



Triton Knoll Offshore Wind Farm Limited Triton Knoll Electrical System

**Appendix 3: Written Summary of
The Applicant's Oral Case put at
Onshore Impacts - Issue Specific
Hearing on 17 November 2015**

Date: 30th November 2015

**Appendix 3 of the Applicant's
response to Deadline 3**

Triton Knoll Offshore Wind Farm Limited

Triton Knoll Electrical System

Appendix 3: Written Summary of The Applicant's Oral Case put at Onshore Impacts - Issue Specific Hearing on 17 November 2015

Appendix 3 of the Applicant's response to Deadline 3

Date: 30th November 2015

Triton Knoll
Offshore Wind Farm Limited
4th Floor One Kingdom Street
Paddington Central
London
W2 6BD

T: 0845 026 0562
Email: info@tritonknoll.co.uk

www.rweinnogy.com/tritonknoll

| | |
|-------------------|-----------------|
| Drafted By: | Fiona Brooks |
| Approved By: | Kim Gauld-Clark |
| Date of Approval: | 30/11/15 |
| Revision: | 1.0 |

Triton Knoll
Offshore Wind Farm Limited
**Copyright © 2015 RWE
Innogy UK Ltd**
All pre-existing rights reserved

1. Summary of The Applicant's Oral Case

Agenda Item 1 – Introduction

- 1.1 Following an introduction from the Examining Authority (ExA), the Applicant, along with other parties in attendance, introduced its representatives. The Applicant advised that brief CV's of the persons speaking on the Applicant's behalf could be made available at the hearing, the ExA responded that the CV's could be submitted for Deadline 3.

Agenda Item 2 – Opening Remarks by the Examining Authority

- 1.2 It was noted that the order in which the Agenda items were taken was amended from that published by the Planning Inspectorate on 2 October 2015. This summary follows the order of the proceedings as re-ordered.
- 1.3 The ExA noted that on Monday 9 November PINS received documentation which requested a change to the Application relating to the National Grid substation at Bicker Fen. The ExA explained that the changes will still be within the existing Order Limits of the Application, comprising a potential alteration in the location at which the proposed development might join up with the national grid within the Bicker Fen substation. The ExA recorded that it is yet to decide whether this change is to be accepted into the Examination.

Agenda Item 3 – Requests to question a person making an oral representation

- 1.4 Mr. Anthony Cox (representative from Anderby Parish Council) requested permission to directly question the Applicant during the hearing.

Agenda Item 4 - The Lincolnshire Coastal Grazing Marsh

Background to the Lincolnshire Coastal Grazing Marsh Project

- 1.5 The Applicant initially set out the background of the Lincolnshire Coastal Grazing Marsh (LCGM) project to give some context to the discussions, stating that declines in grazing marsh habitats within the Lincolnshire Coast and Marshes National Character Area (NCA 42) led to the formation of the LCGM project. The project is a partnership comprising English Heritage (EH), Environment Agency (EA), Heritage Trust for Lincolnshire, Lincolnshire County Council (LCC), Lincolnshire Wildlife Trust (LWT), Lindsey Marsh Drainage Board (LMDB), National Farmers Union (NFU) and Natural England (NE). The aim of the partnership is to conserve the heritage and wildlife of the LCGM.

-
- 1.6 The LCGM project comprises three target areas (Burgh le Marsh, Huttoft/Anderby and Saltfleetby), two of which are crossed by the proposed development area of the Triton Knoll Electrical System. These three target areas cover 9,109 ha (937 ha of grazing marsh habitat) with Burgh le Marsh measuring 2,982 ha (457 ha of grazing marsh habitat), Huttoft/Anderby measuring 606 ha (4 ha of grazing marsh habitat) and Saltfleetby measuring 5,521 ha (563 ha of grazing marsh habitat).
- 1.7 The Applicant understands that the concerns of the Lincolnshire Wildlife Trust (LWT), who are leading on this issue, are that;
- The construction works within existing grazing marsh habitats will lead to a degradation of habitat quality following reinstatement (mostly through alteration of drainage);
 - The waders and wildfowl that use the areas will be disturbed and displaced resulting in a reduction in breeding productivity or over-wintering survival; and
 - Future grazing marsh creation will be compromised.
- 1.8 Consultation regarding impacts and mitigation on LCGM project target areas has taken place throughout the pre-application and examination phases of the project, and continues with regard to mitigation measures. Consultations focused on LCGM were largely undertaken with Natural England, LWT and Roger Wardle (an independent consultant who has worked previously on the LCGM project). In total 17 meetings or conference calls were held with these parties in relation to the LCGM. These were mentioned briefly at the hearings and are set out in full in Appendix 24 of the Applicant's response to Deadline 3.

Survey Work

- 1.9 In response to oral and written submissions made in relation to the LCGM project by the LWT on the adequacy of the surveys undertaken given the limited access to some areas along the cable corridor, the Applicant clarified that survey access was available for approximately 76% of the proposed development boundary, the remainder within the proposed development boundary (24% of the 435 ha of the onshore development area) was subject to aerial surveys owing to landowner permission being unavailable (ES, Volume C, Chapter 4, paragraph 4.46). The efforts made to gain land access and the reasons provided for refusal (where applicable) are provided in the Statement of Reasons (paragraphs 6.10 – 6.29 of Appendix 40 of the Applicant's submission for Deadline 1).
- 1.10 The terrestrial ecology surveys, in areas where land access was granted, were undertaken following standard methodologies that were agreed as suitable prior to the submission of the application during the Evidence Plan process with Natural England and the LWT (document reference 8.16, see Appendix 1; Annex B). This agreement is mirrored in Statements of Common Ground (SoCG) with Natural England (paragraph 4.66, Appendix 18 of the submission for Deadline 2), LWT (paragraph 4.21, Appendix

17 of the submission for Deadline 2), Lincolnshire County Council (paragraph 4.96, Appendix 30 of the Applicant's response to Deadline 1) and East Lindsey District Council (ELDC) (paragraph 8.6, Appendix 20 of the Applicant's response to Deadline 2). Further information on the survey specification is provided in the Applicant's response to ExA question Eon 1.7 in paragraphs 3.646 to 3.656 in the response to Deadline 1.

- 1.11 Where no access was granted satellite images were used to classify habitats. Concerns regarding the reliance on satellite images to classify habitats and assess potential for the presence of protected species have been raised by LWT in their Relevant Representation (RR 166) and again in their answer to ExA question Eon 1.6i. The Applicant recognised this limitation in the ES (Volume C, Chapter 4, paragraphs 4.46 and 4.47), but notes the agreements on appropriate use of the data reached during the Evidence Plan process (document reference 8.16, see Appendix 1; Annex B) and in the SoCG with Natural England (paragraph 4.65, Appendix 18 of the submission for Deadline 2) and with LWT (paragraph 4.20, Appendix 17 of the submission for Deadline 2) following post-application discussions. Further information is also provided in paragraph 3.520 of the Applicant's response to Deadline 1. The Applicant's position is that although there are limitations to the use of satellite imagery, the information gathered can be relied upon, in conjunction with site survey data and desk study information, to inform a robust assessment¹.
- 1.12 Pre-construction terrestrial ecology surveys will be undertaken and are secured by Requirement 13 of the draft DCO to ensure that suitable mitigation can be put in place to ensure legal compliance (e.g. should a newly dug badger sett be discovered), to mitigate impacts on flora and fauna (e.g. if particular features of interest are identified in areas only subject to aerial survey) and to inform the planning of the habitat restoration. These surveys are outlined in the Outline Landscape Strategy and Ecological Management Plan (document reference 8.8), alongside details of the role of the Ecological Clerk of Works. The Order Limits have been defined to ensure access to necessary features (e.g. ponds) is available, even if the areas lie outside of the working area.

Selection of the landfall site as it relates to the LCGM

- 1.13 The ExA queried whether alternative locations for the landfall have been identified given the greater community support for the Anderby Creek South landfall site. The

¹ Post hearing comment - LWT in their Relevant Representation (RR 166) requested that the Local Wildlife Site identification criteria were used with existing data gathered in areas where land access had been granted, this response was repeated in LWT's answer to ExA question EOn 1.6ii. This exercise was carried out following discussions with LWT and it was concluded that the results did not alter the evaluation within the ES (Volume C, Chapter 4); this is agreed in the SoCG with LWT (paragraph 4.22, Appendix 17 of the submission for Deadline 2).

Applicant highlighted that the site selection process was agreed as resulting in a suitable landfall point by Natural England (paragraph 4.22 of Appendix 18 of the Applicant's response to Deadline 2) and LCC (paragraph 4.21 of Appendix 30 of the Applicant's response to Deadline 1) (it should be noted that LCC have since changed the status of the SoCG to draft but have not updated their position in relation to the landfall, as such the Applicant assumes that this is still agreed as previously indicated by LCC). ELDC agreed that the landfall point is the least harmful identified during the site selection process (paragraph 5.6 of Appendix 20 of the Applicant's response to Deadline 2) and LWT agreed that suitable mitigation measures can be implemented at the landfall to ensure impacts during construction and operation on biodiversity are negligible (paragraph 4.7 of Appendix 17 of the Applicant's response to Deadline 2).

- 1.14 Anderby Creek North was preferred to Anderby Creek South, with regards to biodiversity, based on the presence of a Local Wildlife Site owned by LWT over which there were existing plans to create permanently flooded areas to support reed beds and associated habitats. Due to the LWT's habitat creation plans they could not countenance the positioning of TJBs within the area (i.e. as this would prevent the flooding of parts of the site). The only alternative to enable a landfall at Anderby Creek South would be to undertake a very long trenchless crossing that would pose significant technical challenges, increase construction duration and increase costs considerably (paragraphs 3.244 – 3.247 of the Applicant's response to Deadline 1). This was confirmed by LWT in their answer to the ExA's first written questions (answer to Alt. 1.20) and at the hearing. It should be noted that both of these landfall points fall within the Anderby/Huttoft LCGM project target area.
- 1.15 In addition to issues of habitat creation, Anderby Creek South posed an issue as a landfall point as the presence of Schedule 1 breeding birds (namely marsh harrier and barn owl) had the potential to cause long delays to the duration of the construction works. Details regarding the potential delays were provided by the Applicant in response to Alt 1.22 at Deadline 1 (paragraphs 3.252 to 3.258 of the Applicant's response to Deadline 1).
- 1.16 The Applicant noted that the landfall works at Anderby Creek North will avoid sensitive habitats in the area (i.e. sand dune habitats) by the use of a trenchless crossing technique necessary to avoid the coastal defences, with the majority of works within an arable field. Although there is a desire by the LCGM project to create coastal grazing marsh habitat in this field (and the adjacent field crossed by the cable corridor), the proposed works would not prevent this activity being undertaken in the future should land owner agreement and funding be secured. This conclusion is drawn based on the mitigation agreed in the SoCG with LWT (paragraph 4.33 of Appendix 17 of the submission for Deadline 2). Further information is provided in Sections 2 and 3 of Appendix 6 of the Applicant's response to Deadline 2.

Priority Field Sites – Mitigation and Enhancement

- 1.17 With regard to representations made on the impacts of the TKES on existing grazing marsh and any future habitat creation by the LWT the ExA questioned:
- The effects on the wet grassland site;
 - The effects of cable installation on the clay substrate and if this would impact water permeability;
 - If this would make future habitat creation impossible;
 - The impacts of severance of the fields at sites D and E; and
 - What proposals the Applicant had to address these concerns?
- 1.18 The Applicant stated that In April 2015 the Applicant consulted on Lincolnshire Coastal Grazing Marsh construction methodologies with bodies including LWT, Natural England, Rodger Wardle, LCC and ELDC. Following the meeting the mitigation methods discussed were provided in writing with responses received from LWT and Natural England. These responses informed ongoing discussion on the mitigation of potential impacts on the LCGM. Content from the consultation meeting was included in the Outline Construction Method Statement (document reference 8.7.1).
- 1.19 Discussions continued with Natural England and LWT following submission of the application. This consultation led to a re-appraisal of fields within the LCGM target areas that require specific mitigation (Section 2 of Appendix 6 of the Applicant's response to Deadline 2). This discussion identified seven sites where specific mitigation was agreed as necessary. The mitigation was detailed in Table 1 of Appendix 6 of the Applicant's response to Deadline 2 and Appendix 1 of the SoCG with LWT at Appendix 17 of the submission for Deadline 2. Mitigation was agreed for six of the seven fields with activities in one field remaining under discussion with LWT (paragraphs 4.33 and 5.4 of Appendix 17 of the submission for Deadline 2). The mitigation is considered to provide the opportunity to ensure that there are no lasting impacts on any of the fields crossed (i.e. impacts reduce from minor adverse to negligible over time). It should be noted that the issues were discussed with Natural England, with whom it was agreed that the principles were robust and that the final details would be determined through negotiations between the Applicant and LWT (paragraph 4.85 of Appendix 18 of the submission for Deadline 2). Lincolnshire County Council (paragraph 4.106 of Appendix 30 of the submission for Deadline 1) and ELDC (paragraph 8.15 of Appendix 20 of the submission for Deadline 2) were content for LWT (as part of the LCGM project partnership) to determine the necessary mitigation.
- 1.20 The field where mitigation is yet to be agreed (Field 6 / previously Site E) has been subject to habitat creation in the last few years. LWT (and their independent consultant) would rather this field was avoided, crossed by HDD or had the order limits altered to more closely follow the field boundary. Despite a willingness to resolve the outstanding

issues with LWT through negotiation (the last meeting being held on 12th November 2015), the Applicant is of the view that the mitigation offered (including a narrowing of the working width to 40m when crossing the foot drains – i.e. a 33% reduction in the temporary loss of foot drains) will ensure that impacts are no more than minor adverse in the short term and negligible in the medium to long term.

- 1.21 The potential impacts of particular note to LWT on this field are associated with the disruption of foot drains (and the alignment of their reinstatement) and the potential disturbance of breeding lapwing.
- 1.22 Discussions with stakeholders suggest that there are 2 to 3 pairs of breeding lapwing that use Field 6/Site E². With regard to the disturbance of breeding lapwing, LWT have published a case study for the Lincolnshire Coastal Grazing Marsh project that notes that within the Burgh Le Marsh area 35 ha of grazing marsh has been created (including the 4.9 ha that comprise Field 6). It goes on to state that within 3 years of creation 74 pairs of breeding lapwing were attracted to this habitat, nesting at a density of approximately 3 per hectare. This suggests strongly that the disruption and disturbance of Field 6 / Site E will have no more than temporary impacts on breeding lapwing using this field as newly created/restored habitat has the ability to attract breeding birds rapidly following establishment. It also suggests that there are alternative breeding sites within close proximity for this species, noting that this species tends to breed in loose groups with nests around 10 m to 150 m apart.
- 1.23 It should also be noted that the mitigation outlined in Table 1 of Appendix 6 of the Applicant's response to Deadline 2 and Appendix 1 of the SoCG with LWT at Appendix 17 of the submission for Deadline 2 includes an undertaking to schedule the works to minimise impacts on breeding and wintering birds and to restore the site rapidly following the installation of the cable ducts. The likely outcome of these mitigation measures would be to ensure that disturbance of breeding birds either may not occur (i.e. construction takes place between the end of the breeding season and the onset of winter) or only a single season would be affected (i.e. if construction begins prior to the breeding season to avoid issues of legal compliance and thereby prevents birds nesting in close proximity to works).
- 1.24 In regards to future habitat creation the Applicant understands that LWT have concerns that installation of the cable ducts, joint bays and link boxes within arable fields within the LCGM target areas may prevent the creation of coastal grazing marsh in the future (see LWT answer to ExA question EOn 1.9). LWT are content that grassland fields will

² Post hearing comment - The UK supports around 130,000 pairs of lapwing, although it is on the red list of the Birds of Conservation Concern due to a large decline (over 50% in the last 25 years). This has largely been due to agricultural intensification – e.g. change to autumn sown cereals, earlier cutting of grassland for silage, land drainage and changes away from mixed farmland that provides habitat mosaics.

not be affected in the same way (paragraph 4.34 of Appendix 17 of the submission for Deadline 2). LWT are the only stakeholder with outstanding concerns regarding this issue as evidenced by SoCG with Natural England (paragraph 4.83, 4.87 and 4.88 of Appendix 18 of the submission for Deadline 2) and ELDC (paragraph 8.14 of Appendix 20 of the submission for Deadline 2).

- 1.25 The Applicant is of the view that the installation of the cable ducts, joint bays and link boxes will not compromise the creation of grazing marsh habitats in the future as the level of land, soil structure and drainage characteristics of the arable land in question will be restored to the current status following construction (see paragraph 5.1 of the Outline SMP document reference 8.7.5 and paragraph 2.50 of the Outline CMS document reference 8.7.1). Further it is noted that grazing marsh is often maintained without the removal of field drainage, this is achieved simply by managing the water levels in the adjacent ditches at a level above that of the drainage outfalls. Therefore, even if the disturbed substrate and ducts/sand infill did act as a preferential drainage pathway the likelihood of this preventing water levels being maintained at a high level is negligible given the burial depths.
- 1.26 In response to the ExA question regarding biodiversity enhancements the provision of biodiversity enhancements have been requested within the LWTs Relevant Representation (RR 166) and Written Representation (submitted at Deadline 1) on both grounds of planning policy and to ensure that short term construction impacts are offset and an overall gain made. Particular emphasis has been placed on enhancing Lincolnshire coastal grazing marsh habitats.
- 1.27 The Applicant has outlined the biodiversity enhancement measures to be undertaken within the Order Limits in Appendix 6 of the Response to Deadline 2. These comprise:
- 1) The establishment of 0.5 ha of wild flower rich grassland on made-ground at the landfall (i.e. surrounding the TJBs);
 - 2) Improvement of hedgerows within the proposed development boundary;
 - 3) Landscaping, planting and management of semi-natural habitats at the site of the Intermediate Electrical Compound (IEC);
 - 4) Landscaping, planting and management of semi-natural habitats at the site of the substation.
- 1.28 The Applicant is also in the process of discussing internally measures to create/improve grazing marsh habitats within the LCGM target areas. An update on whether these measures will be provided will be given to the Examining Authority as soon as information becomes available.
- 1.29 Any creation/restoration of coastal grazing marsh habitats would be provided to cover the following:

-
- 1) Short term net loss of biodiversity during the construction phase within LCGM project target areas;
 - 2) Medium to long term biodiversity gain within the LCGM project target areas.

Updated Construction Method Statement and SoCG with LWT

- 1.30 The ExA questioned the Applicant's response to the LWT relevant representation which made reference to an updated Construction Method Statement. The Applicant confirmed that it intends to submit the an updated outline Construction Method Statement and an updated SoCG with LWT which detail the mitigation measures agreed for the grazing marsh sites at a future deadline.

Agenda Item 5 –The Lincolnshire Coastal Country Park

Aims of the Lincolnshire Coastal Country Park

- 1.31 In response to oral submissions made in relation to the Lincolnshire Coastal Country Park (LCCP) by LCC suggesting that the proposed project puts the concept of the LCCP at risk, the Applicant stated that it does not believe that the TKES conflicts with the aims of the LCCP. The Applicant confirmed that the LCCP has been considered in the environmental impact assessment, including the potential effects on landscape and visual, tourism and recreation and ecology. It is a project that is promoted by LCC and ELDC and does not have any statutory designation. The Applicant considers that the LCCP has been adequately considered throughout the consultation of the project.

Enhancement proposals for the Lincolnshire Coastal Country Park

- 1.32 The Applicant confirmed that there are no specific enhancements proposed for the LCCP itself, as it has been demonstrated in the assessment that any potential impacts are manageable and have been mitigated (the assessment of impacts and any mitigation or management measures are summarised in the Lincolnshire Coastal Country Park Clarification Note – Appendix 27 of the Applicant's response to Deadline 2).
- 1.33 The ExA was referred to a specific area of enhancement included in the agreed mitigation of LCGM Field 1 / Site A at the transition joint bays, which is detailed in Table 1 of Appendix 6 of the Applicant's response to Deadline 2 and Appendix 1 of the SoCG with LWT at Appendix 17 of the submission for Deadline 2. The Applicant noted that there will be an area of raised ground to accommodate the transition joint bays. Once land used temporarily for construction has been reinstated this ground will be reseeded with an appropriate wild flower seed mix, will be similar in appearance to earth bunds which are typical within the locality and will offer biodiversity enhancement against the current arable use.

Landscape and Visual Impact

- 1.34 In response to oral representations made by LCC regarding long term landscape impacts on the LCCP and claims that the works would “scar” the landscape, the Applicant re-iterated that all TKES infrastructure within the LCCP is wholly buried below the ground, with the exception of ground-level man-hole covers, and therefore the landscape and visual impacts on the LCCP resulting from the development would be limited to temporary effects during the construction phase only.
- 1.35 The Applicant noted that there will be an area of raised ground, by up to 1.5 m above existing ground level in the arable field on the landward side of the sand dunes at the landfall, to accommodate the transition joint bays. Once land used temporarily for construction has been reinstated this ground will be similar in appearance to earth bunds which are typical within the locality.

Withdrawal of Investment

- 1.36 LCC made oral representation indicating that investment in the LCCP project by LCC may be withdrawn, should the aims of the project be compromised and the benefits not deemed economical.
- 1.37 The Applicant responded that withdrawal of investment in the LCCP project would be a great shame, and confirmed that there will be negligible operational impacts in terms of landscape and visual, tourism and recreation, and ecology. Therefore, while acknowledging that any funding decision was entirely at the discretion of LCC, the Applicant also questioned why ceasing to invest in the LCCP would be necessary, given that it is acknowledged by LC to be a long term project.

Duration of construction impacts

- 1.38 For the purpose of giving context to the temporary impacts during the construction phase the Applicant confirmed the period of construction which has been set out in the Environmental Statement (ES). Table 1-2 of Volume 3, Chapter 1, *Onshore Project Description* of the ES sets out the indicative construction periods, construction at the landfall will be up to 14.75 months of activity over a 36 month period. The Applicant confirmed that construction could be ongoing for 36 months but that there would only be construction activities taking place for up to 14.75 months in total within that period.

Agenda Item 6 – Effects of the project on Bicker parish

Substation design

- 1.39 In response to the ExA question on why the Applicant could not confirm, at this stage, if the Triton Knoll substation would be AIS or GIS the Applicant responded that it was not possible to make this decision at this stage as it was important to retain design flexibility in order not to constrain the procurement process and costs. This is as a result of the fact that different suppliers will offer different options at the pre-construction tendering phase hence a firm decision at this stage, without being able to finalise the wider substation design, could create design restrictions that could compromise the overall substation design flexibility. The decision will be made when a contractor to do the work has been identified.
- 1.40 The ExA asked whether we could provide an estimate as to what Applicant's the preference would be likely to be at this stage. The Applicant responded that given that the existing National Grid Bicker Fen substation had selected AIS technology, that proves that it could be an appropriate technology for the local conditions and therefore, that could also be the technology of choice for the Triton Knoll substation.
- 1.41 The Applicant highlighted that the need for flexibility had been had been discussed with and accepted by Boston Borough Council (BBC) and other relevant statutory consultees through the EIA Evidence Plan Process.

Selection of the substation site

- 1.42 In response to the ExA question on what factors were considered when ranking site J as the preferred site the Applicant outlined the process described in detail in document reference 8.17 *Site Selection and Design Report*. A long list of 18 sites was identified on which a high level evaluation of constraints was undertaken to reduce down to a shortlist of the 4 top ranking sites using an evaluation matrix. The constraints evaluation considered noise buffers to ensure protection of amenity for the closest residential properties and proximity to towns and villages to minimise harm to visual amenity. BBC and the public were then able to comment on the short-listed sites with weightings in the matrix altered to reflect the main concerns of the public and BBC during the Alternatives Consultation in early 2013. proximity to towns and villages etc. BBC and the public were then able to comment on the short-listed sites with weightings in the matrix reflecting the main concerns of the public and BBC. Factors that were considered for each zone include traffic and access, landscape and visual, ecological, flood risk and noise and the results of the consultation are set out in Appendix B *Alternatives Consultation Report* of document reference 8.17.
- 1.43 The Applicant confirmed that ground and site investigation data was not considered as part of the site selection process.

Changes at National Grid Bicker Fen substation

- 1.44 The ExA requested further explanation of the changes sought to the National Grid substation, The Applicant explained that the changes are requested due to National Grid informing the Applicant that there may be a need to reconfigure and possibly extend the existing Bicker Fen substation compound in relation to works not relating to TKES.
- 1.45 The Applicant clarified that there is no change being requested to the nature of the Triton Knoll Electrical System (TKES) Unlicensed Works or to the order limits of the TKES. The changes requested are to the potential relocation of the Unlicensed Works required within the substation and the location of the temporary construction compound (TCC) that is necessary for the construction of TKES' Unlicensed Works. The National Grid works required in relation to the construction of the extension of the existing substation may be outside of the existing substation boundary but the Applicant is not seeking to consent these works and these are not part of the TKES Application.
- 1.46 The Applicant confirmed its understanding is that there is capacity within the existing substation for the TKES to connect but that National Grid has an obligation to make the most efficient connection for the TKES project and for any subsequent applications, hence the potential need for reconfiguration and potential extension.
- 1.47 The Applicant refers the ExA to the Bicker Fen Extension and Re-configuration Note submitted on the 13 November 2015.

Agreements with EDF in relation to Bicker Fen Wind Farm

- 1.48 In response to the ExA question requesting an update on discussions with EDF regarding the impacts of the proposed development on the existing Bicker Fen Wind farm which was raised by EDF in their Written Representation the Applicant confirms that discussions with EDF are ongoing and that it is thought that a resolution can be reached.
- 1.49 The Applicant will submit a SoCG for the appropriate deadline once agreement has been reached.

Agenda Item 7 – Effects of the project on Orby parish

Selection of the IEC site

- 1.50 In response to the ExA question on what factors were considered when ranking the preferred IEC site the Applicant outlined the process, which was similar to that for the substation, as described in detail in document reference 8.17 *Site Selection and Design Report*. A long list of 29 sites was identified on which a high level evaluation of constraints was undertaken to reduce down to a shortlist of the 3 top ranking sites using an evaluation matrix. The constraints evaluation considered noise buffers to ensure protection of amenity for the closest residential properties, proximity to towns and villages to minimise harm to visual amenity. ELDC, other statutory bodies such as Natural England and the public were then able to comment on the short-listed sites with weightings in the matrix altered to reflect the main concerns of the public and ELDC. Factors that were considered for each zone include traffic and access, landscape and visual, ecological, flood risk and noise and the results of the consultation are set out in Appendix B *Alternatives Consultation Report* of document reference 8.17.
- 1.51 Although the Red Zone came out as the top ranking zone, ELDC stated a preference for the Brown Zone until the Vision for Skegness was put forward at which point ELDC withdrew their support for either zone.
- 1.52 The Applicant clarified that the IEC would not have been compatible with the proposed Vision for Skegness development, even if the IEC had been located to the north of the site due to the impacts, particularly noise, it would have on leisure development, and nearby caravan parks, as highlighted by the local community during consultation and the fact that a highway would have proved incompatible with potential cable routes from the site as set out in Appendix 10: *IEC: An Overview of Local Development Pressures* of Appendix A of document reference 8.17 *Site Selection and Design Report*.
- 1.53 The Applicant confirmed that the oral representation by ELDC stating that in the Council's view of the 4 options within the red zone the zone chosen is the least harmful reflects its understanding of the discussions to date.
- 1.54 The Applicant confirmed that ground and site investigation data was not considered as part of the site selection process.

Agenda Item 8 – The Viking Link Interconnector Project

Timescales

- 1.55 In response to the ExA question on when it was expected that the proposed development would be in operation the Applicant confirmed that commencement of operation of the TKES is anticipated for 2019.

Shared/ Parallel Cable Route

1.56 In response to oral representations regarding the potential to share cabling, cable routes or run parallel routes with the Viking Link Interconnector Project (Viking) the Applicant set out the principal reasons why this is unlikely to be possible;

- Both projects would need to utilise the same voltage and current technology to share cables/trenches;
- The Applicant is not over-sizing the development and will therefore be making full use of the cables for which consent is being sought for so there is no spare capacity for Viking;
- The Applicant is seeking consent for six cable trenches with adequate spacing around to allow the heat to dissipate between cables. There is not sufficient space within the order limits being sought for another developer to lay cables and still maintain sufficient spacing;
- The Planning Act does not allow one developer's application to consent another developer's cables/ trenches or for the initial developer to allow another developer to construct within their order limits;
- The Applicant cannot seek compulsory purchase rights for another development with its order limits;
- In order to allow parallel cable routes an operational and safety barrier would need to be agreed to ensure both systems could operate effectively and be maintained.

1.57 The Applicant highlighted the extensive process undertaken to identify the optimal route for the TKES and the length of time this took. Viking will need to undertake a similar process, including consultation with statutory bodies, public and landowners to identify the best route for Viking, which may not be the same as for the TKES and should not be pre-judged on the assessments carried out for TKES.

Cumulative Impacts

1.58 In response to oral representations by Natural England and Viking regarding cumulative assessment the Applicant agrees that although Viking was considered by the Applicant, it could not be cumulatively assessed as there was insufficient information to allow a complete assessment, but that Viking will have to assess cumulative impacts with the TKES.

1.59 The Applicant highlighted that the Local Authorities are likely to be the consenting authority for Viking and as such they will determine if the environmental impacts, both for the project alone and in-combination with other developments, are acceptable.

Agenda Item 9 – Habitats Regulations Assessment

- 1.60 The ExA asked Natural England to confirm that all European sites and qualifying features of European Sites had been considered by the Applicant, to which Natural England agreed that this was the case. The ExA requesting screening matrices to be provided by the Applicant and agreed with Natural England for the Gibraltar Point SPA and Ramsar, the North Norfolk and the Wash Ramsars and for the Filey Coast and Bempton Cliffs pSPA.
- 1.61 Natural England also confirmed they would provide in their Deadline 3 response clarification that even if a likely significant effect from operations and maintenance activities could not be ruled out for the proposed development, both alone and in combination, Natural England was satisfied that no adverse effect would arise on the features or on site integrity of the Inner Dowsing, Race Bank and North Ridge Site of Community Importance.

Harbour Porpoise Special Protected Area

- 1.62 Natural England identified that in their view, whilst there could be effects arising from the development of the array on harbour porpoise, no such risk is considered relevant from the development of the cable route. The Applicant agreed that there are no activities associated with the proposed development that generate significant noise, there is not likely to be an impact pathway from the proposed development that could lead to disturbance of this species within any Special Area of Conservation (SAC) which may be brought forward. A brief statement on this will be submitted for Deadline 3 by both the Applicant and Natural England.

Agenda Item 10 – Land Drainage and Flood Risk

- 1.63 The ExA invited the internal drainage boards (IDBs) to make oral representations in relation to the ability to carry out maintenance activities; discharge planned strategies and need to future proof from the effects of climate change. The ExA also sought an update on progress to address these and other concerns.
- 1.64 In response to oral representations made by the IDBs on these issues the Applicant noted on-going engagement over a considerable period of time and the agreements reached for IDB maintained watercourses. Issues with respect to ordinary watercourses have been raised relatively recently, and perhaps there was some misunderstanding during the evidence plan process regarding precisely which drains were under discussion. The Applicant is now trying to understand more about how the IDBs operate and what operations they need to undertake in the future for both IDB maintained and ordinary watercourses.

-
- 1.65 The Applicant responded to a question from the ExA on approaching agreement with the IDBs. The Applicant and IDBs are in further discussions on identified issues and the Applicant needs to understand in detail the IDB's position on non-IDB maintained ordinary ("riparian") watercourses, and restrictive covenants. The Applicant is confident that agreement can be reached on these outstanding matters and the parties are meeting on 3rd December to work toward progressing on these. The Applicant will work toward submitting a joint update on issues for Deadline 4.
- 1.66 The Applicant noted that it is unlikely to have a SoCG with the IDBs update by Deadline 3 but could provide an updated position (this was amended at the ISH on socio economic issues during which the Applicant and the IDBs noted that the date of their next meeting had been moved to after Deadline 3).

Agenda Item 11 – Noise

North Kesteven District Council

- 1.67 The Applicant confirms that following the submission of a response to the Local Impact Report and Written Representation the Applicant has contacted North Kesteven District Council (NKDC) in relation to preparing a SoCG. NKDC confirmed that they were focussing on their LIR. The Applicant has responded to the NKDC's LIR and has had no further response from them.

Methodology

- 1.68 In response to oral representations from ELDC stating that they were pleased to see that the updated standard BS 4142: 20014 was used the Applicant confirmed that BS 4142 was updated after the EIA Evidence Plan Noise Review Panel meetings (see document reference 8.16 *EIA Evidence Plan*), at which appropriate criteria for use in the assessment were discussed. Whilst it was known at this time that the standard was being updated, the content of the revised standard was not available and therefore it was agreed that BS 4142: 1997 would be used for the assessment. It was noted that the revision to the standard is recognised in the ES (Volume 3 Chapter 11, paras 11.26 to 11.28 and paras 11.44 and 11.45), along with the fact that the changes are not substantive in relation to the TKES.
- 1.69 In response to oral representations by BBC suggesting there was some confusion regarding the operational noise limits agreed the Applicant also clarified that the limit proposed in Requirement 17 of the DCO is a rating level of 35 dB(A), which includes any appropriate penalties. During the EIA Evidence Plan Noise Review Panel meeting, it was agreed that, due to the nature of the equipment that would be installed at the Substation and Intermediate Electrical Compound, a 5 dB penalty for tonal noise would be assumed. The limit in Requirement 17 of the DCO therefore relates to a noise level of 30 dB, with a 5 dB penalty for tonal noise.

-
- 1.70 In response to the ExA question on the robustness of the noise assessment undertaken, the Applicant confirmed that the low frequency noise criteria that have been adopted for the assessment (as set out in Volume 3, Chapter 11 Noise and Vibration (document reference 6.2.3.11) of the ES) are internal noise criteria, and therefore an allowance has to be made to account for the reduction in noise levels as noise is transmitted from outside to inside the property. The allowance that has been made in the assessment is 5 dB. In comparison, the sound insulation at a frequency of 100 Hz, which is the frequency at which the assessment identifies low frequency noise impacts are likely to be at a maximum, for a variety of common construction materials are set out in Table 1 on page 10 of the Applicant's response to Deadline 2.
- 1.71 This shows that a single glazed window is likely to have the lowest sound insulation, but still results in a noise level reduction of 10 to 15 dB. The assessment presented within the Application is thus clearly conservative in assuming a reduction of only 5 dB.
- 1.72 Even where a window is open, the same 10 to 15 dB noise reduction would follow unless the window aperture is larger than the wavelength of the emitted sound. In this case, the low frequency noise generated has a wavelength of approximately 3.3 to 3.5 m, which is substantially larger than an average window opening. There is, however, a possibility that some (albeit small) reduction in sound insulation would be experienced at 100 Hz with windows open, therefore the assumption of only a 5 dB reduction in transmitted noise level is expected to remain conservative.

Assessment of worst case scenario

- 1.73 The assessment criteria used was agreed in the EIA Evidence Plan process as set out in document reference 8.16 *EIA Evidence Plan*. The assessment concluded that the noise impacts would be minor with the mitigation measures set out in Volume 3, Chapter 11 of the ES, so on that basis there has not been any consideration for further mitigation.
- 1.74 The nearest property, Drove Farm is 800 m away and was not included as a Category 3 interest as the Applicant did not consider that there was a risk of the works giving rise to a claim.
- 1.75 The locations of properties likely to be affected by trenchless operations have not been identified as a complete list of trenchless operation sites is not yet confirmed.
- 1.76 In response to the ExA question on how the worst case scenario was assessed the Applicant confirmed that the Crossing Schedule (document reference 8.3), which is secured in the DCO (document reference 31.), sets out a number of locations where the Applicant has confirmed that trenchless techniques will be used such as all roads, railway lines and major drains. At these locations each of the three techniques has been considered throughout the EIA for all topics and the technique which has the greatest impact has been taken forward as the worst case.

1.77 The assessment was carried out using a range of separation distances as set out in Table 119 of Volume 3, Chapter 11 of the ES. These are:

- 50 m which reflects the minimum distance from cable route;
- 70 m which is representative where works are undertaken away from the edge of the corridor; and
- 100 m which is representative of properties slightly further back from the Order Limits or where trenchless works can be located to maximise set-back distances

1.78 In relation to the construction pits which would need to be sheet piled, these locations have been identified and assessed as set out in Table 11-10 of Volume 3, Chapter 11 of the ES and the potential location of further set back distances are discussed further in the text of that Chapter.

1.79 The trenchless techniques used at any particular location will be determined by a number of factors, in particular ground conditions, discussions with particular bodies where we need to seek consent, and environmental considerations such as noise. Any mitigations that can be applied to reduce impacts such as noise will also be considered.

Noise monitoring

1.80 In response to the ExA question on the procedures to be implemented to monitor noise the Applicant confirmed that noise mitigation measures will be monitored as set out in the Outline Noise and Vibration Management plan (document reference 8.7.3). The Applicant noted that in order to understand if the mitigation implemented is working, it is implicit that we need to understand source noise levels.

1.81 The Applicant advised that typically site supervisors would be issued with noise monitoring equipment and will make records of specific equipment being used. In addition the Applicant will ensure that all equipment meets statutory requirements.

1.82 The Applicant committed to providing a note that explains how the monitoring of noise will be secured through the draft DCO for Deadline 3. Please refer to Appendix 20 of the Applicant's Response to Deadline 3.

Response to complaints

1.83 In response to the ExA question on to the results of noise complaints the Applicant highlighted that as there is a flat noise limit of 35 dB, in the event that there is a complaint the Applicant will have to take steps to address the issue, if not it will be for the Local Authority to take enforcement action to ensure compliance.

Working Hours

- 1.84 In response to the ExA question on whether an effort would be made to restrict noisy works within the set working hours the Applicant confirmed that noisy works will be restricted to after 7.30 am on weekdays and 8 am to 1 pm on Saturday as set out in the Outline Code of Construction Practice (document reference 8.7) which is secured in Requirement 14 of the draft DCO (document reference 3.1). Requirement 14 also secures a Scheme for Noise and Vibration Management during Construction which must accord with the outline version (document reference 8.7.3). There is also a mechanism to allow the Local Authority to agree specific working hours for any stage of the works.