

**SCOTTISHPOWER
RENEWABLES**

East Anglia ONE North and East Anglia TWO Offshore Windfarms

Applicants' Comments on National Grid Venture's Deadline 9 Submissions

Applicant: East Anglia TWO and East Anglia ONE North Limited

Document Reference: ExA.AS-19.D10.V1

SPR Reference: EA1N_EA2-DWF-ENV-REP-IBR-001069

Date: 6th May 2021

Revision: Version 01

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Applicable to East Anglia ONE North and East Anglia TWO



Revision Summary

Rev	Date	Prepared by	Checked by	Approved by
01	06/05/2021	Brian McGrellis	Ian Mackay	Richard Morris

Description of Revisions

Rev	Page	Section	Description
01	n/a	n/a	Final for Submission



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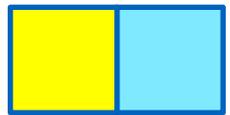
Glossary of Acronyms

CIA	Cumulative Impact Assessment
EIA	Environmental Impact Assessment
HVAC	High Voltage Alternating Current
HVDC	High Voltage Directional Current
MPI	Multi Purpose Interconnectors
NGV	National Grid Ventures
OTNR	Offshore Transmission Network Review



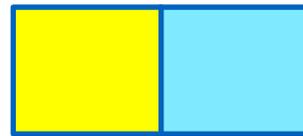
Glossary of Terminology

Applicants	East Anglia TWO Limited / East Anglia ONE North Limited
East Anglia ONE North project	The proposed project consisting of up to 67 wind turbines, up to four offshore electrical platforms, up to one construction, operation and maintenance platform, inter-array cables, platform link cables, up to one operational meteorological mast, up to two offshore export cables, fibre optic cables, landfall infrastructure, onshore cables and ducts, onshore substation, and National Grid infrastructure.
East Anglia TWO project	The proposed project consisting of up to 75 wind turbines, up to four offshore electrical platforms, up to one construction, operation and maintenance platform, inter-array cables, platform link cables, up to one operational meteorological mast, up to two offshore export cables, fibre optic cables, landfall infrastructure, onshore cables and ducts, onshore substation, and National Grid infrastructure.
Landfall	The area (from Mean Low Water Springs) where the offshore export cables would make contact with land, and connect to the onshore cables.



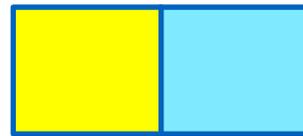
1 Introduction

1. This document presents the Applicants' comments on National Grid Ventures' (NGV) Deadline 9 submission.
2. This document is applicable to both the East Anglia TWO and East Anglia ONE North DCO applications, and therefore is endorsed with the yellow and blue icon used to identify materially identical documentation in accordance with the Examining Authority's procedural decisions on document management of 23rd December 2019 (PD-004). Whilst this document has been submitted to both Examinations, if it is read for one project submission there is no need to read it for the other project submission.



2 Comments on National Grid Venture's Deadline 9 Submissions

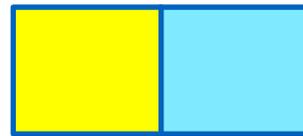
ID	NVG Comment	Applicants' Comments
Introduction		
1	<p>The 'Extension of National Grid Substation Appraisal' Document (referred to hereafter as the 'Appraisal Document') submitted by the Applicant at Deadline 8, gives consideration to the cumulative effects assessment of the potential future extensions to the proposed NGET substation at Friston. Extension/s to the proposed NGET substation which forms part of the applications for EA1N and EA2 would be required to accommodate the Nautilus and/or EuroLink projects should the proposed substation at Friston be identified as a feasible connection location by NGV.</p> <p>As per the Examining Authorities Question 2.0.14 and NGV's Deadline 6 response, NGV are willing to work in consultation with the Applicant to help inform their cumulative effects assessment.</p>	<p>The Applicants note that the NGV projects are not yet defined in terms of grid connection location.</p> <p>As confirmed by NGV on a number of occasions, and including ID 6 below, the landfall, cable corridor, convertor station and grid connection point are not yet selected. Until such a point as they are selected, it is not possible to undertake a Cumulative Impact Assessment (CIA). Should this information be made available from NGV the Applicants could consider that information in a cumulative context.</p> <p>The Applicants cannot undertake NGV's site selection process on their behalf from the options currently in the public domain, and cannot prejudge the selection of their landfall, cable corridor, convertor station and grid connection point.</p>
Progress since options presented in Nautilus Briefing Pack (July 2019)		
2	<p>Paragraph 10 of the SPR Appraisal Document refers to NGV's 'initial site appraisal work' and footnote 1 provides a link to the Nautilus Briefing Pack (July 2019). Since publishing the Nautilus Briefing Pack (July 2019) NGV have undertaken significant further feasibility work identifying and assessing siting and routing options and have sought feedback on proposed methodologies from a range of technical stakeholders to inform yet further feasibility work, which is ongoing. It is NGV's intention to present site and route options identified to date as part of a non-statutory public consultation in late Summer 2021. Following the non-</p>	<p>The Applicants note that the NGV projects are not yet defined in terms of siting or routing options and that Environmental Impact Assessment (EIA) scoping is not expected until early 2022.</p> <p>The Applicants maintain its position that the NGV projects are not adequately defined to facilitate a CIA, in line with The Planning Inspectorate Advice Note 17: Cumulative effects assessment relevant to nationally significant infrastructure projects.</p>



ID	NVG Comment	Applicants' Comments
	statutory consultation, NGV will be working towards an early 2022 submission date for an EIA Scoping Report.	
3	A Project Update document (April 2021) has been added to the Nautilus project website which makes reference to the planned non-statutory consultation and provides an updated project timeframe. A copy of the Nautilus Project Update document (April 2021) is appended to this written representation (Appendix 1).	It is noted that the Nautilus Project Update document (April 2021) provides no further detail on the project that would assist the Applicants in undertaking a CIA.
Parameters for NGV's Proposed Infrastructure		
4	The Nautilus Briefing Pack (July 2019) sets out the infrastructure required (project elements) to enable connection of the proposed interconnector to the National Transmission System (NTS). In addition to the NGET substation extension bays which would be required to accommodate Nautilus and/or EuroLink, both Interconnector projects would need a converter station (per interconnector) in proximity to any substation. For each project, underground HVDC cabling would be required from the landfall point to the converter station and HVAC cable from the converter station to the NGET substation.	The Applicants are aware of this information.
5	As explained in the Nautilus Frequently Asked Questions document (May 2020) ¹ Interconnectors use HVDC lines. The link between the UK and Belgium will exceed 100 miles end to end. The use of HVDC cables to transport 1400 megawatts (MW) over this distance is proven to be more efficient for losses and will require a smaller number of cables than HVAC. Other technologies also use HVDC technology; including offshore wind projects such as EA1N/EA2. It is the common use of HVDC for interconnectors and offshore wind that allows for consideration of	The Applicants wish to correct the statement "Other technologies also use HVDC technology; including offshore wind projects such as EA1N/EA2". The East Anglia ONE North and East Anglia TWO projects will utilise High Voltage Alternating Current (HVAC) technology and note the viability of High Voltage Directional Current (HVDC) for offshore windfarm s is dependent on the export capacity of the offshore wind farm and the length of the grid connection required.



ID	NVG Comment	Applicants' Comments
	<p>increased co-ordination and the potential for integration, potentially via Multi Purpose Interconnectors (MPIs) (please see Appendix 2), as is being considered for the BEIS Offshore Transmission Network Review (OTNR).</p>	<p>The Applicants have previously made representations to the Examinations relating to the Offshore Transmission Network Review (section 2.2 of PDC-001 and section 2.5 of REP3-085).</p>
6	<p>While NGV cannot provide further detail on the location of the landfall, converter station/s and routeing of underground cables for Nautilus or EuroLink at this stage, the project components and parameters (e.g. site size, potential infrastructure dimensions etc) have previously been set out in both the Nautilus Briefing Pack (July 2019)² and the Nautilus Frequently Asked Questions document (May 2020). The nature of this type of linear infrastructure and associated technology means that there is early clarity on fixed project elements, these are unlikely to change except for refinement of parameters; project variability is related to siting and routeing, and associated mitigations. Therefore, the key project elements and assumptions set out for the Nautilus project (in the documents referred to above) are also applicable to the EuroLink project. NGV continue to work to these project components and parameters while progressing feasibility work.</p>	<p>The Applicants note that the location of the landfall, converter station/s and routeing of underground cables is not yet known, please see ID 1.</p> <p>Irrespective of parameters being known, until such a time as the locations and routings are known, the NGV projects are not adequately defined to facilitate a Cumulative Impact Assessment, in line with The Planning Inspectorate Advice Note 17: Cumulative effects assessment relevant to nationally significant infrastructure projects. It is noted that that the Nautilus Project Update document (April 2021) provides no further detail on the project that would assist the Applicants in undertaking a CIA, and EIA scoping of the Nautilus Project is not scheduled until early 2022.</p>
7	<p>The converter station/s would need to be located within a 5km radius of the NGET substation. The search radius for the converter station site is limited to 5 km as beyond this distance NGV would need to increase the size of the converter station building. Locating the converter station further away from the substation has an impact on the voltage level needed to transmit the power, thereby requiring additional equipment to be installed at the converter station to maintain the required voltage level.</p>	<p>See ID6.</p>



ID	NVG Comment	Applicants' Comments
8	Four different landfall options (A to D) are set out in the initial site appraisal work on page 5 of the Nautilus Briefing Pack (July 2019). Landfall option D is in the same location as the landfall proposed for both the EA1N and EA2 applications.	See ID6.
9	NGV have been engaging with SPR to inform ongoing feasibility work and to understand SPR's proposals for EA1N and EA2. NGV will continue to engage with SPR as proposals for Nautilus and EuroLink develop in order to work collaboratively and to minimise disruption and effects where possible.	<p>Noted. As per the Statement of Common Ground with NGV (REP8-113), subject to NGV committing to connection(s) for the Nautilus and/or EuroLink interconnector projects at the National Grid substation, the Applicants and NGV will engage regularly with each other during the design and construction of their respective projects so that any interface between the projects can be considered at an early stage, recognising it is in the interests of the Applicants and NGV as well as the wider community that all projects be coordinated as far as reasonably practicable.</p> <p>The Applicants await the outcome of NGVs feasibility studies and EIA Scoping in early 2022, which will confirm the location of the landfall, onshore cable route, convertor station and grid connection location.</p>