DOGGER BANK D WIND FARM

Preliminary Environmental Information Report Volume 2

Volume 2
Appendix 4.1 Consultation Responses for Project Description

Document Reference No: 2.4.1
Date: June 2025
Revision: V1

sse Renewables equinor

www.doggerbankd.com

Document Title:	**Volume 2, Appendix 3.1 Consultation Responses for Project Description**
Document BIM No.	**PC6250-RHD-XX-PW-RP-EV-0144**
Prepared By:	**Royal HaskoningDHV**
Prepared For:	**Dogger Bank D Offshore Wind Farm**

Revision No.	Date	Status / Reason for Issue	Author	Checked By	Approved By
V1	22/05/2025	Final	HB / TP / PT	RH	RH

Table of Contents

Glossary

Term	Definition
DBD	Dogger Bank D (DBD) Offshore Wind Farm, also referred to as the Project in this PEIR.
Development Consent Order (DCO)	A consent required under Section 37 of the Planning Act 2008 to authorise the development of a Nationally Significant Infrastructure Project, which is granted by the relevant Secretary of State following an application to the Planning Inspectorate.
Environmental Impact Assessment (EIA)	A process by which certain planned projects must be assessed before a formal decision to proceed can be made. It involves the collection and consideration of environmental information and includes the publication of an Environmental Statement.
Offshore	Area seaward of nearshore in which the transport of sediment is not caused by wave activity.
Offshore Platform(s)	Fixed structures located within the DBD Array Area that contain electrical equipment to aggregate and, where required, convert the power from the wind turbines, into a more suitable voltage for transmission through the export cables to the Onshore Converter Station. Such structures could include (but are not limited to): Offshore Converter Station(s) and an Offshore Switching Station.
Project Design Envelope	A range of design parameters defined where appropriate to enable the identification and assessment of likely significant effects arising from a project's worst-case scenario. The Project Design Envelope incorporates flexibility and addresses uncertainty in the DCO application and will be further refined during the EIA process.
Scoping Opinion	A written opinion issued by the Planning Inspectorate on behalf of the Secretary of State regarding the scope and level of detail of the information to be provided in the Applicant's Environmental Statement. The Scoping Opinion for the Project was adopted by the Secretary of State on 02 August 2024.
Scoping Report	A request by the Applicant made to the Planning Inspectorate for a Scoping Opinion on behalf of the Secretary of State. The Scoping Report for the Project was submitted to the Secretary of State on 24 June 2024.
The Applicant	SSE Renewables and Equinor acting through 'Doggerbank Offshore Wind Farm Project 4 Projco Limited'.
The Project	Dogger Bank D Offshore Wind Farm Project, also referred to as DBD in this PEIR.

4.1 Consultation Responses for Project Description

1. **Volume 1, Chapter 4 Project Description** for the Dogger Bank D Offshore Wind Farm (herein referred to as 'the Project' or 'DBD') has been informed by consultation with the Planning Inspectorate and stakeholders following the publication of the Scoping Report (DBD, 2024) and the comments contained within the Scoping Opinion (Planning Inspectorate, 2024). This appendix contains details of the relevant comments for Chapter 4 Project Description and the Applicant's responses in **Table 4.1-1**.

2. The Applicant previously submitted a Scoping Report in 2023 based on project parameters at that time. The 2024 Scoping Report (Royal HaskoningDHV, 2024) and adopted Scoping Opinion (Planning Inspectorate, 2024) have superseded the 2023 Scoping Report and as such consultation responses on the 2023 Scoping Report are not considered further in this document except where they are included in the 2024 consultee responses and remain relevant to the Project.

Table 4.1-1 Consultation Responses for Project Description

Stakeholder	Document / Meeting, Date	Comment	How and Where Addressed in the PEIR
The Planning Inspectorate	Scoping Opinion (02/08/24)	(ID 2.1.1) **Description of Development:** The description of the Proposed Development within the Scoping Report is indicative and relatively high level, which does affect the level of detail possible in the Inspectorate's comments. In particular, the Inspectorate notes that there is limited information to explain how the design characteristics of the Offshore Hybrid Asset (OHA) option would differ from the radial connection and that the locations of principal development components within the application site (for example the landfall and the Onshore Converter Station(s) (OCS)) have not been confirmed. It is also noted that Table 3-1 of the Scoping Report describes key indicative	A description of the Project Design Envelope approach and how it relates to the parameters set out in **Volume 1, Chapter 4 Project Description** is provided in **Section 4.2**. The Project Design Envelope provides an element of flexibility for the Project to be connected with an interconnector cable. To enable this potential for coordination, flexibility for up to two offshore platforms, which will form the basis of relevant environmental assessments, is included within the Project Design Envelope. One platform will be a converter station, and the second will be for a switching station. The switching station would allow for potential future coordination with an interconnector cable. No other additional

Stakeholder	Document / Meeting, Date	Comment	How and Where Addressed in the PEIR
		parameters using terminology such as “up to an estimated…” and “up to approximately…”, but it is explained that these parameters would continue to be refined throughout the EIA process. The Inspectorate understands that at this point in the evolution of the Proposed Development, a final description of the development is not yet confirmed, and the red line boundary is likely to be refined. However, the Applicant should be aware that the description of the Proposed Development provided in the ES must be sufficiently certain to meet the requirements of the EIA Regulations. The description of the Proposed Development in the ES should make reference to the design, size and locations of each element, including maximum heights, design parameters and limits of deviation. The description should be supported (as necessary) by figures, cross sections and drawings which should be clearly and appropriately referenced. If both the radial connection and OHA options are to form part of the application for Development Consent, the description of the Proposed Development in the ES should include all design characteristics and parameters applicable to both options. The Inspectorate considers this is necessary in order to meet the requirements of the EIA Regulations and to provide confidence that the worst-case scenario has been assessed in the ES. For example, it is not clear from Table 3-1 of the Scoping Report whether the inter-connector cables required for an OHA have been considered within the worst-case scenario parameters.	infrastructure relating to an interconnector is included in the Project Design Envelope for PEIR to support coordination with an interconnector cable. The development of the project design is an iterative and ongoing process. Therefore, the description of the key infrastructure components and their parameters are indicative based on available design information at this stage. Following PEIR publication, the Project Design Envelope will be further refined and confirmed in the Environmental Statement (ES) accompanying the DCO application. The detailed design of the Project will be developed within the consented envelope and boundaries prior to construction.

Stakeholder	Document / Meeting, Date	Comment	How and Where Addressed in the PEIR
The Planning Inspectorate	Scoping Opinion (02/08/24)	(ID 2.1.2) **Design Envelope Approach** Table 3-1 of the Scoping Report sets out the "Key Indicative Parameters for the Realistic Worst-Case Scenario Assessed in the Scoping Report". It is not clear how the parameters in Table 3-1 would relate to the parameters which would be set out in the draft Development Consent Order (DCO). The ES should assess the worst case that could potentially be built out in accordance with the Authorised Development of the DCO being applied for; this includes (but is not limited to) parameters relating to the number of turbines, turbine height, foundation types, scour protection, cable protection and the layout of offshore structures.	A description of the Project Design Envelope approach and how it relates to the parameters set out in **Volume 1, Chapter 4 Project Description** is provided in **Section 4.2**. The development of the project design is an iterative and ongoing process. The Project Design Envelope described in the chapter is based on available design information at this stage and will be further refined leading up to the DCO application submission. The final Project Design Envelope for which consent is sought will be confirmed in the ES. Relevant realistic worst-case scenarios derived from the Project Design Envelope are outlined within each technical chapter of the PEIR (**Volume 1, Chapter 8 Marine Physical Processes** to **Chapter 31 Climate Change**) on a receptor-by-receptor or impact-by-impact basis.

Stakeholder	Document / Meeting, Date	Comment	How and Where Addressed in the PEIR
The Planning Inspectorate	Scoping Opinion (02/08/24)	(ID 2.1.3) **Drill Arisings:** The ES should identify the likely site/s for the disposal of drill arisings and include an assessment of any likely significant effects (LSE) resulting from these activities.	The number of offshore foundations that may require drilling during construction and the quantity of drill arisings that are anticipated during construction are set out in **Section 4.8.1.2** of **Volume 1, Chapter 4 Project Description.** The disposal method for drill arisings is adjacent to the origin location as set out in **Section 4.8.1.2.1** of **Volume 1, Chapter 4 Project Description**. The potential of any LSE resulting from drilling activities during construction of offshore foundations is assessed through sediment dispersion modelling in **Volume 1, Chapter 8 Marine Physical Processes** and cross-referenced in other relevant chapters such as **Volume 1, Chapter 9 Marine Water and Sediment Quality** and **Volume 1, Chapter 10 Benthic and Intertidal Ecology**.

Stakeholder	Document / Meeting, Date	Comment	How and Where Addressed in the PEIR
The Planning Inspectorate	Scoping Opinion (02/08/24)	(ID 2.1.4) **Seabed Preparation:** The ES should provide further detail on the proposed seabed preparation activities required and identify the worst-case footprint of seabed disturbance that would arise. Should seabed preparation involve dredging, the ES should identify the quantities of dredged material and likely location for disposal. Any LSE from dredging or dredge disposal should be assessed.	A description of seabed preparation activities, including dredging activities, that may be required for offshore foundation installation is provided in **Section 4.8.3** of **Volume 1, Chapter 4 Project Description**, and **Section 4.8.7** for the offshore cable installation. The disposal method for seabed preparation is adjacent to the origin location (side cast) as set out in **Section 4.8.3.2** of **Volume 1, Chapter 4 Project Description**. The potential of any LSE resulting from dredging activities during construction is assessed through sediment dispersion modelling in **Volume 1, Chapter 8 Marine Physical Processes** and cross-referenced in other relevant chapters such as **Volume 1, Chapter 9 Marine Water and Sediment Quality**, **Volume 1, Chapter 10 Benthic and Intertidal Ecology**, and **Volume 1, Chapter 11 Fish and Shellfish Ecology**.
The Planning Inspectorate	Scoping Opinion (02/08/24)	(ID 2.1.5) **Scour Protection:** The ES should confirm the amount of scour protection required for each foundation type under consideration, what the maximum seabed footprints would be and the timeframes for installation.	A description of scour protection required for offshore foundations is provided in **Section 4.8.3.3** of **Volume 1, Chapter 4 Project Description**. The potential of any LSE resulting from scour protection installation is assessed in **Volume 1, Chapter 10 Benthic and Intertidal Ecology** and **Volume 1, Chapter 11 Fish and Shellfish Ecology.**

Stakeholder	Document / Meeting, Date	Comment	How and Where Addressed in the PEIR
The Planning Inspectorate	Scoping Opinion (02/08/24)	(ID 2.1.6) **Cable Burial:** If flexibility is sought regarding cable burial depth, the assessments should be based on the relevant worst case, with a clear justification as to why this is considered to be the relevant worst case.	A description of cable burial depth of offshore cables is provided in **Section 4.8.7.6** of **Volume 1, Chapter 4 Project Description**. Where relevant, the assessments in the PEIR assume the worst-case burial depth such as impacts of suspended sediment concentrations.
The Planning Inspectorate	Scoping Opinion (02/08/24)	(ID 2.1.7) **Cable Protection:** The ES should detail the maximum volume of material required for cable protection and explain how this has been quantified.	A description of cable protection required is provided in **Section 4.8.7.7** of **Volume 1, Chapter 4 Project Description**.

Stakeholder	Document / Meeting, Date	Comment	How and Where Addressed in the PEIR
The Planning Inspectorate	Scoping Opinion (02/08/24)	(ID 2.1.8) **Landfall:** Paragraph 129 of the Scoping Report explains that dependent on the engineering constraints of the proposed landfall, different cable installation methodologies will be considered and it is assumed that suitable technologies will include trenchless solutions. The ES should describe and assess the option/s in this regard, including effects during construction, operation and decommissioning. Impacts associated with the anticipated changes at the coastal landfall site throughout the lifetime of the Proposed Development (including both vertical change in beach profile and the effects from coastal retreat) should be assessed where significant effects are likely. The ES should describe how cable burial and siting of associated infrastructure will be managed throughout the lifespan of the Proposed Development. The Alternatives chapter of the ES should describe the main reasons for the option/s chosen, including a comparison of the environmental effects.	The design of the landfall infrastructure and associated construction, operation and maintenance and decommissioning activities are described in **Section 4.9.1** to **4.9.4** of **Volume 1, Chapter 4 Project Description.** Future baseline conditions at the landfall with respect to coastal erosion is provided in **Volume 1, Chapter 8 Marine Physical Processes**, and considerations of the climate change resilience of landfall infrastructure over the Project's operational lifetime are discussed in **Volume 1, Chapter 31 Climate Change**. Selection of the landfall location and consideration of alternatives are detailed in **Chapter 5 Site Selection and Assessment of Alternatives**.

Stakeholder	Document / Meeting, Date	Comment	How and Where Addressed in the PEIR
The Planning Inspectorate	Scoping Opinion (02/08/24)	(ID 2.1.9) **Crossings within the Onshore Export Cable Corridor:** As the locations of the landfall and onshore components have yet to be confirmed, it is not yet clear whether any temporary or permanent crossings of watercourses, major roads and / or railways would be required. The Scoping Report explains that onshore export cables would be installed via open cut trenching methods, and where required, using trenchless crossings, e.g. Horizontal Directional Drilling (HDD). The ES should identify the locations and types of all such crossings within the onshore ECC, as well as the nature of any associated construction works (e.g. dewatering, trenching and HDD). Where reliance is placed on the use of a specific method to mitigate significant effects, the Applicant should ensure that such commitments are appropriately defined and secured.	A draft Onshore Crossing Schedule is provided in **Appendix 4.3 Crossing Schedule – Onshore**. This appendix identifies the locations of obstacle crossings to facilitate the installation of cable ducts and haul roads along the onshore ECC and the proposed crossing methodology at each location based on available design information at this stage. The Onshore Crossing Schedule will be further updated and confirmed at the ES stage. Details of trenched and trenchless methodologies for the onshore export cable works are provided in **Section 4.9.5** of **Volume 1, Chapter 4 Project Description**. Where technical chapters within the PEIR (**Volume 1, Chapter 8 Marine Physical Processes** to **Chapter 31 Climate Change**) rely on a specific crossing methodology to mitigate likely significant effects, such commitments along with details on how they are secured are identified in **Appendix 6.3 Commitments Register**.
The Planning Inspectorate	Scoping Opinion (02/08/24)	(ID 2.1.10) **Energy Storage and Balancing Infrastructure:** Paragraph 134 of the Scoping Report explains that the infrastructure within the OCS Zone may incorporate ESBI, such as battery banks. If this option is pursued, the description of the physical characteristics and technical capacity of the ESBI should be developed in the ES to include details such as technology type / specification.	A description of the Energy Storage and Balancing Infrastructure is provided in **Section 4.9.6.2** of **Volume 1, Chapter 4 Project Description**.

Stakeholder	Document / Meeting, Date	Comment	How and Where Addressed in the PEIR
The Planning Inspectorate	Scoping Opinion (02/08/24)	(ID 2.1.11) **Construction Activities:** The ES should provide a full description of the nature, location and duration of construction activities. The construction programme should be described including any phasing in delivery.	An indicative construction programme for the Project is provided in **Section 4.7** of **Volume 1, Chapter 4 Project Description**. Description of the nature, location and duration of construction activities are provided separately within the chapter for each infrastructure component: • **Section 4.8** for offshore infrastructure, including wind turbines, offshore platform(s), inter-array and offshore export cables and scour and cable protection; • **Section 4.9.1** for landfall infrastructure, including the transition joint bay (TJB) and associated link box and trenchless duct installation to connect the offshore and onshore export cables; • **Section 4.9.5** for onshore export cable infrastructure, including onshore export cables, jointing bays and associated link boxes; and • **Section 4.9.6** for the OCS and ESBI.

Stakeholder	Document / Meeting, Date	Comment	How and Where Addressed in the PEIR
The Planning Inspectorate	Scoping Opinion (02/08/24)	(ID 2.1.12) **Construction Compounds:** The ES should confirm the locations and sizes of the temporary construction compounds and where possible, show detailed layouts. Any mitigation measures proposed to avoid or minimise impacts relating to the use of compounds should be described in the ES.	Indicative locations of temporary construction compounds required for onshore construction activities are shown on **Figure 4-2** in **Volume 1, Chapter 4 Project Description**. These locations are subject to change and will be confirmed at the ES stage. A description of the landfall construction compound is provided in **Section 4.9.1** to, main and intermediate construction compounds and trenchless installation compounds for the onshore export cable works in **Section 4.9.5** and OCS and ESBI construction compounds in **Section 4.9.6**
The Planning Inspectorate	Scoping Opinion (02/08/24)	(ID 2.1.13) **Operation and Maintenance Activities** The Applicant should make effort to identify the location of the port and operation and maintenance base, where possible, and assess any LSE associated. In the event that the location/s cannot be confirmed, the ES should explain the assumptions and worst-case scenario which have informed the assessment. The ES should provide a full description of the nature and scope of operation and maintenance activities, including types of activity, frequency, and how works will be carried out for both offshore and onshore components. This should include consideration of potential overlapping of activities with those required for the continuing operation of existing wind farms in the area and construction of those proposed.	A description of the nature and scope of operation and maintenance activities are provided separately within **Volume 1, Chapter 4 Project Description** for each infrastructure component: • **Section 4.8.12** for offshore infrastructure, including wind turbines, offshore platform(s), inter-array and offshore export cables and scour and cable protection; • **Section 4.9.1** for landfall infrastructure, including the TJB and associated link box; • **Section 4.9.5** for onshore export cable infrastructure, including onshore export cables, jointing bays and associated link boxes; and • **Section 4.9.6** for the OCS and ESBI. A description of the O&M base port required to support offshore O&M activities is provided in **Section 4.8.12.1**.

Stakeholder	Document / Meeting, Date	Comment	How and Where Addressed in the PEIR
			Potential cumulative effects between the Project's O&M activities and ongoing operation of existing offshore wind developments and construction of proposed offshore wind developments are considered in the relevant technical chapters (**Volume 1, Chapter 8 Marine Physical Processes** to **Chapter 31 Climate Change**) within the PEIR.
The Planning Inspectorate	Scoping Opinion (02/08/24)	(ID 2.1.14) **Decommissioning:** The Scoping Report contains limited information with regards to likely decommissioning activities and does not specify the likely duration of the decommissioning phase. The Inspectorate expects the ES to describe the likely decommissioning activities and timescales and include an assessment of impacts arising from decommissioning, where LSE could occur.	The final decommissioning strategy of the Project's infrastructure has not yet been decided. The scope and methodology of decommissioning activities will adhere to regulatory requirements and industry best practice at the time of decommissioning and be confirmed in the Offshore Decommissioning Programme and Onshore Decommissioning Plan (see Commitment IDs CO29 and CO80 in **Appendix 6.3 Commitments Register**). A description of likely decommissioning activities are provided separately within **Volume 1, Chapter 4 Project Description** for each infrastructure component: • **Section 4.8.13** for offshore infrastructure, including wind turbines, offshore platform(s), inter-array and offshore export cables and scour and cable protection; • **Section 4.9.1**for landfall infrastructure, including the TJB and associated link box; • **Section 4.9.5** for onshore export cable infrastructure, including onshore export cables, jointing bays and associated link boxes; and • **Section 4.9.6** for the OCS and ESBI.

Stakeholder	Document / Meeting, Date	Comment	How and Where Addressed in the PEIR
The Planning Inspectorate	Scoping Opinion (02/08/24)	(ID 2.1.15) **Unexploded Ordnance:** The Inspectorate notes that separate Marine Licence application(s) will be made prior to construction for UXO investigation and clearance works, with an accompanying assessment of UXO clearance impacts on relevant receptors. The Scoping Report states that any assessments for UXO clearance in the EIA will be for information only and are not part of the DCO application. The Inspectorate understands that the number, type and size of UXO devices is not known at this stage and that a detailed UXO survey will be conducted prior to construction. The Inspectorate advises that the ES should still include a high-level assessment in relevant aspect chapters based on a likely worst-case scenario (any assumptions used in the definition of the worst-case scenario should be explained in the ES). The ES should address any cumulative effects from the construction of the Proposed Development with the likely effects from the UXO clearance.	**Section 4.8.3.1** and **Section 4.8.7.1** of **Volume 1, Chapter 4 Project Description** outlines a high-level approach on how UXO will be surveyed, identified and managed during installation of offshore foundations and cables respectively. More details will be provided on UXO clearance at the DCO application submission stage where a high-level assessment will be provided that will include potential impacts to receptors such as marine mammals through underwater noise modelling of a range of UXO sizes.
The Planning Inspectorate	Scoping Opinion (02/08/24)	(ID 2.1.16) **Cofferdams:** Section 7.2.3.1.2 of the Scoping Report states that construction of the landfall could involve one or more cofferdams. Relevant parameters for any cofferdams, including maximum number, should be described in the ES.	Following design refinements, including a landfall trenchless installation exit in the subtidal zone, cofferdams or similar temporary structures where water is pumped out of an enclosed area will not be used for landfall construction works and therefore do not form part of the Project Design Envelope, as described in **Section 4.9.1** to **4.9.4** of the **Volume 1, Chapter 4 Project Description**.

Stakeholder	Document / Meeting, Date	Comment	How and Where Addressed in the PEIR
The Planning Inspectorate	Scoping Opinion (02/08/24)	(ID 2.1.17) **Lighting:** The ES should describe any temporary or permanent lighting requirements.	Offshore operational lighting requirements for surface-piercing structures are described in **Section 4.8.4** of the **Volume 1, Chapter 4 Project Description**, with further details provided in **Volume 1, Chapter 15 Shipping and Navigation** and **Volume 1, Chapter 16 Aviation, Radar and Military**. Temporary lighting during onshore construction activities is described in **Section 4.9.6** of **Volume 1, Chapter 4 Project Description**, and **Section 3.4** of the **Outline Code of Construction Practice** (CoCP) (document reference 8.9)**.** Operational lighting requirements for the onshore export cables, OCS and ESBI are anticipated to be limited, as described in **Section 4.9.8.**
The Planning Inspectorate	Scoping Opinion (02/08/24)	(ID 2.1.18) **Vehicle and Vessel Movements:** The ES should detail the type and number of anticipated vehicle and vessel movements during all phases of the Proposed Development and explain the assumptions upon which these have been established.	Details on the type and anticipated number of vessel movements associated with the Project's offshore construction and O&M activities are provided in **Section 4.8.9** and **Section 4.8.12.2** of **Volume 1, Chapter 4 Project Description** respectively. Details on the type and anticipated number of vessel movements associated with the Project's onshore construction and O&M activities are provided in **Volume 1, Chapter 26 Traffic and Transport**.

Stakeholder	Document / Meeting, Date	Comment	How and Where Addressed in the PEIR
The Planning Inspectorate	Scoping Opinion (02/08/24)	(ID 2.1.19) **Access Routes:** The ES should describe the proposed site entrance/s and the routes to be used for all vehicular access during construction and operation of the Proposed Development and this information should be clearly presented on supporting plans within the ES. The ES should describe and assess the potential impacts (both positive and negative) associated with any improvements / changes to the access routes which are either required to facilitate construction / operation of the Proposed Development or are required for restoration purposes on completion of the works. The ES should explain how the proposed access route(s) relate to sensitive receptors.	Indicative locations of construction and O&M accesses to the landfall, onshore ECC and OCS zones are shown on **Figure 4-2** in **Volume 1, Chapter 4 Project Description**. These locations are subject to change and will be confirmed at the ES stage. Further details of the access strategy are provided in **Volume 1, Chapter 26 Traffic and Transport**. As the access strategy is still being developed, the locations and nature of traffic modification works required to enable access will be confirmed in the ES and the associated impacts will be assessed in the relevant technical chapters.
The Planning Inspectorate	Scoping Opinion (02/08/24)	(ID 2.1.20) **Existing Infrastructure:** The Scoping Report identifies a number of existing infrastructure assets within or in proximity to the application site, including wind farms, transport infrastructure and the Leven Canal. The assessment in the ES should take into account the location of existing infrastructure and identify any interactions between it and the Proposed Development. Any significant effects that are likely to occur should be assessed. The Applicant's attention is drawn to the scoping consultation responses including from National Gas, Network Rail, Northern Gas Networks and UK Power Distribution (Appendix 2 of this Opinion) which highlight infrastructure likely to be affected.	Potential impacts associated with interactions with existing infrastructure are considered in **Volume 1, Chapter 18 Other Marine Users** for offshore infrastructure and **Volume 1, Chapter 22 Soils and Land Use** for onshore infrastructure.

Stakeholder	Document / Meeting, Date	Comment	How and Where Addressed in the PEIR
Natural England	Scoping Opinion (02/08/24)	(ID 4) **Offshore Hybrid Asset:** It is unclear to Natural England at this stage how the Offshore Hybrid Asset (OHA) may be integrated within the Project. Our understanding is that an OHA may tie into the offshore infrastructure indicated within the WCS parameters, and we would expect to see clarity on this in the ES. An indication of the scale / quantity of infrastructure specific to the OHA option is also required within the ES. Additionally, it is not clear whether the inter-connector cables required for an OHA have been considered within the WCS parameters. Finally, further information on how and when a decision will be made regarding the OHA option would be beneficial.	A description of the Project Design Envelope approach and how it relates to the parameters set out in **Volume 1, Chapter 4 Project Description** is provided in **Section 4.2**. The Project Design Envelope covers the flexibility for the Project to be connected with an interconnector cable. To enable this potential for coordination, flexibility for up to two offshore platforms, which will form the basis of relevant environmental assessments, is included within the Project Design Envelope. One platform will be a converter station, and the second will be for a switching station. The switching station would allow for potential future coordination with an interconnector cable. No other additional infrastructure relating to an interconnector is included in the Project Design Envelope for PEIR to support coordination with an interconnector cable. The development of the project design is an iterative and ongoing process. Therefore, the description of the key infrastructure components and their parameters are indicative based on available design information at this stage. Following PEIR publication, the Project Design Envelope will be further refined and confirmed in the ES accompanying the DCO application. The detailed design of the Project will be developed within the consented envelope and boundaries prior to construction.

Stakeholder	Document / Meeting, Date	Comment	How and Where Addressed in the PEIR
Natural England	Scoping Opinion (02/08/24)	(ID 5) **Minimum Blade Clearance:** Natural England advises that draught height should be raised as much as possible above 22m to reduce seabird collision risk.	The minimum blade clearance height (air gap) for the wind turbines included in the Project Design Envelope is 28m above Lowest Astronomical Tide (LAT) as described in **Section 4.8.1** of **Volume 1, Chapter 4 Project Description**.
Natural England	Scoping Opinion (02/08/24)	(ID 6) **Wind Turbine Foundation Options:** Natural England welcomes that gravity bases have not been included in the project design for wind turbines.	Noted. The types of offshore foundations considered for the wind turbines are described in **Section 4.8.1.2** of **Volume 1, Chapter 4 Project Description**, which do not include gravity base foundations.
Natural England	Scoping Opinion (02/08/24)	(ID 7) **Platform Foundation Options:** We note that gravity bases have been included as a foundation option for offshore platforms. We would welcome discussion during the EPP on the need for this option to remain scoped in.	Noted. The types of offshore foundations considered for the offshore platform(s) are described in **Section 4.8.2.1** of **Volume 1, Chapter 4 Project Description**. Gravity base foundations are currently retained in the Project Design Envelope. Further engagement on this matter will be undertaken with Natural England through the EPP.
Natural England	Scoping Opinion (02/08/24)	(ID 8) **Cofferdams:** Section 7.2.3.1.2 states that "a variety of methods could be adopted that are likely to involve one or more coffer dams". The maximum number of cofferdams should therefore be included in Table 3-1 (indictive parameters for the Realistic Worst-Case Scenario), as they are currently omitted.	Following design refinements, including a landfall trenchless installation exit in the subtidal zone, cofferdams or similar temporary structures where water is pumped out of an enclosed area will not be used for landfall construction works and therefore do not form part of the Project Design Envelope, as described in **Section 4.9.1** to **4.9.4** of the **Volume 1, Chapter 4 Project Description**.

Stakeholder	Document / Meeting, Date	Comment	How and Where Addressed in the PEIR
Natural England	Scoping Opinion (02/08/24)	(ID 9) **Wind Turbine Size:** 2023 comment: It is stated that the number of turbines installed will depend on their generation capacity, i.e. up to 100 14MW turbines or fewer 27+MW turbines, with the final decision made post-consent. Information should be provided in the ES on the options most likely to occur in the final design and their associated technical details (e.g. turbine diameter) to ensure an accurate WCS is assessed. Differences in the number and size of turbines installed could have impacts for benthic and marine processes receptors. 2024 updated comments: We note that the maximum number of wind turbines has increased, since the 2023 Scoping Report, from 100 to 122. Further explanation of this design change would be welcomed in the EPP.	Parameters on the number and size of wind turbines are provided in **Section 4.8.1** of **Volume 1, Chapter 4 Project Description**. Only the turbine option with the maximum design parameters has been provided in this chapter, as a worst-case scenario, rather than a range of turbine options.
Natural England	Scoping Opinion (02/08/24)	(ID 10) **Cable Installation in Separate Trenches:** Bundling cables could considerably reduce the impact of cable installation activities and requirements for cable protection, particularly where cables will be going through designated sites. We advise that this option is considered in the construction plans.	Two trenches for the offshore export cable installation are included in the Project Design Envelope, as described in **Section 4.8.6** of **Volume 1, Chapter 4 Project Description**. Two trenches may be required to mitigate thermal constraints on the cable system, whereby separation of the cables into individual trenches removes the mutual heating effect experienced when cables are bundled.

Stakeholder	Document / Meeting, Date	Comment	How and Where Addressed in the PEIR
Natural England	Scoping Opinion (02/08/24)	(ID 35) **Technical Details to be Included:** In conjunction with the information to be gathered on the proposed offshore array and export cable corridor through survey work, the ES should include details on the following technical aspects relating to the construction and operation of the Dogger Bank D Wind Farm: • Footprint of area affected by excavation for and laying of the export cable; • Footprint of area affected by export cable protection; • Footprint of area affected by inter-array electrical cables; • Footprint of area affected by inter-array cable protection; • Estimation of electromagnetic fields (EMF) potentially arising from cables both at exterior of cables and at surface of seabed above buried cables; • Footprint of area affected by installation of Wind Turbine Generator foundations; • Footprint of area affected by installation of platform foundations; • Footprint of area affected by scour protection; • Footprint of area affected by installation vessels; • Duration and rate of cable-laying;	A description of the Project Design Envelope for the inter-array and offshore export cables, scour and cable protection, offshore foundations and construction vessels is provided in **Section 4.8** of **Volume 1, Chapter 4 Project Description**.

Stakeholder	Document / Meeting, Date	Comment	How and Where Addressed in the PEIR
		• Number and types of vessels to be used in cable-laying operations; • Routes of vessels for cable works; • Areas impacts by UXO clearance and other site preparation works; and • Whether the use of sandwave levelling and standardise mitigation measures can / should be used to avoid, reduce and mitigate impacts.	
Natural England	Scoping Opinion (02/08/24)	(ID 37) **Introduction of Hard Substrates:** We acknowledge that the deposition of hard substrate into a mainly sedimentary environment may be required for the purposes of seabed preparation / stabilisation, cable protection, scour prevention, and cable crossings. We note that some of the hard substrate will be deposited in the Dogger Bank SAC which is designated for sandbanks which are slightly covered by seawater all of the time. We encourage the Project to work to minimise the amount of hard substrate material used during the construction, operation and maintenance and decommissioning of the wind farm and that the worst-case quantity be assessed for the lifetime of the project. We note that the long-term effect of the introduction of substratum into a naturally sandy or muddy seabed is not fully understood at present and as such should be carefully considered by both the operator and regulator. We advise detailed commentary is provided in the ES on the introduction of hard substrate as part of the proposed developments to allow further understanding of the	Noted, best endeavours will be made to minimise the quantity of hard substrate that is deposited in the Dogger Bank SAC (Commitment ID C024). Commitments are presented in **Appendix 6.3 Commitments Register**. It should be noted that the offshore ECC exits the SAC to the north for this reason and to minimise the cable length in the SAC. A full assessment of the potential impacts from the introduction of hard substrate into a sandbank feature is made in **Volume 1, Chapter 10 Benthic and Intertidal Ecology**. This is based on the Project Design Envelope presented in **Volume 1, Chapter 4 Project Description**, which includes details on the type, quantity and footprint of rock protection.

Stakeholder	Document / Meeting, Date	Comment	How and Where Addressed in the PEIR
		potential nature conservation impact. This would include: • Location of deposit sites; • Type / size / grade of rock / mattresses / bags to be used; • Tonnage / volume to be used; • Contingency tonnage / volume to be used; • Method of delivery to the seabed; • Footprint of hard substrate introduced; • Assessment of the impact (particularly in the Dogger Bank SAC); and • Decommissioning potential of any introduced substrate. Where protective material cannot be avoided, we recommend using a targeted placement method, e.g. use of a fall pipe vessel rather than using vessel-side discharge methods. We also draw your attention to the recent decisions for Hornsea Project 3, Norfolk Boreas and Norfolk Vanguard where it was concluded that the placement of cable protection within Annex I sandbanks would result in an Adverse Effect on Integrity (AEOI).	

Stakeholder	Document / Meeting, Date	Comment	How and Where Addressed in the PEIR
Natural England	Scoping Opinion (02/08/24)	(ID 38) **Cable Burial Depth:** We note that the inter-array cables will be buried typically to a depth of 1m, but burial depth may range from 0.5 to 3m. Given the potential for some of these activities to occur within the Dogger Bank SAC we would like to emphasise that Dogger Bank is formed by underlying glacial sediments, if these are damaged this is a permanent impact and there is no scope for recovery. The surface sediments across Dogger Bank vary in depth (0.5m - 20m), therefore any proposed activities could have varying impacts to the glacial sediments beneath. We consider a cable burial risk assessment should give consideration to the depth of surface sediment within the cable corridors to determine micro-siting potential to avoid areas where glacial sediment is likely to be impacted.	A description of cable burial depth of offshore cables is provided in **Section 4.8.7.6** of **Volume 1, Chapter 4 Project Description**. A detailed Cable Burial Risk Assessment will be undertaken post-consent to determine the maximum realistic burial depth for both the inter-array and offshore export cables and to avoid areas of shallow surface sediment.

Stakeholder	Document / Meeting, Date	Comment	How and Where Addressed in the PEIR
Natural England	Scoping Opinion (02/08/24)	**(Overarching Advice) Transmission Assets:** Natural England welcome the significant refinement of the Project's proposed transmission and connection assets. The removal of multiple options (i.e. Hydrogen and NGET Offshore Collector Platform connections) being progressed simultaneously increases the likelihood of the Environmental Statement (ES) providing a more realistic assessment of environmental impacts of the Project, in line with the Rochdale Envelope approach. We are provisionally supportive of the proposed radial grid connection at Birkhill Wood substation, subject to full review of baseline survey data and noting our more detailed comments in Annex C. However, we think further clarity is needed in explaining how an Offshore Hybrid Asset (OHA) may be integrated within the Project. Our understanding is that an OHA may tie into the offshore infrastructure indicated within the WCS, but further clarification on this will be required in due course and ultimately clearly set out in the submitted ES. Additionally, it is not clear whether the inter-connector cables required for an OHA have been considered within the worst-case scenario parameters, which again would need addressing in the ES. We appreciate that many design details of the OHA are unknown to the Applicant at this stage, but we cannot provide detailed scoping advice on this aspect of the Project in the absence of this information. These matters will need to be fully understood and explored through the Evidence Plan Process. An indication of how and when a decision regarding the OHA will be reached would also be welcome.	A description of the Project Design Envelope approach and how it relates to the parameters set out in **Volume 1, Chapter 4 Project Description** is provided in **Section 4.2**. The Project Design Envelope covers the flexibility for the Project to be connected with an interconnector cable. To enable this potential for coordination, flexibility for up to two offshore platforms, which will form the basis of relevant environmental assessments, is included within the Project Design Envelope. One platform will be a converter station, and the second will be for a switching station. The switching station would allow for potential future coordination with an interconnector cable. No other additional infrastructure relating to an interconnector is included in the Project Design Envelope for PEIR to support coordination with an interconnector cable. The development of the project design is an iterative and ongoing process. Therefore, the description of the key infrastructure components and their parameters are indicative based on available design information at this stage. Following PEIR publication, the Project Design Envelope will be further refined and confirmed in the ES accompanying the DCO application. The detailed design of the Project will be developed within the consented envelope and boundaries prior to construction.

Stakeholder	Document / Meeting, Date	Comment	How and Where Addressed in the PEIR
Natural England	Scoping Opinion (02/08/24)	**(Overarching Advice) Transmission Assets:** Natural England recognise that the developer has re-routed the proposed export cable corridor (ECC) in order to reduce impacts on the Dogger Bank SAC, which is welcomed, though adverse effects on the SAC will nevertheless arise. We also note that the scoping area currently retains flexibility to account for potential changes to the Dogger Bank SAC boundaries. However, our advice on this matter is subject to change based on review of baseline survey data, as and when it becomes available, and noting our more detailed comments in Annex C.	Noted.

References

Royal HaskoningDHV (2024), EIA Scoping Report. Available at: https://infrastructure.planninginspectorate.gov.uk/wp-content/ipc/uploads/projects/EN010144/EN010144-000069-EN010144%20-%20Scoping%20Report%20-%20Part%201.pdf

Planning Inspectorate (2024). Scoping Opinion: Proposed Dogger Bank D Wind Farm. Available at: https://infrastructure.planninginspectorate.gov.uk/wp-content/ipc/uploads/projects/EN010144/EN010144-000071-EN010144%20-%20Scoping%20Opinion.pdf

List of Acronyms

Acronym	Definition
DCO	Development Consent Order
DBD	Dogger Bank D
EIA	Environmental Impact Assessment
MMO	Marine Management Organisation
OTNR	Offshore Transmission Network Review
SNCB	Statutory Nature Conservation Body