



Triton Knoll Offshore Wind Farm Limited Triton Knoll Electrical System



**Bicker Fen Extension and
Reconfiguration Note**

Date: November 2015

Triton Knoll Offshore Wind Farm Limited

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Bicker Fen Extension and Reconfiguration Note

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1. INTRODUCTION

- 1.1 This clarification note has been prepared in respect of Triton Knoll Offshore Wind Farm Ltd's (TKOWFL or the Applicant) application for a development consent order (DCO) under the Planning Act 2008 (the Application). It has specifically been prepared following notification by National Grid Electricity Transmission (NGET) of their intention to reconfigure its existing Bicker Fen substation and the consequential implications for the design of the Triton Knoll connection works at Bicker Fen.
- 1.2 NGET has identified a need for additional infrastructure at the Bicker Fen substation in order to accommodate further potential third party connections. As a result, the Triton Knoll Electrical System (TKES) infrastructure has to be relocated.
- 1.3 Full details of the reasons for, and the changes to the TKES connection works are set out in the appendices to this note:
- (a) Appendix A – ES Addendum relating to works at Bicker Fen;
 - (b) Appendix B – Updated Bicker Fen figures;
 - (i) Annex 1 – Updated Onshore Project Description figures;
 - (ii) Annex 2 – Updated visualisations of the Bicker Fen substation;
 - (iii) Annex 3 – Updated cumulative development traffic figure;
 - (iv) Annex 4 – Updated Hydrology and Flood Risk and Flood Risk Assessment figures;
 - (v) Annex 5 – Updated Works Plans – Sheet 48
 - (c) Appendix C -- Joint Position Paper between the Applicant and NGET including;
 - (vi) Appendix A – Revised Plan – Bicker Fen Substation; and
 - (vii) Appendix B – Bicker Fen Substation Summary of Design Changes.
- 1.4 In light of these changes, the Applicant has consulted with the Environment Agency, Boston Borough Council and Lincolnshire County Council and has undertaken a review of the environmental impact assessment in the Environmental Statement in respect of the works at Bicker Fen.

- 1.5 The changes proposed are not considered to constitute a material change to the TKES DCO application.

2. REASON FOR CHANGE

- 2.1 In order to connect the Triton Knoll Offshore Wind Farm (TKOWF) to the national grid, a grid connection solution was determined in consultation with National Grid Electricity Transmission (NGET) as part of the work to inform the interface selection for the TKES. In 2011, it was agreed by both Triton Knoll Offshore Wind Farm Limited (TKOWFL) and NGET, that a connection at Bicker Fen was the best solution for the project. A grid connection agreement was signed in 2012 securing TKOWFL's connection at Bicker Fen. NGET's Bicker Fen substation was consented and built with additional capacity based on NGET's understanding of the future operational requirements of its substation at that point in time.
- 2.2 The scope and location of the TKOWF connection works at Bicker Fen (referred to as the Unlicensed Works in the TKES application) were agreed with NGET prior to submission of the TKES application.
- 2.3 Since the TKES application was accepted by the Secretary of State for examination in May 2015, additional transmission system reinforcements have been identified as necessary by NGET, and the design of the Bicker Fen substation has been reviewed to accommodate these additional works. Consequently, NGET has concluded there is a need to extend and further reinforce the existing substation in order to accommodate all the potential connections.
- 2.4 In August 2015, TKOWFL were notified by NGET that changes may need to be made to the location of the TKOWF connection. Since that time the Applicant has been in discussions with NGET and has sought a revised design from NGET. The final design changes were notified to TKOWFL following Deadline I on 5 October 2015.
- 2.5 The design changes have been triggered by the changing operational requirements at the substation location brought about by a number of third party connections/interactions that were neither triggered by, nor are within the control of TKOWFL. The extent of the changes is not considered to constitute a material change to the TKES DCO application. They are simply a relocation of works already included within the application on NGET owned land.

3. DESIGN CHANGES

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- 3.1 In order to connect the TKOWF to the national grid, NGET will need to undertake work to its existing Bicker Fen substation. These works are referred to in the TKES application as the 'Enabling Works'. As described in paragraph 1.220 of Volume 3, Chapter 1 Onshore Project Description (Document 6.2.3.1), these works are essentially the creation of two new skeleton bays at Bicker Fen including the installation of new switchgear and busbars and associated earthworks.
 - 3.2 On completion of the Enabling Works, TKOWFL will be able to populate the TKOWF connection bays and connect its cables. These works are referred to in the TKES application as the 'Unlicensed Works' (Work No 54 in the draft DCO (document reference 3.1)). The Unlicensed Works will consist of the erection and installation of relevant equipment to facilitate connection of the 400 kV cables to the NGET infrastructure. These works include equipment such as cable sealing ends, circuit breakers, surge arrestors, dis-connectors, current and voltage transformers, busbars and busbar clamps, power quality measurement equipment, a relay/marshalling room and an electrical earthing system. Erection of this equipment will require scaffolding and a crane.
 - 3.3 As originally proposed, the Enabling Works and the Unlicensed Works could be accommodated within the existing Bicker Fen substation footprint.
 - 3.4 However, NGET have identified the need for additional transmission system reinforcements. Consequently, NGET has concluded there is a need to extend and further reinforce the existing network in order to accommodate other connections.
 - 3.5 To accommodate this additional infrastructure NGET needs to increase the overall substation footprint. The proposed substation extension as provided in Appendix B (Annex A) will be to the north eastern boundary of the existing substation location, and is expected to extend the substation operational boundary. Full details of the design changes are provided at Appendix C (Appendix B) -- Summary of Design Changes at Bicker Fen Substation.
 - 3.6 As such, NGET has advised that the location of the Triton Knoll connection bay on the eastern section of the substation needs to be moved to a location outside of the existing fence line.
 - 3.7 This design change is a locational change only. The scope of work associated with the connection of the wind farm to the transmission system remains unchanged. The works as revised can still be accommodated within the Order limits as submitted. No change to the Order Limits is required.

4. REVIEW OF ENVIRONMENTAL STATEMENT ASSESSMENT

- 4.1 In light of the changes to the Enabling Works as described in Appendix C (Appendix B), a detailed review of the onshore chapters of the Environmental Statement (ES) has been undertaken to update the assessment and determine whether the changes to the location of the Enabling Works and the Unlicensed Works change the conclusions of the assessment. This task has comprised an initial scoping review followed by a more detailed review of assessments where required. The ES Addendum is included at Appendix A.
- 4.2 The review of the design changes and the original assessment has determined that the changes to the Enabling Works and Unlicensed Works require further detailed consideration of the following chapters:
- (a) Volume 3, Chapter 2: Landscape and Visual (see Appendix A, Section 5) - Following a review of the new images and the original assessment, it has been identified that the changes to the National Grid works at Bicker Fen Substation (comprising the Enabling Works and Substation Extension Works) do not alter any of the findings of the original landscape and visual assessment, and no additional mitigation is deemed to be required. In addition to the main assessment, the cumulative assessment has been reviewed and no change to the original cumulative assessment is required.
 - (b) Volume 3, Chapter 7: Hydrology and Flood Risk and Flood Risk Assessment (see Appendix A, Section 7) - The changes highlighted are not expected to significantly alter the hydrology or flood risk impacts, compared to the original assessment undertaken for the ES. Therefore, no alterations to the impact assessment overall results are required. Consideration of the amended works required to connect to the National Grid is not expected to materially alter the hydrology or flood risk cumulative impacts, compared to the original cumulative assessment undertaken for the ES, as the specification of the works required has not materially altered with respect to the first three cumulative impacts. The Flood Risk Assessment has indicated that there are no significant adverse effects arising from the proposed development assuming that the implementation of the proposed embedded mitigation measures are undertaken in full. It should be noted that the drainage strategy for the Unlicensed Works will be designed to complement that adopted for the Substation Extension Works and Enabling Works at the NGET substation site, which is currently unknown.
 - (c) Volume 3, Chapter 9: Traffic and Access (see Appendix A, Section 6) - There is no material change to the traffic volumes associated with the Unlicensed Works

and therefore the original traffic assessment therefore remains valid. Following assessment of the revised LGV and HGV volumes associated with the Enabling Works and Substation Extension Works, it has been identified that the changes to the Enabling Works do not alter any of the findings of the original traffic and transport cumulative assessment.

5. REVIEW OF DEVELOPMENT CONSENT ORDER AND APPLICATION DOCUMENTS

- 5.1 There are no consequential changes required to the draft DCO as a result of the design changes at Bicker Fen. Minor amendments to the location of Work Nos 53 and 54 as shown on sheet 48 of the Works Plans (document reference 2.2) are required to reflect the extension of Bicker Fen and the potential revised location of the TKES Unlicensed Works. As the final detailed design cannot be determined at this stage, revised Works Plans include sufficient flexibility to ensure the final design solution can be delivered.

6. POLICY

- 6.1 The Applicant has had regard to PINS Advice Note 16: How to request a change which may be material (July 2015) (“Advice Note 16”) and paragraphs 109 to 115 of Guidance for the examination of applications for development consent (March 2015) (“the Guidance”).
- 6.2 Whilst para 1.2 of Advice Note 16 and 109 of the Guidance relate specifically to material changes, it is relevant to the design changes proposed at Bicker Fen in that it confirms that there are occasions when applicants may need to make a change to an application after it has been accepted for examination as a result of on-going negotiations between the applicant and other interested parties.
- 6.3 Section 2 deals with “What constitutes a material change?” Although not an exhaustive list, paragraph 2.1 explains that an extension to Order land or changes which generate new likely significant environmental effects will usually be considered a material change. As set out in paragraphs 3 and 4 of this clarification note, the design change at Bicker Fen substation is locational only and no change to the Order land is required; and the review of the environmental statement has concluded that there is no change to conclusions of the environmental impact assessment as a result of the locational change of the connection works.

- 6.4 It is also relevant to consider the approach to material and non-material changes taken in the Infrastructure Planning (Changes to, and Revocation of, Development Consent Orders) Regulations 2011 (the "2011 Regulations").
- 6.5 There is no statutory definition of 'materiality' for the purposes of the Planning Act 2008 and Part 1 of the 2011 Regulations. However three characteristics are described in DCLG's "Government response to the consultation on making changes to Development Consent Orders" (November 2014) (the "DCLG Response") as an indicator of the materiality of a proposed change to a DCO. At paragraph 8 of the DCLG Response, the Government confirmed that guidance will be issued to include those three characteristics, and in particular that an amendment is more likely to be considered 'material' if:
- (d) An update would be required to the Environmental Statement (from that at the time the original Development Consent Order was made) to take account of likely significant effects on the environment;
 - (e) There would be a need for a Habitats Regulations Assessment, or the need for a new or additional licence in respect of European Protected Species; or
 - (f) It would involve compulsory acquisition of any land that was not authorised through the existing Development Consent Order.
- 6.6 None of these criteria apply to the changes to the TKES application at Bicker Fen which provides further support from them to be considered as non-material.
- 6.7 The design changes have been prompted by NGET's changing operational requirements at Bicker Fen substation that were neither triggered by, nor are within the control of TKOWFL. For the reasons given above they are not considered to constitute a material change to the TKES DCO application.

7. CONSULTATION

- 7.1 This Bicker Fen Extension and Reconfiguration Clarification Note was issued to Boston Borough Council, the Environment Agency and Lincolnshire County Council on the 6th November 2015 as the relevant authorities for those elements which were considered in detail following the scoping review (see Appendix B). Discussion with these bodies is ongoing.

8. ARTICLE 4 DIRECTION

- 8.1 It is the Applicant's understanding that the NGET changes at Bicker Fen can be accommodated within the existing substation consent and/or made using permitted development rights. The Applicant is aware that Boston Borough Council has raised the question within the TKES examination of whether an Article 4 direction could be made to remove permitted development rights. The Applicant considers this to be a matter for NGET and BBC and has no comment to make on such a direction.
- 8.2 NGET is responsible for delivering the Enabling Works under the terms of its transmission licence and the grid connection agreement with TKOWFL.

9. SUMMARY

- 9.1 NGET has identified the need for additional infrastructure at Bicker Fen substation to accommodate potential third party connections in the future. To accommodate these works the existing footprint of the Bicker Fen substation will increase and consequently, the TKES infrastructure is to be relocated to a location external to the existing fence line but still within the Order limits. This is a locational change only, and does not change of the scope of works at the Bicker Fen substation. A detailed review of the onshore chapters of the Environmental Statement (ES) has been undertaken and there is no change to the conclusions of the environmental impact assessment contained with the ES. The Environment Agency, Boston Borough Council and Lincolnshire County Council were issued the package on 6th November and consultation is ongoing.
- 9.2 The Applicant has sought to notify the ExA and the interested parties of the changes to the works at Bicker Fen as soon as possible. Whilst the changes are not considered to be material, this will ensure that there is time for them to be considered in advance of the hearings in November.