the potential to be one of the biggest contributors both to 2020 and 2030 targets.
- 7.17 Without the development of the TKES, the renewable energy benefits of the Triton Knoll array will not be realised. In his previous decision the Secretary of State recognised the important contribution that the Triton Knoll array would make and has subsequently accepted that the TKES is nationally significant, by virtue of its direct association with securing the successful generation from the consented array.

## 8 PROJECT OUTPUTS

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### Project outputs

- 8.1 There is a predicted shortfall in energy due to increased demand and the decommissioning of existing power stations. In addition, the Government is committed to ensuring that 15 % of the national energy needs are met from renewable sources by 2020.
- 8.2 Triton Knoll is a proposed offshore wind farm with a capacity of up to 900MW, which equates to enough electricity for approximately 800,000 households. The delivery of the Triton Knoll Offshore Wind Farm will therefore make an important contribution towards the achievement of the Government's 15% renewable energy target and will also contribute towards closing the predicted 22GW energy shortfall.
- 8.3 RWE Innogy UK and Statkraft UK are committed to providing energy in a reliable and sustainable manner and believe that the ability to generate electricity from renewable sources is central to the development of a more diverse and sustainable energy portfolio. Commercial scale projects, utilising the power of natural and sustainable resources, generate electricity cleanly, efficiently and cost-effectively. The TKES is proposed with these core values in mind. The TKES highlights RWE Innogy UK and Statkraft UK's commitment to making a valuable contribution to the United Kingdom's 2020 targets.
- 8.4 Drawing from experience from other RWE Innogy UK projects and from a socio-economic study completed on the project, it has been estimated the construction phase of TKES would support an average of over 300 full time equivalent jobs per year in the East Midlands region. This figure includes over 200 full time equivalent jobs supported in the region by the direct spending of the wind farm on goods and services, and the lower supply chain spending benefits captured in the region. Almost 100 further full time equivalent jobs would be supported in the East Midlands by the induced spend, arising from additional spend of direct and indirect employees in the region.
- 8.5 Of these regional impacts, it is anticipated that around 50 full time equivalent jobs per year will be supported in Lincolnshire over the estimated five-year construction period.
- 8.6 Nationally, it is estimated that the TKES works will support around 500 full time equivalent jobs per year in total over the estimated five-year construction period.
- 8.7 Further details and context is provided in Volume 3, Chapter 3 ('Socio-economics, Tourism and Recreation') of the ES (section 'Environmental assessment: construction phase').

- 8.8 Significant benefits are likely to be realised by people living in the surrounding regions of the East Midlands, Lincolnshire, Yorkshire, the Humber, and the East of England.
- 8.9 Construction of the wind farm presents opportunities for local economic benefit and employment. Whilst TKOWFL will follow current legislation and go through a competitive tender process for each part of the works, it is normal to expect local suppliers and contractors with appropriate skills to be well placed to win some of the contracts. The experience of TKOWFL's parent companies in constructing other offshore wind farms in the UK is that the construction of the onshore infrastructure can support local business, such as hotels, pubs, cafes and taxi services because of the large number of people involved in the construction.
- 8.10 As part of the community investment fund for Triton Knoll, up to £500,000 will be allocated into local communities during the onshore construction works and up to a further £40,000 annually into areas neighbouring the above ground electrical infrastructure, during the operational life-time of the wind farm.<sup>9</sup>

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<sup>9</sup> Figures subject to review following confirmation of final installed capacity.

## 9 DELIVERY AND FUNDING

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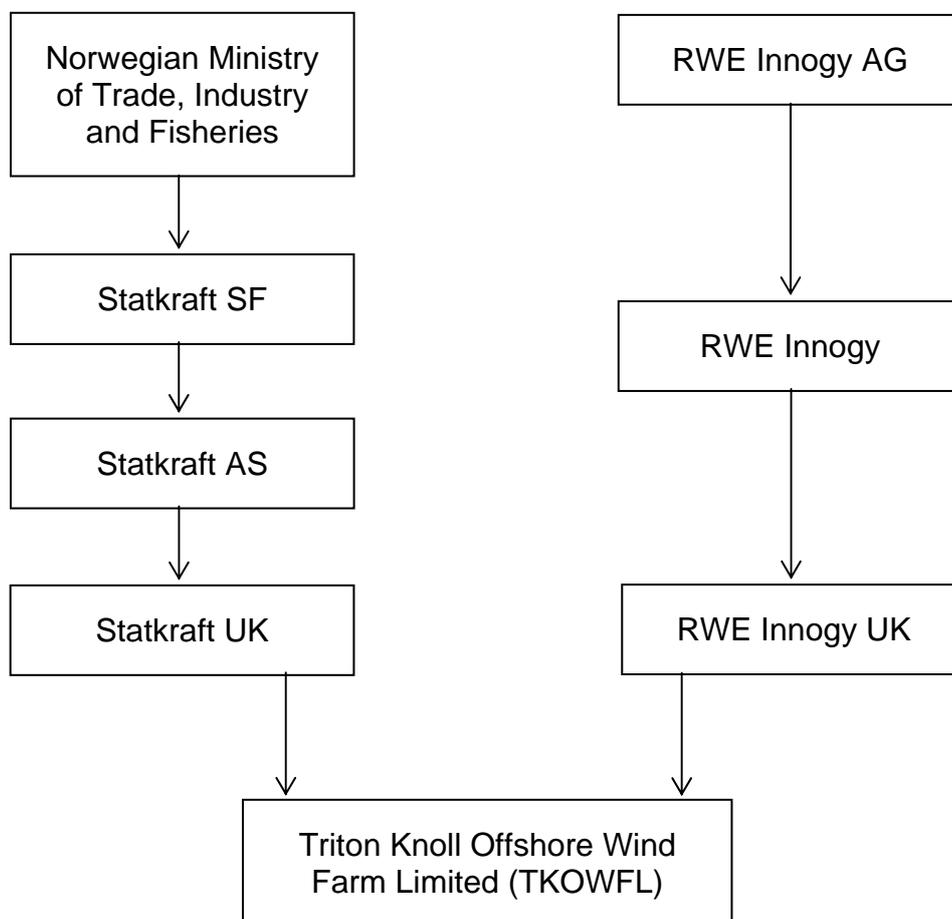
### Track record

- 9.1 Section 3 of this Statement introduces Triton Knoll Offshore Wind Farm Limited (TKOWFL) as the Promoter of the TKES. This section provides details of the parent companies, RWE Innogy UK and Statkraft UK Limited.
- 9.2 RWE Innogy UK is the UK subsidiary of RWE Innogy and one of the UK's leading renewable energy developers and operators.
- 9.3 RWE Innogy pools the renewable energy expertise and generating plant of the RWE Group, and currently has 3.1 GW of renewable capacity in operation. RWE Innogy is fully committed to growth in renewable energy across Europe and the UK continues to play a significant role. RWE Innogy are committed to developing and operating renewable energy projects to produce sustainable electricity. The company operates 22 hydroelectric power schemes, 32 onshore wind farms and two offshore wind farms, including the UK's first major offshore wind farm, North Hoyle. RWE Innogy UK is a sister company to RWE npower, a leading UK energy company with around 5.4 million customer accounts.
- 9.4 RWE Innogy UK has an impressive track record of delivering significant energy infrastructure either alone or as part of joint ventures.
- 9.5 Examples of RWE Innogy UK's track record of delivery in the UK include:
- North Hoyle – This was the UK's first major offshore wind farm. The project is located 4-5 miles off the North Wales coast between Rhyl and Prestatyn and comprises 30 wind turbines, each rated at 2 MW. Built in 2003, the project is now fully operational and produces enough clean, green electricity each year to meet the needs of approximately 40,000 homes. It cost £78 m to build.
  - Rhyl Flats – This was built after North Hoyle. The wind farm is situated 5 miles off the north Wales coast, in Liverpool Bay, with an installed capacity of 90 MW. Rhyl Flats was constructed throughout 2008 and 2009 and generated its first green energy on 15 July, 2009. It cost £190 m to build.
  - Construction of the Greater Gabbard Offshore Wind Farm ("GGOWF") (a 50/50 joint venture with Scottish and Southern Energy) has now been completed. GGOWF has a capacity of 504 MW. The estimated cost of delivering GGOWF was £1.3 billion, which at the time was the single largest investment in the UK electricity supply industry since Sizewell B nuclear power station.
  - Gwynt y Môr – This represents a total investment of more than £2 billion, will consist of 160 turbines and is being built by RWE Innogy UK in Liverpool Bay,

off the North Wales coast. The project is being funded by RWE Innogy, in partnership with Stadtwerke München GmbH, and Siemens AG. Once operational, Gwynt y Môr will have an installed capacity of 576 MW, using Siemens 3.6 MW turbines and generators. It will be capable of generating enough energy to meet the average annual energy needs of around 400,000 homes. The wind farm is due to be fully operational in early 2015. The onshore connection works are complete, including the new onshore substation.

- 9.6 In addition to the projects already generating electricity and under construction, RWE Innogy UK has also been awarded rights to develop the Dogger Bank (Round Three) Zone. A DCO has been granted for the first two projects, Dogger Bank Creyke Beck, which has a total generating capacity of up to 2.4GW. The examination phase of two further projects, Dogger Bank Teesside, with a further generating capacity of 2.4 GW has recently closed. The Dogger Bank zone is being jointly developed by the Forewind consortia, of which RWE Innogy UK have a 25 % stake alongside SSE, Statoil and Statkraft.
- 9.7 Statkraft is a leading company in hydropower internationally and Europe's largest generator of renewable energy. Statkraft UK Limited is the UK subsidiary of Statkraft Group. The Group produces hydropower, wind power, gas power and district heating and is a global player in energy market operations. Statkraft has 3,700 employees in more than 20 countries.
- 9.8 Statkraft AS is the parent company of Statkraft UK. Statkraft AS is fully owned by Statkraft SF, which is 100% owned by the Norwegian Ministry of Trade, Industry and Fisheries.
- 9.9 Since 2006, Statkraft has invested £1.4 billion in the UK's renewable energy infrastructure and provided 2.5 GW of renewable energy Power Purchase Agreements ("PPAs"). Statkraft's renewable energy generation assets have a capacity of 900 MW and the company is the majority owner and operator of three onshore wind farms, a major shareholder in two offshore wind farms, and owns and operates the largest hydropower plant in England and Wales.
- 9.10 Statkraft entered the offshore wind sector in 2009, and has since been working towards implementing its strategy to become a lead developer in all phases of the project life cycle. In 2014 Statkraft took over operations and maintenance responsibility for the 317MW Sheringham Shoal offshore wind-farm. In July 2014 Statkraft, in partnership with Statoil (as operator) and Masdar, made an investment decision on the 402MW Dudgeon offshore wind farm in the Greater Wash.
- 9.11 Statkraft and RWE are members of the Forewind consortium, looking to bring forward consents for the Dogger Bank offshore wind zone in the North Sea. Forewind secured consent for the first two projects, of 2,400MW, in February 2015, with a further up to 2,400MW expected to follow in August 2015.

- 9.12 RWE Innogy and Statkraft are global leaders in renewable energy, long term investors in the UK renewables sector and together have interest in more than 6,500MW (pro rata) of offshore wind assets<sup>10</sup>.



**Figure 5: Triton Knoll Offshore Wind Farm ownership structure.**

## Funding

- 9.13 Details of the proposed funding for the implementation of the TKES and the compulsory acquisition of the Order Land are contained in the Funding Statement (Application Document 4.2) which accompanies the Application.
- 9.14 In summary, the Funding Statement confirms that TKOWFL has taken professional advice regarding the estimated cost of acquiring the land and interests required to

<sup>10</sup> Figure relates to construction, operation and development.

- deliver the TKES and is satisfied that the requisite funding is available to meet this cost.
- 9.15 The funding required in relation to land assembly can be provided by TKOWFL and/or its two parent companies (RWE Innogy UK and Statkraft UK). Both groups have made allowances for the cost of funding the land assembly for TKES, as they would with any large infrastructure project they undertake, and have ensured that the necessary funds will be available when they are due.
- 9.16 While it will not therefore be necessary to obtain any third party funding in respect of the land assembly requirements of TKES, there is potential for third party funding to be considered as an option.
- 9.17 In addition, to provide the Secretary of State with sufficient comfort that TKOWFL will have the financial means available to discharge its compensation liability arising from the exercise of compulsory purchase powers pursuant to the Order, TKOWFL has proposed a mechanism in the Order (Article 38) to ensure that compulsory purchase powers are not exercised until a form of security or guarantee (approved by the Secretary of State) has been put in place. Further detail on the effect of Article 38 is provided in section 3 of the Funding Statement.

### **Other Agreements and Consents**

- 9.18 As is typical for offshore wind farms of this nature, an interest is being taken in respect of the offshore seabed from the Crown Estate. This takes the form of an Agreement for Lease and subsequent Lease to be granted by The Crown Estate in favour of TKOWFL. The Agreement for Lease was completed in 2010.
- 9.19 The Lease will permit TKOWFL to install wind turbine generators, inter connecting cables, cables to the shore and ancillary structures with a capacity of not less than 600MW and not more than 900MW.
- 9.20 TKOWFL has been granted a generation licence by Ofgem.
- 9.21 As part of the Application, a deemed Marine Licence will also be applied for within the Order.
- 9.22 Other consents that are required for the TKES are construction related and, with the agreement of the various consenting bodies, will be sought before construction commences.

### **Development programme**

- 9.23 In order to remain on programme to meet the requirements of The Crown Estate Agreement for Lease (and subsequent Lease) (see above), an agreement was reached with National Grid Electricity Transmission (NGET) for connection to the electricity transmission system in 2009.

- 9.24 A subsequent reconsideration of the options for the connection of Triton Knoll to the grid in 2010 and 2011 resulted in a new connection agreement being reached between TKOWFL and NGET in 2013. The connection selection process is explained in detail in the Interface Selection Assessment Report (Application Document 8.18).
- 9.25 The connection agreement obliges NGET to prepare a Connection and Use of System Code (“CUSC”) setting out the terms of the arrangements for connection to, and use of, the national electricity transmission system by TKOWFL.
- 9.26 The onshore cables are proposed to be put in place in a single construction period. It is anticipated that the duration of this period of cable installation will be approximately 4.5 years. The anticipated start date for construction is 2017.
- 9.27 The Triton Knoll programme requires the construction of the onshore works to commence at least one year before the commencement of the offshore works. The onshore works are estimated to take longer to complete than the offshore works. To maximise efficiency of the TKOWF, both onshore and offshore elements must be ready to be integrated at the same time. The construction of the onshore elements are therefore on the ‘critical path’ and any delay directly impacts on the planned completion date of the project as a whole.
- 9.28 Typical timescales for a scheme of the scale of the TKES are summarised in the table below and explained in more detail in Volume 3, Chapter 1 of the ES (Application Document 6.2). The final construction programme will be a result of logistical, contractual, practical, supply chain and electrical (including outages) influences. The table therefore provides indicative timescales for the project, assuming that all aspects of it are unhindered by unforeseen circumstances.

| Activity                         | Typical length | Total Period | Indicative commencement |
|----------------------------------|----------------|--------------|-------------------------|
| Onshore cable                    | 42 months      | 54 months    | 2017                    |
| Substation                       | 65 months      | 71 months    | 2017                    |
| Intermediate Electrical Compound | 46 months      | 54 months    | 2017                    |
| Offshore                         | 12 months      | 24 months    | 2018                    |

- 9.29 The confirmation of the powers of compulsory acquisition in the Order is therefore necessary to ensure that the land and interests required for the TKES can be assembled in a reasonable timescale to meet these requirements.

## CPO POWERS AND GUIDANCE

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### CPO powers and guidance

- 9.30 Section 120 of the 2008 Act prescribes those matters which may be provided for in a development consent order (“DCO”). In particular, a DCO may impose requirements in connection with the development for which consent is granted. Sections 120(3) and 120(4) go on to provide that a DCO may make provision relating to, or to matters ancillary to, the development for which consent is granted.
- 9.31 Those matters are listed in Part 1 of Schedule 5 to the 2008 Act and they include
- the acquisition of land, compulsorily or by agreement; and
  - the creation, suspension or extinguishment of, or interference with, interests in or rights over land (including rights of navigation over water), compulsorily or by agreement.
- 9.32 Section 122 of the 2008 Act provides that a DCO which includes powers of compulsory acquisition may only be granted if the conditions in Sections 122(2) and 122(3) of the 2008 Act are met. These conditions are:
- Under Section 122(2), that the land is:
    - Required for the development to which the development consent relates (section 122(2)(a));
    - Required to facilitate or is incidental to that development (section 122(2)(b)); or
    - Replacement land which is to be given in exchange for the order land under Section 131 or 132 (section 122(2)(c)); and
  - Section 122(3) requires that there is a compelling case in the public interest for the land to be acquired compulsorily.
- 9.33 The Guidance (Planning Act 2008: Guidance Related to Procedures for the Compulsory Acquisition of Land, published September 2013) at paragraphs 6 and 7 explains that before any compulsory acquisition can be authorised, the Secretary of State must be satisfied that one of the Section 122(2) conditions is met and the applicant must therefore be prepared to justify its proposals for the compulsory acquisition of any land to the satisfaction of the Secretary of State.
- 9.34 Paragraphs 8-19 of the Guidance go on to explain some of the factors which the Secretary of State will have regard to in deciding whether or not to include a provision authorising the compulsory acquisition of land in a DCO.

- 9.35 With regard to Section 122(2)(a) - that the land is required for the development to which the development consent relates - the Guidance (paragraph 11) requires the applicant to demonstrate to the satisfaction of the Secretary of State that the land in question is needed for the development for which consent is sought. The Secretary of State should be satisfied, in this regard, that the land to be acquired is no more than is reasonably required for the purposes of the development.
- 9.36 With regard to Section 122(2)(b) - that the land is required to facilitate or is incidental to the proposed development – the Guidance (paragraph 11) requires the Secretary of State to be satisfied that the land to be taken is no more than is reasonably necessary for that purpose and is proportionate.
- 9.37 With regard to Section 122(2)(c) – exchange land - the Order Land does not include any such replacement land to be given in exchange under section 131 or 132 of the 2008 Act.
- 9.38 In relation to the condition in Section 122(3), the Guidance requires (paragraphs 12 and 13) the Secretary of State to be satisfied that there is a compelling case in the public interest for the land to be acquired compulsorily. For this condition to be met, the Secretary of State will need to be persuaded that there is compelling evidence that the public benefits that would be derived from the compulsory acquisition will outweigh the private loss that would be suffered by those whose land is to be acquired. Parliament has always taken the view that land should only be taken compulsorily where there is clear evidence that the public benefit will outweigh the private loss.
- 9.39 Paragraphs 20 to 22 of the Guidance provide a number of general considerations that the Promoter must demonstrate to the satisfaction of the decision maker:
- That all reasonable alternatives to compulsory acquisition (including modifications to the scheme) have been explored;
  - That the proposed interference with the rights of those with an interest in the land is for a legitimate purpose and is necessary and proportionate;
  - That the promoter has a clear idea of how it intends to use the land which it is proposing to acquire;
  - That there is a reasonable prospect of the requisite funds becoming available;
  - That the compulsory acquisition of land meets the two conditions in section 122 and is therefore justified in the public interest at that time;
  - That the purposes for which an order authorises the compulsory acquisition of land are legitimate and sufficiently justify interfering with the human rights of those with an interest in the land affected.

## 10 THE NEED FOR COMPULSORY ACQUISITION – SECTION 122(2) OF THE 2008 ACT

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### Introduction

10.1 This section sets out TKOWFL’s explanation of the requirement for the Order Land, TKOWFL’s approach to the land acquisition required, and the difference between the various rights that are necessary to deliver the TKES.

### Requirement for the Order Land (Section 122(2) and 122(3) of the 2008 Act

10.2 Each plot of land described in the Book of Reference (Application Document 4.3) and shown on the Land Plan (Application Document 2.3) is required either for the purposes of the TKES, or is needed to facilitate, or is incidental to the project.

10.3 However, rather than seek to acquire the freehold title to all of this land, TKOWFL is taking a proportionate approach and is seeking acquisition of a combination of freehold title and permanent rights (such as rights of access and rights to install and maintain cables) as well as temporary possession powers. TKOWFL is also seeking the imposition of ‘restrictive covenants’ (positive rights) to prevent interference with the underground infrastructure forming part of the TKES and thus any associated damage to the infrastructure or injury to members of the public. This approach is explained in more detail below.

10.4 Articles 15 to 22, 24, 28, 29 and 31 of the Order relate to compulsory acquisition, with the primary provisions being the following:

- Article 15 (Compulsory Acquisition of Land);
- Article 17 (Time limit for exercise of authority to acquire land compulsorily);
- Article 18 and Schedule 5 (Compulsory Acquisition of Rights);
- Article 19 (Private rights); and
- Article 20 (Power to override easements).

10.5 There are a number of associated provisions, such as those contained within Article 13 (Authority to survey and investigate the land), Article 25 and Schedule 7 (Temporary use of land for carrying out the authorised project), and Article 26 (Temporary use of land for maintaining the authorised project) which are not strictly powers of compulsory acquisition but which are relevant to TKOWFL’s approach to land acquisition, and are therefore addressed in this Statement.

- 10.6 The following sections identify the approach of TKOWFL to land acquisition and the nature of the interests required.

### **The approach of TKOWFL to land acquisition for the TKES**

- 10.7 TKOWFL has sought to acquire the rights and interests in land which are required to deliver TKES through private treaty negotiation. Details of the negotiations to date are set out in section 6 of this Statement.
- 10.8 TKOWFL considers that it has taken a proportionate approach to land assembly, having regard to the impact on those holding interests in the Order Land. TKOWFL has sought to acquire only such land and/or interests which are absolutely necessary for the TKES to proceed.
- 10.9 Notwithstanding the substantial efforts which have been made to seek to acquire interests in land by way of voluntary agreement, as at the date of the Application TKOWFL has been unable to secure those interests by negotiation. It is therefore necessary to seek a range of compulsory powers, including temporary possession powers, to enable delivery of the TKES.
- 10.10 Negotiations to acquire interests by private treaty will continue in parallel with the Development Consent Order process. Where an agreement is reached with the owner of any part of the land required for the cable route, that land, save where expressly stated otherwise, will be retained as part of the Order Land. This will enable TKOWFL (and its successors) to override, suspend or extinguish any third party interests that may subsist in the land which might otherwise delay, impede or prevent the implementation or operation of TKES. This is the approach recommended by the Department for Communities and Local Government in paragraph 26 of its *Guidance related to procedures for the compulsory acquisition of land* (2013), which has been endorsed through decisions such as those relating to the Galloper Wind Farm Order 2013 and the Rampion Offshore Wind Farm Order 2014.

### **Nature of the land interests required for the TKES**

- 10.11 In summary, and by reference to the parcels of land shown on the Land Plan (Application Document 2.3), the land interests required for the TKES are as follows:
- Freehold Title – Required for above ground infrastructure such as the new substation to the north west of the existing National Grid Bicker Fen substation. Where the acquisition of the freehold title to land is required, this land is shown coloured pink on the Land Plan (see Article 15 of the Order).
  - Permanent Rights (including restrictive covenants) – Required to facilitate the installation and maintenance of the onshore infrastructure and to ensure its protection and continuous operation. These permanent rights, which are described

in the Book of Reference (Application Document 4.3) as ‘packages’ according to their purpose, are proposed to be secured by Article 18 (Compulsory acquisition of rights) and Schedule 5 (Land in which only new rights etc. may be required) of the Order. The land in respect of which permanent rights are sought is shown coloured yellow on the Land Plan.

- Temporary Possession Powers (construction compounds and access only) – Required for the purpose of access to and/ or use as a temporary construction compound during the construction phase only. Land subject to powers of temporary possession only, pursuant to Article 25(1)(a)(i) of the Order, is detailed in Schedule 7 (Land of which temporary possession may be taken) of the Order and shown coloured blue on the Land Plan.

As noted at paragraph 4.63, two temporary construction compounds have been included at the point where the proposed new access road for the Triton Knoll substation abuts the A17 main road (plots 44/03a and 44/03b on sheet 44 of the Land Plan (Application Document 2.3)). However, only one of these compounds will be required. Comments were received from the relevant landowner shortly before finalisation of the Application, requesting that the compound be moved from the southern location to the northern location. However, it has not been possible to determine whether it is technically possible to utilise the northern location for a temporary construction compound prior to finalisation of the Application. Both options have therefore been included, although only one will be required and one will not be progressed.<sup>11</sup>

- Temporary Possession Power (Construction) - General powers of temporary possession are sought across the remainder of the Order Land (shown coloured pink and yellow on Land Plan), pursuant to Article 25(1)(a)(ii), in order to facilitate the construction of the TKES. Following completion of construction this land can be restored to its previous condition and returned to the relevant landowners subject to limited exceptions. TKOWFL considers that the use of such temporary possession powers reduces the need for permanent acquisition, whether by freehold acquisition or the acquisition of permanent new rights.
- Survey power – In addition to the above, by virtue of Article 13 of the Order, any land within the Order limits, or which may be affected by the authorised project, may be entered for the purpose of carrying out surveys and investigations. Land which will only be subject to the Article 13 survey power is shown coloured green on the Land Plan as explained in more detail at paragraphs 12.41 to 12.50 below

These interests are addressed in turn below.

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<sup>11</sup> As noted at paragraph 4.63 above, one of the two alternative locations for the temporary construction compound has now been agreed with the landowner and the other removed from the Order limits. Please see Appendix 16 of the Applicant's response for Deadline 3 of the Examination, *Order Limits Reduction Request* [REP3-052] in this regard.

## Freehold Title

- 10.12 TKOWFL only seeks the acquisition of freehold title to the Order Land in a limited number of circumstances for the purposes of the above-ground onshore infrastructure, including the intermediate electrical compound (Work Number 9, plot number 10/07), the Substation (Work Number 50, plot numbers 47/03, 47/04, 47/09 and 47/10), the permanent access road into the Substation (Work Number 48, plot numbers 44/02, 45/12, 45/14, 45/15, 45/17, 45/18, 45/19, 45/22, 45/24, 46/01, 46/03, 46/06, 47/02)<sup>12</sup> and transition joint bays (Work Number 3A, plot number 01/03).
- 10.13 Freehold acquisition of this land is necessary to ensure that TKOWFL (and its successors) has the necessary exclusive possession and control of the land required for the safe construction, operation and maintenance of these installations and associated infrastructure and works.

## Permanent Acquisition of new rights

- 10.14 The new rights sought by TKOWFL pursuant to Article 18 (Compulsory acquisition of rights) of the Order, which are set out in Schedule 5 (Land in which only new rights may be acquired) of the Order, are replicated in the introduction to the Book of Reference (Application Document 4.3) and separated into ‘packages’ based on their purpose. The ‘packages’ may be summarised as follows:
- “Cable Rights” - rights required in connection with/ to facilitate the installation, use and maintenance of the cables;
  - “Access Rights” - rights of access, with or without vehicles, equipment and materials, including rights to carry out minor works, such as the erection of fencing, to facilitate such access;
  - “Landfall Access Rights” - rights of access from the public highway to landfall, with or without vehicles, equipment and materials, including rights to carry out works, such as surfacing and upgrading, to facilitate such access;
  - “Unlicensed Connection Rights” - rights required in connection with/ to facilitate the unlicensed works at the National Grid substation;

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<sup>12</sup> The width of the access road has been reduced to reflect the removal of the alternative temporary compound location (which no longer requires to be accessed) and to accommodate the request of the landowner to reduce the area of plots 44/02 and 45/12 and only to acquire rights over plot 45/15 as opposed to the freehold of the land. Please see Appendix 16 of the Applicant’s response for Deadline 3 of the Examination, *Order Limits Reduction Request* [REP3-052] in this regard.

- “Drainage Rights” - rights required in connection with/ to facilitate the installation, alteration, and maintenance of drainage works;
- “Associated Development Rights” - rights required in connection with/ to facilitate associated development;
- “Restrictive Covenants” - rights to prevent certain activities which may interfere with, cause damage to and/or interrupt the continuous operation of underground infrastructure forming part of the TKES.

The need/ justification for the acquisition of these rights is explained in more detail below.

#### “Cable rights”

- 10.15 As regards the extent of the proposed land acquisition for the cable route, TKOWFL is seeking to acquire new rights over no more land than is reasonably necessary for the installation and subsequent maintenance and protection of the cables. As explained in paragraphs 4.23 to 4.42 above, a limited amount of flexibility has been included to allow for the cable conduits and trenches to avoid an unforeseen obstacle; and in relation to the precise spacing of the cables which will be dependent on the particular heat dissipation characteristics of the cables when they are procured. Flexibility is also required for the spacing of the cables should electrical interference be encountered that would reduce their operational efficiency.
- 10.16 Whilst there are areas within the underground cable corridor which require an additional working width for technical reasons, the width of the corridor, including a suitable protection area, is 60m, the anticipated permanent easement width. This width will ensure that adequate space between the circuits can be maintained so that there is no interference between the cables. It will also mean that each circuit can perform to its optimum.
- 10.17 Whilst it is expected that the trenches can be easily dug out, it is possible that some unforeseen obstacle will prevent the installation; the cables are not flexible and a gentle radius would be required to work around any obstruction.
- 10.18 The 60m cable corridor width is also required to facilitate construction and to adhere to the appropriate health and safety working space requirements. Furthermore, the width provides space for topsoil and subsoil storage, and a temporary haul road for plant and machinery.
- 10.19 Within that cable corridor, TKOWFL is also proposing to use drilling techniques to cross under several rivers, roads and three railways and appropriate permanent rights are sought for these areas. The drilling activities can be accommodated within the 60m wide corridor, supported by the proposed construction work sites. At these locations it is anticipated that up to six bores would be required (one for each circuit). Relevant provisions of the Order, in addition to Article 18 (Compulsory acquisition of

rights) and Schedule 5 (Land in which only new rights may be acquired), include: Article 8 (Streets), Article 23 (Rights over or under streets) and Article 28 (Statutory Undertakers).

- 10.20 As stated in paragraph 4.6 above, trenchless construction techniques will be used at the landfall location. Up to six cable circuits are required for the TKES. However, the ES has assessed up to six separate bores to allow a level of redundancy in the event that difficulties are encountered with any individual drilling operation. The bores would be located approximately 6-7m apart within the work site area, although this would widen to 50m apart by the time the bores exit on the sea bed. Therefore, a larger area has been identified at the landfall point for the acquisition of permanent rights and the imposition of restrictive covenants.
- 10.21 The entire width of the permanent rights and restrictive covenants sought in respect of the cable easement is therefore necessary and justified. However, in order to maintain a proportionate approach to compulsory acquisition, TKOWFL intends to rely, where possible, on the powers of temporary possession during construction.

#### “Access Rights”

- 10.22 These permanent rights are required because on completion of the construction phase of the TKES, hedging, other landscaping and fencing between field boundaries which is removed to facilitate construction of the onshore cable, will be replaced. Temporary crossings over open drainage ditches will also be removed.
- 10.23 It follows that, unlike during the construction phase, it will not be possible post-construction to access many of the fields through which the onshore cables pass from neighbouring fields without removing that landscaping, and/ or reinstating temporary crossings.
- 10.24 Access may be required for the installation of cables through ducting put in place during the construction phase, and access will be required for ongoing maintenance and repair. A number of access routes have been identified to facilitate permanent access.
- 10.25 The following factors have been taken into account in the identification and selection of these routes:
- 5 metre width is required to facilitate vehicular access. Some stretches are wider if they correspond with existing access tracks which would be used by TKOWFL;
  - All access routes have been selected to utilise existing field entrances and gates; and
  - Direct routes from the public highway to the onshore cable routes have been chosen wherever feasible.

#### “Landfall Access Rights”

- 10.26 These permanent rights are required to facilitate the construction of the transition joint bays at the landfall, where the offshore cables are joined to the onshore cables, as well as to provide access to the transition joint bays for ongoing inspection, maintenance and repair.
- 10.27 Access over an existing track has been identified to facilitate permanent access. This existing track provides a direct route from the nearest public highway to the landfall. This track will require some degree of improvement (such as levelling and upgrading the surface) to accommodate construction and maintenance vehicles.

“Unlicensed Connection Rights”

- 10.28 Works are required at the National Grid substation to connect the TKES to the national grid. These works include the installation of cable ducts and cabling and the creation of connection bays housing electrical equipment. Access will be required, as will the ability to store plant and materials, to undertake these works. National Grid is not required pursuant to its transmission licence to carry out these works itself. Therefore permanent rights are required to enable these works to be undertaken by TKOWFL, together with the ongoing maintenance and repair of the electrical equipment.

“Drainage Rights”

- 10.29 At the IEC and Triton Knoll substation, there is a requirement to utilise existing drainage channels and systems which adjoin the footprint of the IEC and substation, to drain the land over which the electrical infrastructure will be located. It is not necessary for TKOWFL to permanently acquire these strips of land in order to utilise them. Rather, the requirement is for the right to access and undertake works (including maintenance) within the existing drainage systems so that the land over which the electrical infrastructure will be located can be adequately and efficiently drained.

“Associated Development Rights”

- 10.30 In addition to the rights which are required to facilitate the principal development of the TKES, there is also a requirement to undertake development which is associated with, and subordinate to, the principal development, and which is necessary to support the construction and operation of the TKES.
- 10.31 This associated development includes:
- Access arrangements, such as the formation of new or improved accesses to work sites; and works to enable the safe delivery of plant and materials to work sites;

- Development to mitigate impacts, such as landscaping, surface water management systems, and the creation of compensatory habitats;
- Other works, such as the relocation of statutory undertakers' equipment; the creation of material stores and stockpiles; the use of temporary and support structures; and works associated with the installation of the cables.

“Restrictive covenants”

10.32 As explained above, permanent rights are required over the land coloured yellow on the Land Plan in connection with the installation, use and maintenance of the underground cables. Restrictive covenants are also required in respect of this land to protect the cables and associated apparatus from interference by, and/ or damage resulting from the actions of, the owners and occupiers of the land, and to protect any such persons from associated physical harm or injury.

10.33 The details of the restrictions sought are set out in Schedule 7 of the Order and were refined during the TKES examination. In summary, the restrictions will prevent any actions that would undermine, damage or interfere with the free flow of electricity through the cables, including to:

- prevent building, construction, erection, or any other works requiring foundations or footings;
- prevent the provision of hard surfacing that would restrict/ make access to the cables/ associated apparatus more difficult;
- prevent mole draining and other agricultural practices exceeding 0.6m in depth and any increase or decrease of the ground level; and
- prevent the planting or growing of trees or shrubs that may cause damage to the cables/ associated apparatus.

10.34 These restrictions largely reflect those which are being sought in the private treaty agreements with third parties, and TKOWFL considers that the compulsory acquisition of these restrictions is necessary for the following reasons:

- The cables will conduct electricity at very high voltages and any tampering or interference by owners or occupiers of the land could result in serious injury and potentially be fatal. It is therefore essential that suitable and enforceable restrictions are placed on the title to ensure the health and safety of the owners and/ or occupiers of the land;
- Should damage to the cables occur it would be extremely costly to repair, potentially requiring new cables to be installed and connected to replace damaged ones. Since live working would not be possible while repairs are effected, the electricity supply would be disrupted which would not be in the public interest.

- Although landowners/ occupiers are encouraged to contact utility operators before commencing work in the vicinity of underground electricity infrastructure, protection for such infrastructure is not available elsewhere in legislation. For example, no such protection is afforded by the Electricity Safety, Quality and Continuity Regulations 2002 and the outright acquisition of the land to ensure protection of the cabling and associated apparatus could result in the permanent and avoidable sterilisation of land.
- 10.35 The imposition of restrictive covenants along the route of the cables so as protect equipment is therefore an essential requirement of the TKES, and TKOWFL considers that its approach in seeking to impose restrictive covenants is a necessary, appropriate and proportionate approach to adopt.
- 10.36 The Secretary of State has the power under Section 120 of the 2008 Act and Part 1 of Schedule 5 to make a development consent order that includes provisions for the creation, suspension or extinguishment of, or interference with, interests in land or rights over land. Section 120(5)(c) of the 2008 Act enables the decision-maker, when granting a development consent order, “*to include any provision that appears to the [decision-maker] to be necessary or expedient for giving full effect to any other provision of the order*” and Section 120 (2) and (3) and paragraph 3, Part 1, Schedule 5 allows the decision-maker to include provision for “*The abrogation or modification of agreements relating to land*”.
- 10.37 There may be a question as to whether the 2008 Act can authorise the imposition of a ‘restrictive covenant’ in the conventional sense. However, the Planning Inspectorate’s *Advice Note 15: Drafting Development Consent Orders (October 2014)* explicitly envisages the imposition of ‘restrictive covenants’ when justified; paragraph 26.1 of that guidance stating that:
- “*It may be appropriate to include a power to impose restrictive covenants over part of the land which is subject to compulsory acquisition or use under the DCO. Before deciding whether or not the power is justified the [decision-maker] will need to consider issues such as proportionality; the risk that the use of land above or below a structure could be sterilised if it has to be acquired outright in the absence of a power to impose restrictive covenants; or whether there is for example a policy of establishing a continuous protection zone for the infrastructure network which could be secured more efficiently with the benefit of this power.*”
- 10.38 The power to impose ‘restrictive covenants’ has also been included in a number of development consent orders, such as The Walney Extension Offshore Wind Farm Order 2014, the East Anglia ONE Offshore Wind Farm Order 2014, the Rampion Offshore Wind Farm Order 2014, and the Willington C Gas Pipeline Order 2014.
- 10.39 Whilst the powers in the above orders are termed ‘restrictive covenants’, they are in effect ‘rights’ to require land not to be used in a particular way. Such rights therefore

fall within the scope of the powers of compulsory acquisition that may be authorised by the Secretary of State pursuant to Section 120 and Part 1, Schedule 5 of the 2008 Act.

- 10.40 For the reasons set out above, TKOWFL believes it is essential for the Order to include powers to acquire the “restrictive covenants/ rights” set out at Schedule 7 of the Order. The power to impose such rights is considered to be proportionate as they are only sought over the parts of the Order Land in which the cables and associated apparatus will be installed (shown coloured yellow on the Land Plan) and in doing so, will avoid the need for such land to be acquired outright in order to provide the necessary protection.

### **Survey power**

- 10.41 Rights to undertake surveys are sought over the entire Order Land in accordance with article 13 of the Order. However, there are 8 parcels of land (which accommodate nine ponds) which have been included in the Order solely for the purposes of undertaking such surveys, and in respect of which no other form of permanent acquisition and/or temporary possession rights are sought. The relevant land parcels are located outside of the cable easement, are shown coloured green on the Land Plan and are described in the Book of Reference (Application Document 4.3).
- 10.42 These 8 parcels of land have been identified, through consultation and agreement with Natural England, as being a potential habitat for Great Crested Newts. The rights required will enable presence/ absence surveys to be undertaken prior to construction, to establish whether Great Crested Newts (GCNs) are present. These surveys must be undertaken on the land itself. If GCNs are identified as being present, suitable mitigation measures will be agreed with Natural England before construction works are undertaken in the vicinity of these areas.
- 10.43 As explained in section 6, attempts to secure voluntary agreement have been made with the landowners of the relevant parcels and negotiations are continuing with some parties. However, since voluntary access has not been available to date, TKOWFL has had to explore alternative options.
- 10.44 In February 2014 TKOWFL submitted an application to Ofgem, on behalf of the Gas and Electricity Markets Authority, for consent to access third party land under the Electricity Generation Licence (standard conditions) and Schedule 4, paragraph 10 of the Electricity Act 1989. The 8 parcels noted above were included in that application.
- 10.45 Had the application been successful, TKOWFL would have been able to carry out the necessary surveys within their seasonal constraints prior to submission of the Application.
- 10.46 In July 2014, Ofgem notified TKOWFL that they were ‘minded to refuse consent’ for the application, as they believed that there was not the requisite direct relationship

- between the proposed land to be surveyed and the generation of electricity, as required by standard licence condition 15(4). TKOWFL took a pragmatic approach and withdrew the application in order to focus on securing the necessary rights by other means. Ofgem subsequently undertook a consultation on proposed changes to standard licence condition 15(4).
- 10.47 TKOWFL then investigated the option of making an application under section 53 of the Planning Act 2008 to secure the necessary access for surveys. However at this stage of the development process, the development programme of TKES and the estimated timescales to compile the application, receive a decision and carry out the season-specific surveys, meant that this could not be done prior to submission of the DCO Application.
- 10.48 At the same time as exploring the option of making an application under section 53 of the 2008 Act, TKOWFL proposed an alternative survey strategy in consultation with Natural England. In summary, this strategy proposed that existing survey data from areas where access had been permitted would be extrapolated to provide assumptions about similar habitats, and in addition, TKOWFL would commit to undertaking surveys prior to construction, with site specific mitigation to be agreed with Natural England for any areas where the presence of GCNs had been confirmed.
- 10.49 Powers of entry are therefore being sought pursuant to Article 13 of the Order to enable surveys to be undertaken on those specified areas.

## 11 SPECIAL CONSIDERATIONS AFFECTING THE ORDER LAND

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### Introduction

- 11.1 This section deals with those parts of the Order Land for which special provision is made by the 2008 Act.
- 11.2 Significant progress has been made on securing Heads of Terms for private treaty agreements during the Examination, and Protective Provisions have been agreed with all but one of the statutory undertakers. The detail of those subsequent negotiations has not been addressed in section 6 or section 13. Rather, the Applicant refers the reader to the Update of progress for Protective Provisions and the Updated Schedule of Compulsory Acquisition submitted at Deadline 7. (The latter will be further updated for Deadline 8).

### Crown Interests

- 11.3 There are no proposals to compulsorily acquire any Crown interest. However, the proposed offshore works (Work Number 1) affect land owned and/ or controlled by the Crown Estate for which an agreement for lease has been entered into. This land is shown on the Land Plan as plot number **01a/01**.
- 11.4 The proposed onshore works (Work Numbers 2 to 56) affect Crown land and interests as follows:
- **22/20** – Mines and minerals reserved to the Crown Estate (land included in cable easement corridor).
  - **24/02, 24/09, 24/10, 25/02, 25/06, 25/11, 25/14, 25/16, 25/18, 25/19, 25/23** – Mines and minerals presumed to be reserved to Highways England Historical Railways Estate (“HEHRE”)<sup>13</sup> executive agency for the Secretary of State for Transport (land included in cable easement corridor).
  - **37/18, 37/19** – Land owned by HEHRE (land included in cable easement corridor).
  - **43/10, 43/11** – Land owned by the Crown Estate (land included in cable easement corridor and permanent rights of access).

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<sup>13</sup> Amended to reflect name change.

11.5 For the Crown Land which is required (i.e. plots 37/16, 37/17 and plots 43/10, 43/11), TKOWFL have opened discussions for voluntary agreements via their appointed agents, Ardent.<sup>14</sup> In particular:

- **37/18, 37/19** – Discussions have commenced with HEHRE via telephone and email.
- **43/10, 43/11** – Ardent have been in contact with the land agents acting on behalf of the Crown Estate (Carter Jonas). Contact has been made with the team responsible for this area of Crown Estate through post, email and telephone. The option agreement Heads of Terms (HoTs) were initially issued in December 2014 and were further updated on 25th February 2015 and a financial offer was made to secure the rights to Carter Jonas.

Further contact was received from Carter Jonas to Ardent on 12th March 2015. No further contact has been received as of the date of this Statement.

11.6 For parcels **22/20** and **24/02, 24/09, 24/10, 25/02, 25/06, 25/11, 25/14, 25/16, 25/18, 25/19, 25/23** listed at paragraph 13.3 above, the Crown has an interest in the mines and minerals. Rights for the cable easement are proposed to be exercised over other, non-Crown, interests in those parcels. The rights proposed to be acquired over these plots are not expected to prevent the future extraction of minerals.

11.7 TKOWFL sought approval from (1) the Crown Estate Commissioners, and (2) the Highways England Historical Railways Estate (each being “the appropriate Crown authority” for the purposes of section 227(5) of the 2008 Act), which confirms the relevant authority’s consent to inclusion of the following in the Order:

- provisions which authorise the compulsory acquisition of interests in land in which the authority has an interest, other than the interests of the authority; and/ or
- any other provision applying in relation to Crown land,

as appropriate, for the purposes of sub-sections 135(1) and (2) of the 2008 Act respectively.

11.8 Section 135(1) of the 2008 Act states that an order granting development consent may include provisions authorising the compulsory acquisition of an interest in Crown land only if it is an interest which is for the time being held otherwise than by or on behalf of the Crown and the appropriate Crown authority consents to the acquisition.

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<sup>14</sup> Please see the Updated Schedule of Compulsory Acquisition submitted at Deadline 7. (To be updated for Deadline 8.)

- 11.9 Section 135(2) of the 2008 Act states that an order granting development consent may include any other provision applying in relation to Crown land, or rights benefitting the Crown, only if the appropriate Crown authority consents to the inclusion of the provision in the order.
- 11.10 As explained above, the authorities referred to at (1) and (2) of paragraph 13.6 above have interests in the mines and minerals of land which is to be subject to the compulsory acquisition of rights for the purposes of installing the TKES. This land is therefore Crown land for the purposes of section 135 notwithstanding that the interests (rights) to be acquired are not Crown interests in themselves.
- 11.11 Section 135 consent is therefore being sought from the Crown Estate and the HEHRE with a view to securing this in good time before the close of the examination.<sup>15</sup>

### **Mines and minerals**

- 11.12 TKOWFL does not intend to compulsorily acquire any mines or minerals interests. However, construction of the authorised project will affect land in which there are mines and minerals interests. (Known interests are detailed in the Book of Reference (Application Document 4.3). There may however, be other such interests which are unknown at the time of writing). Article 15 (Incorporation of the mineral code) of the Order therefore incorporates parts 2 and 3 of Schedule 2 (minerals) of the Land Acquisition Act 1981 in respect of any mines and minerals under any land which has been compulsorily purchased as part of the Order. It exempts existing rights in minerals from the scope of compulsory acquisition while also providing a procedure for dealing with the situation where the owner of mines and minerals wishes to work them. While TKOWFL considers it unlikely that anyone would wish to work the mines or minerals TWOWFL does not consider that its proposed compulsory acquisition of the rights over land would prevent this.
- 11.13 As explained in the Geology, Hydrogeology and Ground Conditions baseline annex of the ES (Application Document 6.2.5.6.1) the British Geological Survey mineral resource information for Lincolnshire does not show any extant planning permissions for mineral extraction or active mineral sites within or close to, the proposed cable easement. Two extraction sites noted as being inactive are located to the north and

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<sup>15</sup> The Crown Estate Commissioners and HEHRE, as the “appropriate authority” for the purposes of section 227(5) of the Planning Act 2008 (“the 2008 Act”), submitted letters confirming consent to the making of the proposed Order, for the purposes of sub-sections (1) and (2) of section 135 of the 2008 Act, on 11 September 2015 and 6 November 2015 respectively. Please see [REP1-64] and Appendix 1 of [REP3-051] respectively.

south of the Landfall at Anderby Creek. Both locations appear to have been worked for clay in the 1950's to provide material for the repair of the sea wall.

11.14 The cable easement crosses a number of petroleum exploration & development licence ("PEDL") areas, as shown on the British Geological Survey mineral resource information map for Lincolnshire (available at [www.bgs.ac.uk/mineralsUK/planning/resource.html](http://www.bgs.ac.uk/mineralsUK/planning/resource.html)). Within these areas there are several oil wells. The closest recorded is at Sibsey, located approximately 2km south-east of the order limits. The cable easement is unlikely to prevent extraction due to the relatively shallow depth of the cables within the subsoil when compared with the usual depth of the resource; the ability to utilise directional drilling for extraction; geographic separation; and the large size of the PEDL areas in comparison to the 60m width cable easement.

11.15 The cable easement also falls inside an area where deep coal is located, according to the British Geological Survey mineral resource information map for Lincolnshire. Again, the cable easement is unlikely to prevent extraction owing to the depth at which the coal is in relation to the proposed shallow works within the easement.

### **Land held by a statutory undertaker**

11.16 Section 127 of the 2008 Act places restrictions on the compulsory acquisition of land, and rights over land, which is held by statutory undertakers for the purposes of their undertaking.

11.17 If an undertaker makes (and does not withdraw) a representation in respect of the compulsory acquisition of land which they have acquired for the purposes of their undertaking, the order may only authorise the compulsory acquisition of that land if the Secretary of State is satisfied that one of the conditions in Section 127(3) is met. The conditions are that:

- The land can be purchased and not replaced without serious detriment to the carrying on of the undertaking; or
- If purchased, the land can be replaced by other land belonging to, or available for acquisition by, the undertaker, without serious detriment to the carrying out of the undertaking.

11.18 Section 127(5) provides that if an undertaker makes (and does not withdraw) a representation in respect of the compulsory acquisition of rights over land (by the creation of a new right) that they have acquired for the purposes of their undertaking, the order may only authorise the compulsory acquisition if the Secretary of State is satisfied that one of the conditions in Section 127(6) is met. The conditions are that:

- The right can be purchased without serious detriment to the carrying on of the undertaking, or

- Any detriment to the carrying on of the undertaking, in consequence of the acquisition of the right, can be made good by the undertakers by the use of other land belonging to or available for acquisition by them.
- 11.19 As explained in section 2 above, the Order Land includes land in the ownership of NGET. TKOWFL are currently in negotiations with NGET with a view to entering into agreements to acquire an interest in their land so as to deliver the TKES. TKOWFL is hopeful that mutually acceptable terms can be agreed for a private treaty agreement, therefore avoiding compulsion, but has included this land so that certainty of acquisition is not compromised.
- 11.20 The proposed onshore works cross operational Network Rail Infrastructure Limited (“NRIL”) assets, at the interfaces of Work numbers 14 & 17, 21 & 22 and 44 & 46, where drilling under the railway is proposed. Rights have been included in the Order to take the cables under the railway (plots 18/07, 18/08, 22/12, 22/14 and 43/12), Negotiations are ongoing with NRIL regarding rights to take cables beneath the railway. It is hoped that terms can be agreed for a private treaty agreement. Schedule 8 to the Order contains protective provisions for NRIL.
- 11.21 The proposed onshore cables cross a number of assets held by Western Power Distribution, Anglian Water Services Limited, National Grid Gas plc, NGET, the Environment Agency, Internal Drainage Boards and the Canal and River Trust. TKOWFL are in discussions with all of the aforementioned bodies. TKOWFL have received template protective provisions from all of the aforementioned bodies, with the exception of Western Power Distribution.

### **Removal of apparatus and the extinguishment of rights**

- 11.22 Section 138 of the 2008 Act is engaged by Article 28 of the Order which permits the extinguishment of rights belonging to statutory undertakers and the removal, relocation or repositioning of apparatus of statutory undertakers. Article 28 is subject to the protective provisions in Schedule 8 to the Order which are to be agreed with the relevant statutory undertakers to the extent that they are required.
- 11.23 Section 138(4) of the 2008 Act provides that an order may include provision for the extinguishment of the relevant right, or the removal of the relevant apparatus, only if the Secretary of State is satisfied that the extinguishment or removal is necessary for the purpose of carrying out the development to which the order relates.
- 11.24 An overhead electricity line of Western Power Distribution (“WPD”) crosses over the footprint of the IEC (Work number 9). For safety reasons it is necessary to divert a section of the overhead line within the IEC footprint in order to construct the IEC. TKOWFL are currently in discussions with WPD to procure a private treaty agreement for the requisite diversion of the overhead lines.

## Open space land<sup>16</sup>

- 11.25 Sections 131 and 132 of the 2008 Act (as amended) set out certain procedures to be followed where any part of the land to be acquired is considered to be open space.
- 11.26 “Open space”, for the purposes of the 2008 Act, is defined by reference to section 19 of the Acquisition of Land Act 1981 and section 336 of the Town and Country Planning Act 1990 (“1990 Act”) as follows:
- “open spaces means any land laid out as a public garden or used for the purpose of public recreation, or land which is a disused burial ground.”
- 11.27 The Order Land includes a section of beach at Anderby Creek (plot 01/01, shown hexagonally cross-hatched on sheet 1 of the Land Plan and described in the Book of Reference), which is owned by Lincolnshire County Council (“LCC”) and which may be considered to be open space because it is used by members of the public for recreational purposes. This land forms part of the landfall area for TKES.
- 11.28 Attempts have been made to acquire the necessary rights over the land considered as open space by private treaty. TKOWFL’s land agents, Ardent, made the initial approach to LCC in August 2014. LCC advised Ardent in August 2014 that LCC did not wish to take up the offer of a meeting to discuss the TKES proposals at Anderby. LCC then confirmed in September 2014 that LCC did not wish to grant an easement for the TKES.
- 11.29 RWE Innogy UK (on behalf of TKOWFL) then made a direct written approach to LCC in November 2014, explaining the merits, as RWE Innogy UK saw, of entering into discussions regarding the open space land.
- 11.30 LCC responded in November 2014 reiterating that LCC was not willing to grant the necessary rights over the open space land. RWE Innogy UK responded again in January 2015, stating that RWE Innogy UK’s firm preference was to reach agreement with LCC rather than have to resort to the use of compulsory acquisition powers. No response to that letter has been received by TKOWFL. TKOWFL remains hopeful

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<sup>16</sup> In addition, please see the Joint Statement between the Applicant and Lincolnshire County Council which comprises Appendix 1 of the Applicant’s response to Lincolnshire County Council’s response to Deadline 4 [REP4-033], and the Applicant’s response to Lincolnshire County Council’s response to Deadline 5, which comprises Appendix 19 of the Applicant’s response for Deadline 6 [REP6-035].

that an agreement can be reached, however as these attempts have been unsuccessful to date, it has been necessary to include the land in the Order.<sup>17</sup>

- 11.31 The area of assumed open space (plot 01/01) broadly comprises the following:
- A grassed area, set between the sand dunes and a privately owned field;
  - Sand dunes, which are covered with vegetation and over which there are several informal paths leading to the beach;
  - An area of the beach with public access.
- 11.32 Bordering the sand dunes on the west (landward) side is a track running roughly north to south which leads from a car park in the north and which provides pedestrian access to the beach via several routes over the dunes. Part of this track (Plot 01/02) is adopted highway and maintained at the public expense. As public highways do not fall within the definition of open space for the purposes of the 2008 Act, the adopted part of the track is not included within the area of special category land.
- 11.33 It is assumed that the public have had access along the track which runs north to south, and which leads from a car park in the north. This track provides pedestrian access to the beach over several routes over the dunes. Public recreational use of the dunes themselves and of the grassed area is assumed to be limited since the dunes are extensively covered in vegetation. However, the beach is likely to be well used by the public, particularly in the summer months, for activities normally associated with a beach such as dog walking, bird watching and jogging.
- 11.34 A precautionary approach is therefore being taken by TKOWFL, which assumes that the beach constitutes public open space. This is consistent with the approach to beaches that has been taken by the promoters of orders such as The Walney Extension Offshore Wind Farm Order 2014, The East Anglia ONE Offshore Wind Farm Order 2014, The Rampion Offshore Wind Farm Order 2014 and The Dogger Bank Creyke Beck Offshore Wind Farm Order 2015.
- 11.35 It is not proposed to acquire the freehold title to any part of the open space land, but certain works are required to be undertaken at the beach (as more particularly described at paragraphs 4.5 to 4.15 above) to install underground cables and associated infrastructure. TKOWFL therefore proposes to acquire permanent rights (summarised below) in relation to Plot 01/01 (shown yellow and hexagonally cross-hatched on sheet 1 of the Land Plan) in accordance with Article 18 (Compulsory

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<sup>17</sup> Please see the Updated Schedule of Compulsory Acquisition submitted at Deadline 7. (To be updated for Deadline 8.)

acquisition of rights), Schedule 5 (Land in which only new rights etc. may be required) in order to facilitate/ enable Work number 3:

- Rights of temporary possession are sought over the land shown blue on plan 1, to facilitate both the above and below ground works associated with the installation of the cables and other works such as transition joint bays;
- “Cable Rights” - rights required in connection with/ to facilitate the installation, use and maintenance of the cables;
- “Associated Development Rights” - rights required in connection with/ to facilitate associated development; and
- “Restrictive Covenants” - rights to prevent certain activities which may interfere with, cause damage to and/ or interrupt the continuous operation of underground infrastructure forming part of the TKES.

11.36 In addition, the general temporary possession power of construction pursuant to Article 25(1)(a)(ii) is sought in respect of Plot 01/01 in order to facilitate the construction of the TKES.

11.37 The proposed compulsory acquisition of rights over land which constitutes open space engages section 132 of the 2008 Act. TKOWFL does not propose to acquire the freehold of land which constitutes open space which would otherwise engage section 131 of the 2008 Act.

11.38 Section 132 provides that Special Parliamentary Procedure is required for land which is open space unless certain exceptions (specified in subsections (3) to (5) of section 132) apply.

11.39 By virtue of subsection (3) of section 132, an exception to the requirement for Special Parliamentary Procedure is made out if the Secretary of State is satisfied that the land in question, when burdened by the new rights, will be no less advantageous to the persons in whom it is vested; other persons entitled to rights over it; and to the public at large, than it was prior to their imposition and that fact is recorded in the relevant order. TKOWFL notes that the section 132(3) exception has been successfully invoked (and a statement to that effect included) in other orders such as The Walney Extension Offshore Wind Farm Order 2014.

11.40 The works to be undertaken at the beach (work number 3) may be summarised as follows, and in total, will take place for up to 14.75 months of activity over a 36 month period (excluding the pre-construction surveys).

- Pre-construction surveys. A number of surveys will be undertaken prior to construction. These will include geophysical surveys, targeted trial trenching (informed by the geophysical surveys), technical surveys (such as topographic surveys and infiltration tests) and ecological surveys.

- Fencing. Specific areas of the beach will require to be fenced periodically. This is primarily to ensure the safety of the general public but also to provide security against the theft of materials and plant and to demarcate and segregate areas for construction activities and storage.
- Power Circuit Installation. Up to 6 High Voltage Alternating Current (HVAC) circuits (up to 200kV), each consisting of 3 main ducts (each containing an electrical cable), and 2 smaller ducts (each containing fibre optic cables) will be installed using trenchless excavation methods, such as Horizontal Directional Drilling.
- Duct stitching. This will involve the joining together of lengths of ducting which will be used to house the power circuits.

11.41 Access to the beach in order to undertake the works will be taken via a private track which is also public right of way (Hutt/10/4). As explained in paragraph 12.26 and 12.27 above TKOWFL is seeking a package of private rights to secure access along plots 01/05, 01/06 and 01/07 to get access to the beach to do the works. Public right of way Hutt/10/4 will remain open to the public during the majority of the construction period, save for when works are being undertaken to improve the access track; the temporary construction compound is being utilised; and/or trenchless construction equipment is being mobilised and demobilised. The maximum combined duration of periods of closure of the public right of way Hutt/10/4 (required to ensure public safety) will be less than 6 months. A further right of way (Hutt/10/5) crosses the land assumed to be open space. This right of way will remain open to the public during the construction period. Powers of temporary closure are sought in Article 9 of the DCO.

11.42 No works are proposed which will permanently affect the public recreational use of the open space. Nor are any permanent rights proposed which will permanently affect the public recreational use of the open space.

11.43 Although there will be temporary interference with the use of limited areas of the open space during the construction period as a result of the exercise of the rights to be acquired and the works to be undertaken, access to the remainder of the beach outside of these works will be available, and in the long term, the open space will remain unobstructed and available for the purposes for which it is currently used.

11.44 In particular:

- there will be no equipment/ apparatus above ground after construction (save for the purposes of occasional and intermittent maintenance activities associated with the underground circuits);
- the physical appearance of the open space will be unaffected; and

- the recreational and other purposes for which the open space is currently used will not be restricted/ affected by the acquisition of the proposed new rights nor the imposition of the proposed restrictive covenants.
- 11.45 Full details of the proposed works at the landfall at Anderby Creek are given in sections 5.20 to 5.96 of Volume 3, Chapter 1 ('Onshore Project Description') of the ES.
- 11.46 For the reasons explained above, TKOWFL considers that the open space, when burdened with the new rights and restrictive covenants referred to at paragraph 12.14 will be no less advantageous to LCC nor the general public than before their imposition. TKOWFL has therefore included a statement in the Order which confirms that the section 132(3) tests have been satisfied.

## 12 HUMAN RIGHTS CONSIDERATIONS

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### Human Rights considerations

- 12.1 Section 6 of the Human Rights Act 1998 prohibits public authorities from acting in a way which is incompatible with rights protected by the European Convention on Human Rights (“ECHR”/ “the Convention”).
- 12.2 The position is summarised in the Guidance (Planning Act 2008: Guidance Related to Procedures for the Compulsory Acquisition of Land, published September 2013, as referred to in section 11 above), which states that a compulsory purchase order should only be made where there is “a compelling case in the public interest”. The Guidance makes it clear that an acquiring authority should be sure that the purposes for which it is seeking compulsory acquisition powers sufficiently justify interfering with the human rights of those with an interest in the land affected. In making this assessment, a promoter should have regard, in particular, to the provisions of Article 1 of the First Protocol and Article 6 of the Convention and, in the case of a dwelling, Article 8 of the Convention. These are summarised and considered below.
- 12.3 Article 1 of the First Protocol states that:
- *“...Every natural or legal person is entitled to peaceful enjoyment of his possessions” and “no one shall be deprived of his possessions except in the public interest and subject to the conditions provided for by the law and by the general principles of international law...”*
- 12.4 Whilst occupiers and owners in the Order Land may be deprived of their property if the Order is confirmed, this will be done in accordance with the law (i.e. Section 122 of the 2008 Act). TKOWFL is only seeking the acquisition of freehold title to the Order Land in a limited number of circumstances, whereas the majority of the Order Land is proposed to be affected by new rights only. The Order is being pursued in the public interest as required by Article 1 of the First Protocol. The public benefits associated with the TKES are set out earlier in this Statement. TKOWFL considers that the Order will strike a fair balance between the public interest in the implementation of the scheme and those private rights which will be affected by the Order.
- 12.5 Article 6 of the Convention provides that:
- *“In determining his civil rights and obligations...everyone is entitled to a fair and public hearing within a reasonable time by an independent and impartial tribunal established by law”*
- 12.6 The TKES has been extensively publicised and consultation has taken place with the community and key stakeholders in the area. All those affected by the Order have

been notified, have had the right to make representations and/or objections and, if necessary, will have the opportunity to be heard at a public hearing, subject to the usual procedural rules. The statutory processes and associated right for those affected to pursue remedies in the High Court where relevant, are compliant with Article 6.

12.7 Article 8 of the Convention states that:

- *“Everyone has the right to respect for his private and family life, his home and his correspondence...interference is justified however, if it is in accordance with the law and is necessary in a democratic society in the interests of national security, public safety or the economic well being of the country, for its prevention of disorder or crime, for the protection of health or morals, or for the protection of the rights and freedom of others.”*

12.8 TKOWFL consider that such interferences as may occur with the making and implementation of the Order are in accordance with the law, pursue a legitimate aim, and are proportionate having regard to the public interest that the TKES will bring which will benefit the economic well-being of the area and further sustainable energy objectives. It is also proportionate having regard to the alternative means of securing the development of the TKES.

12.9 In designing the cable route, TKOWFL has sought to maintain a buffer from residential properties, where environmental and engineering constraints allow, and without conflicting with the principles of developing ‘an efficient, co-ordinated and economical system of electricity transmission<sup>18</sup>’.

12.10 However in one case, the cable easement crosses an area of private garden (shown as plot 12/06 on the Land Plan). To minimise the impacts on the owner-occupier, TKOWFL has committed to locating the haul road in the adjoining agricultural land parcel; and to use trenchless construction techniques (such as horizontal directional drilling) to avoid the need to create open trenches in the private garden.

12.11 Where the cable easement crosses accesses to private dwellings, TKOWFL has committed to ensuring that users of these accesses are given priority and that access for them will be maintained.

12.12 No person will be deprived of their dwelling. Measures will be in place during construction activities to ensure that the impacts on peoples’ enjoyment of their dwellings will be minimised.

12.13 Those directly affected by the Order will also be entitled to compensation which will be payable in accordance with the Compulsory Purchase Compensation Code and assessed on the basis of the market value of the property interest acquired, together

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<sup>18</sup> Electricity Act 1989, 9(2)(a) General duties of transmission licence holders.

- with disturbance and statutory loss payment. The reasonable surveying and legal fees incurred by those affected will also be paid by TKOWFL. The Compulsory Purchase Compensation Code has been held to be compliant with Articles 8 and Article 1 of the First Protocol.
- 12.14 The European Court of Human Rights has recognised in the context of Article 1 of the First Protocol that “regard must be had to the fair balance that has to be struck between the competing interests of the individual and the community as a whole”. Both public and private interests are to be taken into account in the exercise of the Promoters powers and duties. Similarly, any interference with Article 8 rights must be “necessary in a democratic society”.
- 12.15 In pursuing this Order, TKOWFL has carefully considered the balance to be struck between the effect of acquisition on individual rights and the wider public interest in the development of the TKES and facilitation of the Triton Knoll Offshore Wind Farm within the Order Land. Interference with Convention rights is considered by TKOWFL to be justified here due to the need to tackle climate change, maximise economic opportunities, secure energy supply and new energy infrastructure. The TKES will also assist the Government with their objective of working towards the target of obtaining 20% of the UK’s electricity supply from renewable sources by 2020.
- 12.16 TKOWFL is satisfied that the redevelopment of the Order Land for the TKES will have a significant positive impact on the delivery of the Government’s energy agenda. Compulsory acquisition of third parties’ land and interests within the Order Land is necessary to allow this comprehensive redevelopment to proceed and for these benefits to be delivered.
- 12.17 As such, TKOWFL has concluded that the interference with the human rights of those parties with interests in the Order Land is justified in the public interest and that the use of compulsory acquisition powers is proportionate.

## 13 RELATED CONSENTS

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### Related Consents

- 13.1 A number of additional consents are required for the Triton Knoll offshore wind farm project, which includes both the array and the electrical system. Further detail on the consents relating to the TKES is set out in the Additional Consents Document (Application Document 8.19). These consents have been separated into four categories: consents that are already in place; consents that have been dis-applied; consents that will be required; and consents that may be required.

### Consents already in place

- 13.2 The Triton Knoll Offshore Wind Farm Order (SI 2013/1734) (“the TKOWF Order”) which authorises the construction and operation of a 1200MW offshore wind farm comprising up to 288 wind turbines, inter-array cabling, offshore substation platforms and related works. The TKOWF Order also includes a deemed marine licence and came into force on 12 July 2013.
- 13.3 A direction under section 35 of the 2008 Act that the Triton Knoll Electrical Works are development for which development consent is required. This direction was made by the Secretary of State on 13 November 2013 and is the basis on which the Application for the TKES is made.
- 13.4 TKOWFL also holds an electricity generation licence under section 6 of the Electricity Act 1989. Ofgem are currently undertaking consultation on amending standard licence conditions 14 and 15 to enable access to compulsory entry powers for generators to survey the suitability of land for electric line activity.

### Consents that have been dis-applied

- 13.5 Article 6 of the draft Development Consent Order (DCO) (Application Document 3.1) dis-applies the following statutory provisions:
- Consent under section 109 of the Water Resources Act 1991 which relates to the provision of structures in, over or under a main river;
  - Consent under any bylaws made under or having effect as if made under paragraph 5, 6 or 6A of Schedule 25 of the Water Resources Act 1991 which requires consent or approval for the carrying out of works;
  - Section 23 of the Land Drainage Act 1991 in relation to the prohibition of obstructions etc in watercourses;
  - The provision of any bylaws made under section 66 of the Land Drainage Act 1991 which require consent or approval for the carrying out of works; and
  - The provisions of the Lindsey County Council (Sandhills) Act 1932.

- 13.6 The disapplication of these provisions requires the consent of the body who would otherwise have granted approval under s150 of the Planning Act 2008 and paragraph 32 of Part 1 of the Schedule to the Infrastructure Planning (Miscellaneous Prescribed Provisions) Regulations 2010. Consent is therefore being sought from the Environment Agency<sup>19</sup> and the relevant Internal Drainage Boards.

### **Consents that will be required**

- 13.7 It is expected that the following consents, which are not provided for in the DCO, will be required:
- a) a decommissioning scheme under Chapter 3 of Part 2 of the Energy Act 2004;
  - b) approvals from the relevant planning authority pursuant to the requirements contained in the DCO (see Part 3 of Schedule 1 of the DCO, Application Document 3.1);
  - c) approvals from the Marine Management Organisation (“MMO”) pursuant to the conditions contained in the deemed Marine Licence (see Schedule 9 of the DCO, Application Document 3.1);
  - d) a licence under section 10 of the Protection of Badgers Act 1992;
  - e) an environmental permit under the Environmental Permitting (England and Wales) Regulations 2010 in relation to discharge to water or groundwater;
  - f) a water abstraction licence under sections 24 or 25 of the Water Resources Act 1991;
  - g) approval from the highways authority to undertake any works to the public highway and, if necessary, completion of an agreement under section 278 of the Highways Act 1980; and
  - h) approval from (1) the Crown Estate Commissioners, and (2) the Highways Agency Historical Railways Board (each being "the appropriate Crown authority" for the purposes of section 227(5) of the 2008 Act), which confirms the relevant authority's consent to inclusion of the following in the DCO:

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<sup>19</sup> The Environment Agency submitted a letter confirming its agreement to the disapplication of these legislative provisions on 18<sup>th</sup> February 2016 [REP6-TBC]; the Internal Drainage Boards submitted letters confirming their agreement to the disapplication of these legislative provisions on the 24<sup>th</sup> of February.

- i. provisions which authorise the compulsory acquisition of interests in land in which the authority has an interest, other than the interests of the authority; and/or
  - ii. any other provision applying in relation to Crown land, as appropriate, for the purposes of sub-sections 135(1) and (2) of the 2008 Act respectively.
- 13.8 The approvals required for (a) to (c) above can only be secured once the DCO has been granted.
- 13.9 In relation to (d) a "letter of no impediment" is currently being sought from Natural England.<sup>20</sup>
- 13.10 Points (e) and (f) are construction-related and the Environment Agency has confirmed that it would be appropriate to seek them after the DCO consent is in place.
- 13.11 The consent of the Highways Authority and completion of any s278 agreement would be sought when the detailed design of any highways works has been completed following the grant of the DCO and prior to the highways works being undertaken.
- 13.12 In respect of (h) above, this is described in more detail in section 13 of this Statement.

### **Consents which may be required**

- 13.13 At this stage it is considered that the following additional consent which is not included within the DCO may be required for the TKES:
- A licence from Natural England under regulations 53 to 55 of the Conservation of Habitats and Species Regulations 2010.
- 13.14 As the survey work to date has not indicated the presence of relevant European protected species ("EPS") within the proposed development boundary it is likely that licences under the Conservation of Habitats and Species Regulations will not be required. However, as agreed with Natural England once survey access has been secured additional survey work will be undertaken to confirm the absence or presence of relevant EPS. If those surveys confirm the presence of any protected species it may also be necessary to secure a licence to permit disturbance to that species.

### **Deemed marine Licence under Marine and Coastal Access Act 2009**

- 13.15 The Model Provisions do not provide a draft deemed marine licence, and simply refer to the Food and Environment Protection Act 1985 ("FEPA") and the Coastal Protection Act 1949 ("CPA"). The licensing provisions under this legislation have

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<sup>20</sup> This letter was issued by Natural England on the 3<sup>rd</sup> of September 2015 and submitted at Deadline 1 [REP1-065.]

- been superseded by the marine licensing regime under the Marine and Coastal Access Act 2009.
- 13.16 Schedule 9 of the DCO sets out the deemed licence for the authorised development seaward of mean high water springs.
- 13.17 A draft deemed licence has been developed by TKOWFL in discussion with the MMO and other key bodies including the Maritime and Coastguard Agency. The deemed licence seeks authorisation, subject to conditions, for the following licensable marine activities:
- the deposit at sea of specified substances and articles
  - the construction of works in or over the sea and/or on or under the sea bed; and
  - the removal of sediment samples for the purposes of informing environmental monitoring.
- 13.18 Such activities are authorised in relation to the construction, maintenance and operation of the works described in the DCO below mean high water springs.

## 14 VIEWS OF GOVERNMENT DEPARTMENTS

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### Views of Government departments

- 14.1 No Government departments have provided any specific direction about the scale and location of the TKES although consultation has been undertaken with the Department of Energy & Climate Change (DECC) throughout the development of the TKES.

## 15 A COMPELLING CASE IN THE PUBLIC INTEREST – SECTION 122(3) OF THE 2008 ACT

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### A compelling case in the public interest – section 122(3) of the 2008 Act

- 15.1 Section 12 above demonstrates that the Order Land is needed for the TKES as shown in the Application and/or is required to facilitate that development or is incidental to the proposed development. TKOWFL has a clear idea of how it intends to use the land which it is proposing to acquire and the land to be taken is no more than is reasonably necessary for that purpose.
- 15.2 The purposes for which compulsory acquisition powers are sought are legitimate and sufficiently justify interfering with the human rights of those with an interest in the land affected. The proposed interference with the rights of those with an interest in the land is for a legitimate purpose and is necessary and proportionate.
- 15.3 TKOWFL submits that the statutory conditions in Section 122 of the 2008 Act for the inclusion of compulsory purchase powers in the Order are satisfied and considers that the tests in paragraphs 8-10 of the Guidance are met. In particular that:
- Planning and energy policy support is in place for the TKES (see section 8 above);
  - All reasonable alternatives to compulsory acquisition including modifications to the TKES have been explored (see sections 5 and 7 above);
  - There are no impediments to the delivery of the TKES and that subject to the making of the Order there is a reasonable prospect of the TKES coming forward (see section 10 above);
  - Negotiations have been undertaken with those individuals, businesses and organisations affected by the TKES (see section 6 above). These negotiations are ongoing and will be progressed in parallel with the compulsory acquisition process;
  - Human rights considerations have been taken into account at every stage in the TKES's evolution (section 14 above);
  - The TKES outputs/ benefits specified in section 9 of this Statement will outweigh the private loss that would be suffered by those whose land and/ or interests are to be compulsorily acquired.
- 15.4 Confirmation of the compulsory acquisition powers in the Order is necessary to ensure that the TKES can be delivered within a reasonable timescale to make an important contribution towards the achievement of the Government's renewable

energy targets. Without compulsory acquisition powers, the Order Land could not be assembled, the TKES would not proceed, and TKOWFL's and the Government's aims would not be achieved.

- 15.5 Accordingly, TKOWFL is of the firm view that there is a compelling case in the public interest to acquire interests in and rights over the Order Land and that the Section 122(3) condition in the 2008 Act is therefore satisfied.

## 16 CONCLUSION

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### Conclusion

16.1 TKOWFL submits that the Order should be made.

## 17 Annexes

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### Annex 1 – Representative letters requesting access to land for surveys.

**Annex 2 – Plans demonstrating levels of permission granted and permission refused for access to land for surveys.**

**Annex 3 – Representative record of responses made in response to requests for access to land for surveys (landowner details redacted).**