Norfolk Vanguard Offshore Wind Farm

Statement of Common Ground

Royal Society for the Protection of Birds

Applicant: Norfolk Vanguard Limited
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Photo: Kentish Flats Offshore Wind Farm

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Glossary

DCO	Development Consent Order
ES	Environmental Statement
ETG	Expert Topic Group
HRA	Habitats Regulations Assessment
HDD	Horizontal Directional Drilling
LiDAR	Light Detection and Ranging
MMO	Marine Management Organisation
OWF	Offshore Wind Farm
PEIR	Preliminary Environmental Information Report
pSPA	Proposed Special Protection Area
RSPB	Royal Society for the Protection of Birds
SPA	Special Protection Area
SoCG	Statement of Common Ground

Terminology

Array cables	Cables which link the wind turbines and the offshore electrical platform.
Landfall	Where the offshore cables come ashore at Happisburgh South.
Mobilisation area	Areas approx. 100 x 100 m used as access points to the running track for duct installation. Required to store equipment and provide welfare facilities. Located adjacent to the onshore cable route, accessible from local highways network suitable for the delivery of heavy and oversized materials and equipment.
National Grid overhead line modifications	The works to be undertaken to complete the necessary modification to the existing 400kV overhead lines.
Necton National Grid substation	The existing 400 kV substation at Necton, which will be the grid connection location for Norfolk Vanguard.
Offshore accommodation platform	A fixed structure (if required) providing accommodation for offshore personnel. An accommodation vessel may be used instead.
Offshore cable corridor	The area where the offshore export cables would be located.
Offshore electrical platform	A fixed structure located within the wind farm area, containing electrical equipment to aggregate the power from the wind turbines and convert it into a more suitable form for export to shore.
Offshore export cables	The cables which bring electricity from the offshore electrical platform to the landfall.
Onshore cable route	The 45 m easement which will contain the buried export cables as well as the temporary running track, topsoil storage and excavated material during construction.
Onshore project substation	A compound containing electrical equipment to enable connection to the National Grid. The substation will convert the exported power from HVDC to HVAC, to 400kV (grid voltage). This also contains equipment to help maintain stable grid voltage.

The OWF sites	The two distinct offshore wind farm areas, Norfolk Vanguard East and Norfolk Vanguard West.
Trenchless crossing zone (e.g. HDD)	Temporary areas required for trenchless crossing works.

1 INTRODUCTION

1. This Statement of Common Ground (SoCG) has been prepared with the Royal Society for the Protection of Birds (RSPB) and Norfolk Vanguard Limited (hereafter 'the Applicant') to set out the areas of agreement and disagreement in relation to the Development Consent Order (DCO) application for the Norfolk Vanguard Offshore Wind Farm (hereafter 'the project'). This SoCG comprises an agreement log which has been structured to reflect topics of interest to the RSPB on the Norfolk Vanguard DCO application (hereafter 'the Application'). Topic specific matters agreed, not agreed and actions to resolve between the RSPB and the Applicant are included.

2. Points that are not agreed will be the subject of ongoing discussion wherever possible to resolve, or refine, the extent of disagreement between the parties.

1.1 The Development

3. The Application is for the development of the Norfolk Vanguard Offshore Wind Farm (OWF) and associated infrastructure. The OWF comprises two distinct areas, Norfolk Vanguard (NV) East and NV West ('the OWF sites'), which are located in the southern North Sea, approximately 70 km and 47 km from the nearest point of the Norfolk coast respectively. The location of the OWF sites is shown in Chapter 5 Project Description Figure 5.1 of the Application. The OWF would be connected to the shore by offshore export cables installed within the offshore cable corridor from the OWF sites to a landfall point at Happisburgh South, Norfolk. From there, onshore cables would transport power over approximately 60 km to the onshore project substation and grid connection point near Necton, Norfolk.

4. Once built, Norfolk Vanguard would have an export capacity of up to 1800 MW, with the offshore components comprising:

    - Wind turbines;
    - Offshore electrical platforms;
    - Accommodation platforms;
    - Met masts;
    - Measuring equipment (LiDAR and wave buoys);
    - Array cables;
    - Interconnector cables; and
    - Export cables.

5. The key onshore components of the project are as follows:

    - Landfall;
    - Onshore cable route, accesses, trenchless crossing technique (e.g. Horizontal Directional Drilling (HDD)) zones and mobilisation areas;

- Onshore project substation; and
- Extension to the existing Necton National Grid substation and overhead line modifications.

1.2 Consultation with the RSPB

6. This section briefly summarises the consultation that the Applicant has had with the RSPB. For further information on the consultation process please see the Consultation Report (document reference 5.1 of the Application).

1.2.1 Pre-Application

7. The Applicant has engaged with the RSPB on the project during the pre-Application process, both in terms of informal non-statutory engagement and formal consultation carried out pursuant to Section 42 of the Planning Act 2008.

8. During formal (Section 42) consultation, the RSPB provided comments on the Preliminary Environmental Information Report (PEIR) by way of a letter dated 11th December 2017.

9. Further to the statutory Section 42 consultation, several meetings were held with the RSPB through the Evidence Plan Process.

10. Table 1 provides an overview of meetings and correspondence undertaken with the RSPB. Minutes of the meetings are provided in Appendices 9.15 – 9.26 (pre-Section 42) and Appendices 25.1 – 25.9 (post-Section 42) of the Consultation Report (document reference 5.1 of the Application).

1.2.2 Post-Application

11. As part of the pre-examination process, the RSPB submitted a Relevant Representation to the Planning Inspectorate on the 14th September 2018.

12. This SoCG represents the position of the parties as they currently stand. It is intended for it to be a live document throughout the examination process as the Applicant and the RSPB work to resolve outstanding issues. However, this process is not of unlimited duration and will conclude with final positions of agreement and disagreement as appropriate.

2 STATEMENT OF COMMON GROUND

13. Within the sections and tables below, the different topics and areas of agreement and disagreement between the RSPB and the Applicant are set out.

2.1 Offshore Ornithology

14. The project has the potential to impact upon Offshore Ornithology. Chapter 13 of the Norfolk Vanguard Environmental Statement (ES) (document reference 6.1 of the Application) provides an assessment of the significance of these impacts.

15. Table 1 provides an overview of meetings and correspondence undertaken with the RSPB regarding Offshore Ornithology.

16. Table 2 provides areas of agreement (common ground) and disagreement regarding Offshore Ornithology.

17. Minutes of Evidence Plan meetings can be found in Appendix 9.17 and Appendix 25.8 of the Consultation Report (document reference 5.1 of the Application).

Table 1 Summary of Consultation with the RSPB in relation to Offshore Ornithology

Date	Contact Type	Topic
Pre-Application		
11th March 2016	Letter from the Applicant	Formal launch of Norfolk Vanguard.
16th March 2016	Project Introduction meeting	Introduction to strategy for northern half of zone; data sources; approach to assessment; potential mitigation.
3rd February 2017	Email from the Applicant	Provision of the Offshore Ornithology Method Statement (Appendix 9.14 of the Consultation Report).
15th February 2017	ETG meeting	Discussion on the approach to EIA
21st March 2017	Email from the RSPB	RSPB feedback on Offshore Ornithology Method Statement and provision of information.
26th June 2017	Email from the Applicant	Offshore HRA Screening (Appendix 5.1 of the HRA (document 5.3)) provided for information.
7th September 2017	Email from the Applicant	Provision of draft offshore ornithology PEIR Chapter 13.
6th October 2017	ETG meeting	Discussion of comments on the draft PEIR chapter
11th December 2017	PEIR response from the RSPB	Comments on the PEIR chapter

Date	Contact Type	Topic
22nd February 2018	Email from the Applicant	Provision of draft Norfolk Vanguard Information to Support Habitats Regulations Assessment (HRA) (document 5.3).
23rd March 2018	Email from the RSPB	RSPB's comments on the HRA.
26th March 2018	Offshore Ornithology HRA Conference Call	Project update and comments on HRA for Offshore Ornithology
Post-Application		
14th September 2018	Relevant Representation	RSPB's initial feedback on the DCO application.

Table 2 Offshore ornithology

Topic	Norfolk Vanguard Limited position	RSPB position	Final position
Consultation			
Consultation	The RSPB has been adequately consulted regarding Offshore ornithology to date.	Agreed	Agreed
Environmental Impact Assessment			
Existing Environment	Survey data collected for Norfolk Vanguard (and East Anglia FOUR, now NV East) for the characterisation of offshore ornithology are suitable for the assessment.	Agreed	Agreed
	The methods and techniques used to analyse offshore ornithological data are appropriate for characterising bird distributions and estimating populations.	Agreed	Agreed
	The method used to determine flight heights is appropriate. Generic flight height data (Johnston et al. 2014, with corrigendum) will be used due to data reliability concerns raised by aerial surveyor.	Agreed	Agreed.
	The method used to assign unidentified birds to species is appropriate.	Agreed	Agreed
	The use of migration-free breeding months to define seabird seasons is appropriate.	Agreed for all species (apart from gannet, kittiwake and lesser black-backed gull noted below).	Agreed for all species (apart from gannet, kittiwake and lesser black-backed gull).
		Not agreed: full breeding season as defined by Furness (2015) supported by colony-specific data should be used for gannet and kittiwake from Flamborough and Filey Coast Special Protection Area (SPA) and lesser black-backed gull from Alde Ore Estuary SPA.	Not agreed
Assessment methodology			
General	Appropriate legislation, planning policy and guidance relevant to offshore ornithology has been used.	Agreed	Agreed

Topic	Norfolk Vanguard Limited position	RSPB position	Final position
	The list of potential impacts on offshore ornithology assessed is appropriate	Agreed	Agreed
	The methods for determining impact significance on offshore ornithological receptors is appropriate.	Agreed	Agreed
	The worst case scenarios used in the assessment for offshore ornithology are appropriate.	Agreed	Agreed
	Differences between single and two phased approaches to construction are trivial in terms of ornithology impacts.	Agreed	Agreed
	The characterisation of receptor sensitivity is appropriate.	Agreed	Agreed
Construction impact methods	The lists of potential construction impacts and ornithology receptors assessed are appropriate.	Agreed	Agreed
	The methods used to estimate impacts during construction, including cable laying operations, based on mean density estimates and using evidence based percentages of displacement and mortality are appropriate.	Not agreed. The RSPB recommends use of a range of rates used for assessing displacement impacts, in line with Natural England's advice.	Not agreed
Operation impact methods	The sources of operational impact assessed are appropriate.	Agreed	Agreed
	The lists of ornithology receptors assessed for each impact are appropriate.	Agreed	Agreed
	Methods for assessing operational displacement are appropriate, based on use of mean densities and evidence based percentages of displacement and mortality.	Not agreed. The RSPB recommends use of a range of rates used for assessing displacement impacts, in line with Natural England's advice.	Not agreed
	Methods for assessing population scale collision impacts are appropriate: use of Band collision risk model (CRM) options 1 and 2, implemented as stochastic simulations using the R programming language in order to permit incorporation of uncertainty in all the parameters for which NE requested	Agreed with respect to use of Band model options 1 and 2	Agreed.
		Not agreed with respect to methods used – see below.	

Topic	Norfolk Vanguard Limited position	RSPB position	Final position
	upper and lower predictions. These included nocturnal activity rates, proportions at collision height, avoidance rates and seabird densities.	Not agreed. The RSPB recommends that the Marine Scotland implementation of the stochastic CRM is used in place of the Applicant's.	Not agreed
		Not agreed. The RSPB recommends that mean seabird densities should be used instead of medians.	Not agreed
		Not agreed. The RSPB recommends that nocturnal activity rates should be those previously recommended (in the absence of evidence regarding survey timings).	Not agreed
		Not agreed. The RSPB recommends that the gannet avoidance rate should be 98% in the breeding season.	Not agreed
		Not agreed. The RSPB does not agree with the use of PBR and density dependent PVA outputs in assessing collision risk. Density independent PVA outputs in the form of counterfactuals of population size should be used.	Not agreed

Topic	Norfolk Vanguard Limited position	RSPB position	Final position
	Methods for assessing barrier effects are appropriate.	Agreed	Agreed
	Methods for assessing indirect effects are appropriate.	Agreed	Agreed
Impact assessment findings – project alone			
Construction impacts	The magnitude of effects and conclusions on significance resulting from impacts during construction are correctly identified and predicted. No impacts of greater than minor significance are predicted.	Agreed (subject to the caveat below), subject to revisions to methods as detailed in the RSPB Relevant Representation (and summarised here, e.g. months assigned to biological seasons).	Agreed (subject to noted caveat)
	The ES considers construction, operation and decommissioning effects in accordance with the requirements of the EIA Regulations and the approach to assessment was agreed as part of the Evidence Plan Process. Construction and decommissioning effects are distinct from operational effects so it is not appropriate to combine effects in the way suggested by the RSPB. In any event, construction and decommissioning impacts are generally minor and short term, so the combined effect would not increase the significance of the impact assessed for operation alone. Note, this position also applies in subsequent rows where the RSPB have repeated this position.	Note that the RSPB considers that conclusions on significance for each receptor should consider the full range of impacts from the project as a whole during all stages of the project (i.e. construction, operation and decommissioning).	

Topic	Norfolk Vanguard Limited position	RSPB position	Final position
Operation impacts	The magnitude of effects and conclusions on significance resulting from displacement impacts during operation are correctly identified and predicted. No impacts of greater than minor significance are predicted.	Agree impact significance (subject to the caveat below) but displacement and mortality rates used for assessment not agreed. The RSPB recommend use of a range of rates, in line with Natural England's advice. Conclusions on the significance for each receptor should consider the full range of impacts from the project as a whole during all stages of the project (i.e. construction, operation and decommissioning).	Agreed (subject to noted caveat)
	The magnitude of effects and conclusions on significance resulting from collision impacts during operation are correctly identified and predicted. No impacts of greater than minor significance are predicted.	Not agreed due to the stochastic CRM version used, and methodological concerns including assignment of months to breeding season, nocturnal activity rates and use of median seabird densities. Note that the conclusions on significance for each receptor should consider the full range of impacts from the project as a whole during all stages of the project (i.e. construction, operation and decommissioning).	Not agreed.

Topic	Norfolk Vanguard Limited position	RSPB position	Final position
	The magnitude of effects and conclusions on significance resulting from barrier effects during operation are correctly identified and predicted. No impacts of greater than minor significance are predicted.	Agreed (subject to the caveat below) Conclusions on the significance for each receptor should consider the full range of impacts from the project as a whole during all stages of the project (i.e. construction, operation and decommissioning).	Agreed (subject to noted caveat)
	The magnitude of effects and conclusions on significance resulting from indirect effects during operation are correctly identified and predicted. No impacts of greater than minor significance are predicted.	Agreed (subject to the caveat below) Conclusions on the significance for each receptor should consider the full range of impacts from the project as a whole during all stages of the project (i.e. construction, operation and decommissioning).	Agreed
Decommissioning impacts	The magnitude of effects and conclusions on significance resulting from impacts during decommissioning are correctly identified and predicted. No impacts of greater than minor significance are predicted.	Agreed. (subject to the caveat below) Conclusions on the significance for each receptor should consider the full range of impacts from the project as a whole during all stages of the project (i.e. construction, operation and decommissioning).	Agreed
Cumulative impact assessment			
Cumulative construction assessment	The plans and projects considered within the CIA are appropriate	Agreed	Agreed

Topic	Norfolk Vanguard Limited position	RSPB position	Final position
	The magnitude of effects and conclusions on significance resulting from cumulative impacts during construction are correctly identified and predicted. No impacts of greater than minor significance are predicted.	Agreed.	Agreed.
Cumulative operation assessment	The plans and projects considered within the CIA are appropriate.	Agreed, with relevance to sites and species of concern to RSPB.	Agreed
	The magnitude of effects and conclusions on significance resulting from cumulative displacement impacts during operation for all species assessed (guillemot, razorbill, puffin and red-throated diver) are correctly identified and predicted. No impacts of greater than minor significance are predicted.	Not agreed due to insufficient evidence (and lack of population modelling) to rule out significant effects for red-throated diver, razorbill and guillemot.	Not agreed
	The magnitude of effects and conclusions on significance resulting from cumulative collision impacts during operation are correctly identified and predicted. No impacts of greater than minor significance are predicted.	Not agreed due to concerns about the input parameters and methods used to estimate collision risks (as noted above). Insufficient evidence to rule out cumulative effects for kittiwake and great black-backed gull.	Not agreed
Habitats Regulations Assessment (HRA)			
Screening of LSE	The Approach to HRA Screening is appropriate.	Agreed	Agreed
	The following sites and species should be screened in for further assessment: • Alde-Ore Estuary SPA (lesser black-backed gull); • Flamborough and Filey Coast SPA (gannet and kittiwake); • Flamborough Head and Bempton Cliffs SPA (kittiwake); and • Greater Wash SPA (red-throated diver and little gull).	Agreed. Considered that the screening out of guillemot and razorbill from the Bruine Bank pSPA required justification, but we acknowledge that this has now been provided within the HRA Screening Matrices.	Agreed.
Assessment	The approach to the determination of Adverse Effect on Integrity (AEoI) is appropriate.	Not agreed. PBR should not be used to support these conclusions.	Not agreed

Topic	Norfolk Vanguard Limited position	RSPB position	Final position
	Conclusion of no AEoI for Alde-Ore Estuary is appropriate, on the basis of in-combination collisions in the context of the large non-SPA populations of lesser black-backed gull in Norfolk and Suffolk with potential for connectivity to NV, the outputs from PVA models and an understanding that predation at colony is a key driver of the population health.	Not agreed. The RSPB questions the estimation of the regional population size and likelihood of connectivity with the Norfolk Vanguard site and the collision modelling methods and the Galloper PVA 'medium scenario' used. Insufficient evidence on which to base assumptions about key colony drivers or to rule out in-combination effects.	Not agreed
	Conclusion of no AEoI for gannet population at Flamborough and Filey Coast SPA is appropriate on the basis of in-combination collisions and the predicted consequences from PBR and PVA.	Not agreed. The RSPB does not agree with the collision modelling methods used, the use of PBR and the assignment of breeding season months. Insufficient evidence to rule out in-combination effects.	Not agreed
	Conclusion of no AEoI for kittiwake population at Flamborough and Filey Coast SPA is appropriate on the basis of in-combination collisions and the predicted consequences estimated from PVA.	Not agreed. The RSPB does not agree with the collision modelling methods used, the method used to apportion collisions to the SPA, the use of PBR and the assignment of breeding season months. Insufficient evidence to rule out in-combination effects.	Not agreed
	Conclusion of no AEoI for kittiwake population at Flamborough Head and Bempton Cliffs SPA is appropriate on the basis of in-combination collision total and the predicted consequences estimated from PVA. Note that this feature is the same as that for the Flamborough and Filey Coast SPA and therefore covered by that assessment.	Not agreed. Position as per that for the Flamborough and Filey Coast SPA assessment of this feature (see above).	Not agreed

Topic	Norfolk Vanguard Limited position	RSPB position	Final position
	Conclusion of no AEoI for the red-throated diver population at the Greater Wash SPA is appropriate on the basis of in-combination construction displacement.	Agreed, but note that there is increasing evidence of the sensitivity of red-throated diver to wind farm related activity.	Agreed
	Conclusion of no AEoI for the little gull population at the Greater Wash SPA is appropriate on basis of in-combination collisions.	Agreed, subject to revision to collision methods.	Agreed
Mitigation and Management			
Mitigation and Management	Given the impacts of the project, the proposed mitigation and monitoring (to be developed through the Ornithological Monitoring Plan, in accordance with the In Principle Monitoring Plan (Application document 8.12)) is adequate.	Agreed (with exception of lesser black-backed gull, see below).	Agreed
		Not agreed for lesser black-backed gull at Alde-Ore Estuary SPA. The RSPB does not consider that the proposed management measures should be considered as mitigation. Site-specific monitoring should be included in the In Principle Monitoring Plan due to the need validate the conclusions regarding impacts that have been made in the EIA and HRA.	Not agreed

The undersigned agree to the provisions within this SOCG

Signed	R Sutherland
Printed Name	Rosie Sutherland
Position	In-house Solicitor
On behalf of	The Royal Society for the Protection of Birds
Date	10 January 2019

Signed	R Sherwood
Printed Name	Rebecca Sherwood
Position	Norfolk Vanguard Consents Manager
On behalf of	Norfolk Vanguard Ltd (the Applicant)
Date	10 January 2019