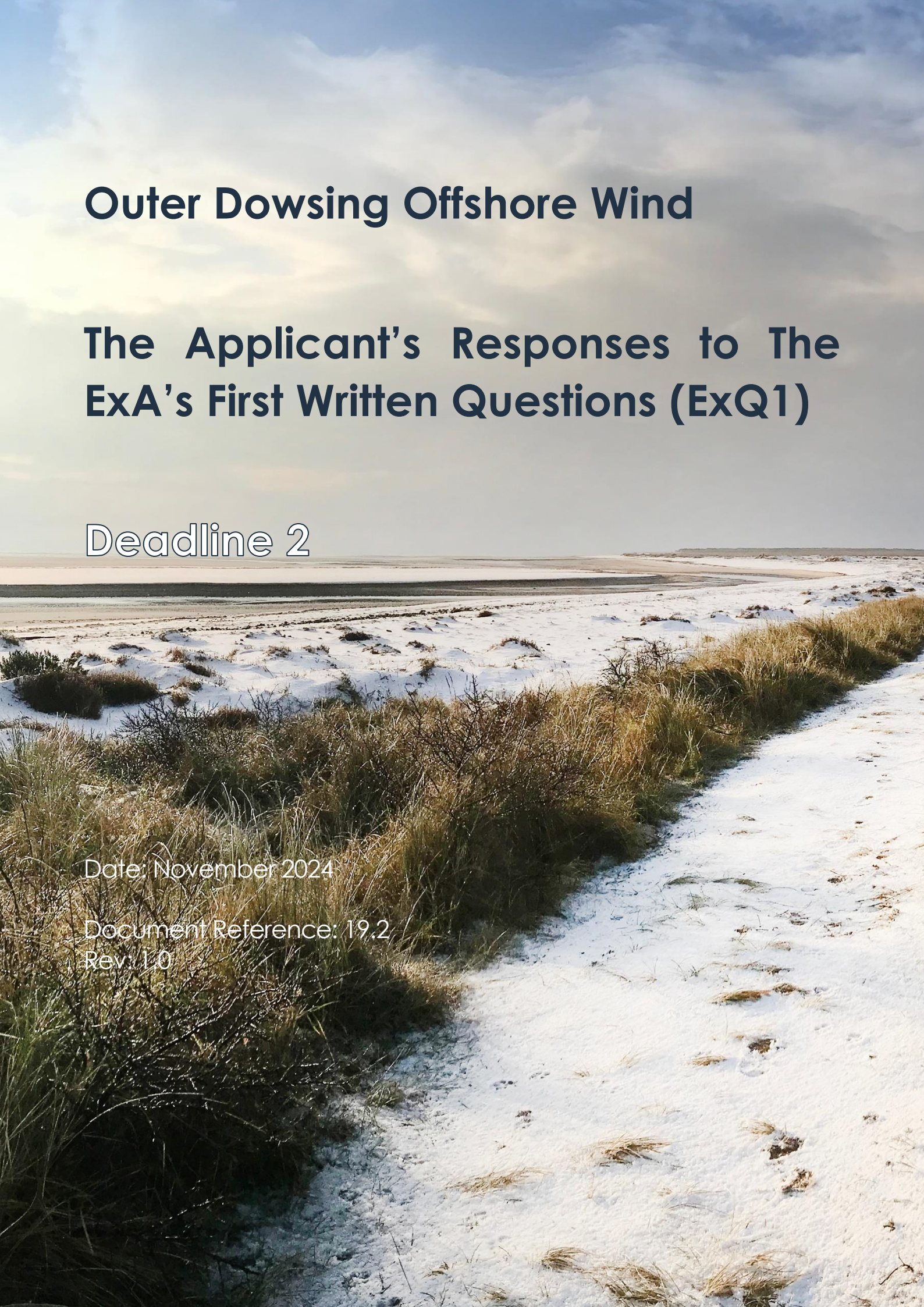
Outer Dowsing Offshore Wind

The Applicant's Responses to The ExA's First Written Questions (ExQ1)

Deadline 2



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Acronyms & Definitions

Abbreviations / Acronyms

Abbreviation / Acronym	Description
AEoI	Adverse Effect on Intergrity
AEP	Annual Exceedance Probability
AQMP	Air Quality Management Plan
AMS	Arboricultural Management Strategy
AMSL	Above Mean Sea Level
ANS	Artificial Nesting Structure
Art	Article
ALC	Agricultural Land Classification
BEIS	Department for Business, Energy and Industrial Strategy
BNG	Biodiversity Net Gain
BoR	Book of Reference
BMV	Best and Most Versatile
CA	Compulsory Acquisition
CAA	Civil Aviation Authority
CEMP	Construction Environmental Management Plan
CIC	Cable Installation Compound
CNP	Critical National Priority
CoCP	Code of Construction Practice
CoS	UK Chamber of Shipping
DAS	Digital Aerial Surveys
DCO	Development Consent Order
dDCO	Draft Development Consent Order
DESNZ	Department of Energy Security and Net ZERO
DML	Deemed Marine Licence
DNV	Det Norske Veritas
DIO	Defence Infrastructure Organisation
EA	Environment Agency
ECC	Export Cable Corridor
EMF	Electro Magnetic Field
EMP	Ecological Management Plan
EIA	Environmental Impact Assessment
EL	Examination Library
ES	Environmental Statement
ExA	Examining Authority
EM	Explanatory Memorandum
FLO	Fisheries Liaison Officer
GHG	Greenhouse Gas
GLVIA	Guidelines for Landscape and Visual Impact Assessment
GW	Gigawatt
GWRA	Groundwater Risk Assessment
HGV	Heavy Goods Vehicle
HDD	Horizontal Directional Drilling
HRA	Habitats Regulations Assessment
ICNIRP	International Commission for Non-Ionizing Radiation Protection

Abbreviation / Acronym	Description
IDB	Internal Drainage Board
IDRBNR	Inner Dowsing Race Bank North Ridge
IP	Interested Parties
JNCC	Joint Nature Conservation Committee
LAT	Lowest Astronomical Tide
LCA	Landscape Character Areas
LCC	Lincolnshire County Council
LEA	Local Economic Area
LMP	Landscape Management Plan
LWT	Lincolnshire Wildlife Trust
LIR	Local Impact Report
LNRS	Local Nature Recovery Strategy
LPA	Local Planning Authority
MCA	Maritime and Coastguard Agency
MHWS	Mean High Water Springs
MLWS	Mean Low Water Springs
MMO	Marine Management Organisation
MMMP	Marine Mammal Mitigation Protocol
MOD	Ministry of Defence
MRF	Marine Recovery Fund
NAS	Noise Abatement Systems
NE	Natural England
NFFO	National Federation of Fishermen's Organisations
NGET	National Grid Electricity Transmission Plc
NGSS	National Grid Substation
NPS	National Policy Statement
NRA	Navigational Risk Assessment
NSIP	Nationally Significant Infrastructure Project
OCC	Onshore Cable Corridor
ODOW	Outer Dowsing Offshore Wind (The Project)
OLEMS	Outline Landscape and Ecological Management Strategy
OnSS	Onshore Substation
OP	Offshore Platforms
ORBA	Offshore Restricted Build Area
ORCP	Offshore Reactive Compensation Platform
OTNR	Offshore Transmission Network Review
OWF	Offshore Wind Farm
PADSS	Principal Areas of Disagreement Summary Statement
PPEIRP	Pollution Prevention and Emergency Incident Response Plan
PRoW	Public Rights of Way
PSR	Primary Surveillance Radar
R	Requirement
RIAA	Report to Inform Appropriate Assessment
RR	Relevant Representation
RVAA	Residential Visual Amenity Assessment
SAC	Special Areas of Conservation
SF6	Sulphur Hexafluoride
SSC	Suspended Sediment Concentration

Abbreviation / Acronym	Description
SLVIA	Seascape, Landscape and Visual Impact Assessment
SoCG	Statement of Common Ground
SoR	Statement of Reasons
SoS	Secretary of State
SoS DESNZ	Secretary of State for Energy Security and Net Zero
SMP	Soil Management Plan
SSSI	Site of Special Scientific Interest
TCC	Temporary Construction Compound
TP	Temporary Possession
UK	United Kingdom
UXO	Unexploded Ordnance
WAM	Wide Area Multilateral
WCS	Worst Case Scenario
WQMMP	Water Quality Management and Mitigation Plan
WMS	Written Ministerial Statement
WTG	Wind Turbine Generator

Terminology

Term	Definition
The Applicant	GT R4 Ltd. The Applicant making the application for a DCO. The Applicant is GT R4 Limited (a joint venture between Corio Generation (and its affiliates), Total Energies and Gulf Energy Development (GULF)), trading as Outer Dowsing Offshore Wind. The Project is being developed by Corio Generation, TotalEnergies and GULF.
Array area	The area offshore within which the generating station (including wind turbine generators (WTG) and inter array cables), offshore accommodation platforms, offshore transformer substations and associated cabling will be positioned.
Baseline	The status of the environment at the time of assessment without the development in place.
Cable ducts	A duct is a length of underground piping which is used to house the Cable Circuits.
Cumulative effects	The combined effect of the Project acting additively with the effects of other developments, on the same single receptor/resource.
Cumulative impact	Impacts that result from changes caused by other present or reasonably foreseeable actions together with the Project.
Development Consent Order (DCO)	An order made under the Planning Act 2008 granting development consent for a Nationally Significant Infrastructure Project (NSIP).
Environmental Impact Assessment (EIA)	A statutory 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, which fulfils the assessment requirements of the EIA Regulations, including the publication of an Environmental Statement (ES).
Effect	Term used to express the consequence of an impact. The significance of an effect is determined by correlating the magnitude of the impact with the sensitivity of the receptor, in accordance with defined significance criteria.

Term	Definition
Environmental Statement (ES)	The suite of documents that detail the processes and results of the EIA.
Export cables	High voltage cables which transmit power from the Offshore Substations (OSS) to the Onshore Substation (OnSS) via an Offshore Reactive Compensation Platform (ORCP) if required, which may include one or more auxiliary cables (normally fibre optic cables).
High Voltage Alternating Current (HVAC)	High voltage alternating current is the bulk transmission of electricity by alternating current (AC), whereby the flow of electric charge periodically reverses direction.
Impact	An impact to the receiving environment is defined as any change to its baseline condition, either adverse or beneficial.
Intertidal	The area between Mean High Water Springs (MHWS) and Mean Low Water Springs (MLWS)
Joint bays	An excavation formed with a buried concrete slab at sufficient depth to enable the jointing of high voltage power cables.
Landfall	The location at the land-sea interface where the offshore export cables and fibre optic cables will come ashore.
Maximum Design Scenario	The project design parameters, or a combination of project design parameters that are likely to result in the greatest potential for change in relation to each impact assessed
Mitigation	Mitigation measures, or commitments, are commitments made by the Project to reduce and/or eliminate the potential for significant effects to arise as a result of the Project. Mitigation measures can be embedded (part of the project design) or secondarily added to reduce impacts in the case of potentially significant effects.
National Policy Statement (NPS)	A document setting out national policy against which proposals for Nationally Significant Infrastructure Projects (NSIPs) will be assessed and decided upon.
Onshore Export Cable Corridor (ECC)	The Onshore Export Cable Corridor (Onshore ECC) is the area within which, the export cables running from the landfall to the onshore substation will be situated.
Onshore substation (OnSS)	The Project's onshore HVAC substation, containing electrical equipment, control buildings, lightning protection masts, communications masts, access, fencing and other associated equipment, structures or buildings; to enable connection to the National Grid
Offshore Restricted Build Area (ORBA)	The area within the array area, where no wind turbine generator, offshore transformer substation or offshore accommodation platform shall be erected.
Offshore Reactive Compensation Platform (ORCP)	A structure attached to the seabed by means of a foundation, with one or more decks and a helicopter platform (including bird deterrents) housing electrical reactors and switchgear for the purpose of the efficient transfer of power in the course of HVAC transmission by providing reactive compensation
Outer Dowsing Offshore Wind (ODOW)	The Project
The Planning Inspectorate	The agency responsible for operating the planning process for Nationally Significant Infrastructure Projects (NSIPs).

Term	Definition
The Project	Outer Dowsing Offshore Wind, an offshore wind generating station together with associated onshore and offshore infrastructure.
Receptor	A distinct part of the environment on which effects could occur and can be the subject of specific assessments. Examples of receptors include species (or groups) of animals or plants, people (often categorised further such as 'residential' or those using areas for amenity or recreation), watercourses etc.
Rochdale Envelope	A description of the range of possible elements that make up the Project's design options under consideration, as set out in detail in the project description. This envelope is used to define the Project for Environmental Impact Assessment (EIA) purposes when the exact engineering parameters are not yet known. This is also referred to as the "Project Design Envelope".
Statutory Consultees	Organisations that are required to be consulted by the Applicant, the Local Planning Authorities and/or The Inspectorate during the pre-application and/or examination phases, and who also have a statutory responsibility in some form that may be relevant to the Project and the DCO application. This includes those bodies and interests prescribed under Section 42 of the Planning Act 2008.
Statement of Common Ground	A statement of common ground is a written statement produced jointly between The Applicant and another Interested Party setting out the areas of agreement and /or disagreement between parties.
Wind Turbine Generator (WTG)	A structure comprising a tower, rotor with three blades connected at the hub, nacelle and ancillary electrical and other equipment which may include J-tube(s), transition piece, access and rest platforms, access ladders, boat access systems, corrosion protection systems, fenders and maintenance equipment, helicopter landing facilities and other associated equipment, fixed to a foundation
Wind Turbine Generator (WTG) Area	The area within the order limits where Wind Turbine Generators (WTG), offshore transformer substations and offshore accommodation platform can be located following the introduction of the Offshore Restricted Build Area (ORBA).

1 Applicant's Responses to the First Round of Written Questions

1. The Examining Authority (ExA) issued the first Written Questions (ExQ1) to Outer Dowsing Offshore Wind (the Applicant) and other Interested Parties on the 6th of November 2024.
2. The Applicant has subsequently responded to each relevant question in Tables 1.1 – 1.25 below.

1.1GC General and Cross-topic Questions

Table 1.1: GC General and Cross-topic Questions

Question ID	Question addressed to	Question	Response
1 Design, parameters and other details of the Proposed Development			
Q1 GC 1.1	The Applicant	**Duration of onshore construction operations** In paragraph 189 of the Environmental Statement (ES) Chapter 3 [APP-058] the Applicant states that installing the onshore cable ducts and export cables is anticipated to take up to 42 months. How has this proposed construction period been arrived at and how does it compare with that of other recently-consented offshore wind farm projects such as Hornsea Four and the Sheringham Shoal and Dudgeon Extension Projects? What certainty can Interested Parties (IPs) have that any completed sections of the onshore Export Cable Corridor will be reinstated at the earliest available opportunity?	The Applicant's onshore Export Cable Corridor (ECC) construction period, which consists of the cable duct and export cable installation, has been developed based on a) typical industry productivity benchmarks, b) seasonal and stakeholder constraints, c) reinstatement and demobilisation, and d) accommodating complex locations and obstacles within the ECC that require specialist trenchless construction (TC) methods, additional transport access, or diversion around sensitive receptors. The Applicant has considered and undertaken opportunities to optimise and accelerate the construction period through sequential work with multiple work fronts and work teams across the route. The Applicant shall start and complete duct installation in discrete sequential sections, rather than open intrusive works across the whole route simultaneously. This approach minimises the period of interruption at each section, allowing for sequenced arrangements for reinstatement considering the seasonal working and allowing settlement time for the reinstated ground. The subsequent cable-pulling work shall not require further excavation between the start and end points of where the determined joint bays are located. Most of the work areas will be completed within 42 months as stated under Chapter 3 (Project Description), ES (APP-058) paragraph 189 and Table 8.5; however, the permanent civil infrastructure works will be sequenced and completed in line with a compound duration of 36 months. The 6 months allow for demobilisation from the works areas, access to the joint bays for final cable testing and hand over the land back to the landowners. There are some localised work areas that require a longer duration, such as the landfall and substation, which are described under DCO Chapter 3 Section 7.2; the time also allows for the demobilisation of the final work area/welfare once the work is completed. The Applicant notes the onshore construction periods of Hornsea 4 or Sheringham Shoal but would expect the differences in route, topology and receptors to result in construction periods that are not directly comparable, however. the Applicant has also reviewed the duration information of the constructed Triton Knoll and the Viking Link onshore export cable construction period. These routes are proximate to the Applicant's proposed route, and the periods are comparable. The Applicant has committed within Chapter 21 Onshore Ecology (APP-076) and Chapter 28 (APP-083) to reinstating the cable route 'as soon as possible'. This commitment is reiterated in the OLEMS (PD1-054). Requirement 12 of the dDCO requires a written ecological management plan for the relevant stage of the works, which accords with the

Question ID	Question addressed to	Question	Response
			OLEMS, to be submitted to and approved by the relevant planning authority in consultation with the relevant SNCB before that stage can commence. The ecological management plan must be carried out as approved.
Q1 GC 1.2	The Applicant	**Updates to the draft Development Consent Order (dDCO)** In order to minimise the risk of confusion and to rationalise the documents which the ExA and Ips should rely on during the Examination, the Applicant is requested to submit updated copies of the dDCO and any other related documents which do not include (or which clearly exclude) amendments or reference to elements of the application which are subject to Change Requests that have not been accepted by the ExA.	As explained in The Applicant's Covering Letter for Deadline 2 (document reference 19.1), the inclusion of the ORBA is the only change which is currently subject to a Change Request. The following versions of the dDCO are being submitted at Deadline 2: An updated version of the dDCO which includes amendments proposed by the Applicant at this deadline and the ORBA (clean); An updated version of the dDCO which includes amendments proposed by the Applicant at this deadline and excludes the ORBA (clean); A tracked version of the dDCO which highlights the amendments proposed by the Applicant at this deadline, compared with the dDCO submitted at Deadline 1 (REP1-006) and includes the ORBA; and A comparison version of the dDCO which shows the changes between the Deadline 2 versions of the dDCO, with and without the ORBA. The following versions of the Explanatory Memorandum are being submitted at Deadline 2: An updated version of the Explanatory Memorandum which includes amendments proposed by the Applicant at this deadline and the ORBA (clean); An updated version of the Explanatory Memorandum which includes amendments proposed by the Applicant at this deadline and excludes the ORBA (clean); A tracked version of the Explanatory Memorandum which highlights the amendments proposed by the Applicant at this deadline, compared with the previous version of the Explanatory Memorandum submitted at the Procedural Deadline (PD1-027) and includes the ORBA; and A comparison version of the Explanatory Memorandum which shows the changes between the Deadline 2 versions of the Explanatory Memorandum, with and without the ORBA.
Q1 GC 1.3	The Applicant	**Infrastructure security** What consideration has the Applicant given to the protection of the proposed onshore and offshore infrastructure from both acts of vandalism and the threat of terrorist attack?	The Policy Compliance Document [AS-012] states that the Applicant has consulted to ensure that security measures have been considered and included where necessary to manage security risks. No security risks have been identified. Department of Energy Security and Net ZERO (DESNZ) have already been notified during the pre-application stage about the proposals in line with paragraph 4.16.5 of EN-1. The Applicant has consulted with DESNZ to ensure security measures have been adequately considered in the design process and that adequate consideration has been

Question ID	Question addressed to	Question	Response
			given to the management of security risks. No security risks have been identified by CPNI, ONR (for civil nuclear) and/or DESNZ. In relation to acts of vandalism, security measures in relation to the onshore substation are presented in paragraph 310 of the Project Description [APP-058].
2 Environmental Statement (General)			
Q1 GC 2.1	The Applicant	**Cumulative effects updates** Provide updates, as appropriate, to the assessment of cumulative effects in the ES having regard to any progress and new details submitted in relation to other projects.	With regard to onshore cumulative impacts from other Nationally Significant Infrastructure Projects (NSIPs) the Applicant was requested by the ExA (PD-011) to provide an initial 'Inter-relationship with other infrastructure projects' Report at Deadline 2 (Document 19.6), which is then requested to be updated at subsequent deadlines. This report has considered 18 other NSIPs across Lincolnshire. The report highlights the Applicants commitment to working with other developers of relevant NSIP projects to share information which will help to reduce possible cumulative effects where construction programmes have the potential to overlap. Regarding non-NSIP onshore projects, the Applicant has continued to monitor the relevant local authority planning portal for planning applications, seeking to identify any projects which could have the potential to result in cumulative effects. To date, no additional projects have exceeded the thresholds that would require them to be considered for screening as per the methods set out in 6.3.5.3 Appendix 3 Onshore Cumulative Effects Assessment Approach (APP-148). With regard to offshore cumulative effects, The Applicant currently considers that the relevant NSIPs (including those that have received a Section 35 Direction under the Planning Act 2008) for which updates are available since submission of the Outer Dowsing DCO Application on 20th Match 2024 are: Eastern Green Link 3 and 4 (Scoping Report 29th July 2024 and Scoping Opinion 5th September 2024), Dogger Bank South Offshore Wind Farms (DCO application submitted 12th June 2024); Five Estuaries Offshore Wind Farm (DCO application submitted 25th March 2024); North Falls (DCO application submitted 26th July 2024); Rampion 2 (DCO examination closed 6th August 2024); and SEP and DEP (DCO granted 17th April 2024, Non Material Change application submitted 23rd July 2024). The Applicant is undertaking a review of this information, and any other relevant projects (e.g. non NSIPs), and will submit an update to the Examination in due course.
Q1 GC 2.1	Marine Management Organisation (MMO)	**East Marine Plans** Is the MMO satisfied that the Policy Compliance Document [AS-012] addresses its request for a marine plan policy assessment in one document requested in its Relevant Representation (RR) [RR-042]? If not, what would the MMO require?	The Applicant notes this question is directed towards the MMO but wishes to highlight to the ExA that the Applicant has provided a detailed response to the MMOs Deadline 1 submission (REP1-056) at Deadline 2 (this deadline) (document reference 19.4) which includes an update in relation to the Applicant's assessment of marine plan policies. To avoid duplication, the full response is not repeated here.

1.2 Benthic Ecology, Intertidal, Subtidal and Coastal Effects

Table 1.2: Benthic Ecology, Intertidal, Subtidal and Coastal Effects

Question ID	Question addressed to	Question	Response
Benthic Ecology, Intertidal, Subtidal and Coastal Effects			
Q1 BE 2.1	The Applicant	**Securing Mitigation Measures for Sandbanks** Environmental Statement (ES Chapter 9 [APP-064] Table 9.12 identifies three additional mitigation measures for benthic and intertidal ecology. Can the Applicant identify where each of these three measures are secured within the draft Development Consent Order (dDCO) or amend the dDCO to ensure that these measures are secured.	The Applicant can confirm that the following mitigation measures as presented in ES Chapter 9 (APP-064) Table 9.12 are secured within relevant outline plans: Removable cable protection on sandbank features within the Inner Dowsing, Race Bank and North Ridge (IDRBNR) Special Area of Conservation (SAC) (section 5.2, 8.5 Outline Cable Specification and Installation Plan) (version 3 submitted as part of Deadline 2); Micrositing around Sabellaria spinulosa reef (section 4, 8.22 Outline Biogenic Reef Mitigation Plan (version 3 submitted as part of Deadline 2); and No jack-up vessels within the SAC (section 5.2, 8.5 Outline Cable Specification and Installation Plan)(version 3 submitted as part of Deadline 2)). Condition 13(1)(j), Part 2, Schedule 11 of the dDCO requires a biogenic reef mitigation plan to be submitted to and approved by the Marine Management Organisation (MMO) prior to commencement of the licenced activities (or any part). The biogenic reef mitigation plan is required to be in accordance with the outline biogenic reef mitigation plan. Condition 13(1)(d)(ii), Part 2, Schedule 11 of the dDCO requires a cable specification, installation and monitoring plan to be submitted to and approved by the MMO prior to commencement of the licenced activities (or any part). The cable specification, installation and monitoring plan must be in accordance with the outline cable specification and installation plan. Condition 14(5), Part 2 of Schedule 11 of the dDCO requires the licensed activities to be carried out in accordance with the approved plans.
Q1 BE 2.2	Natural England (NE)	**Environmental Statement (ES) conclusions** The Applicant in ES Chapter 7 Marine Physical Processes [APP-062], Chapter 8 Marine Water and Sediment Quality [APP-063 superseded by AS1-038] and Chapter 9 Benthic and Intertidal Ecology [APP-064] concludes no likely significant effects. TheExA notes NE's concerns in relation to the assessment and conclusions in relation to *Sabellaria Spinulosa* reef and Sandbanks. For all other issues in these Chapters, in Environmental Impact Assessment (EIA) terms does NE agree with the Applicant's conclusions of no likely significant effects? If not, why not?	
Q1 BE 2.3	NE	**Suspended Sediment Concentration and Seabed Level Changes** NE's Relevant Representation (RR) [RR-045 NE Ref B1] states that 'Natural England is concerned that impact pathways to key receptors due to construction-related	

Question ID	Question addressed to	Question	Response
		suspended sediment concentration (SSC) and seabed level changes have not been thoroughly considered by the Applicant.' The Applicant has responded [PD1-071 NE Ref B26]. Is NE satisfied with the response? If not, please detail specifically what is required.	
Q1 BE 2.4	NE	**Operations and Maintenance Activities** Is NE satisfied with the Applicant's response to its concerns relating to the effects of operations and maintenance activities on marine physical processes? [PD1-071 NE Ref B4] If not, please detail specifically what is required.	
Q1 BE 2.5	NE	**Scour Volumes Maximum Design Scenario (MDS)** Is NE satisfied with the Applicant's response to its concerns relating to the results of the scour assessment for the Wind Turbine Generator (WTG) foundations? [PD1-071 NE Ref B8] If not, please detail specifically what is required.	
Q1 BE 2.6	The Applicant, NE	**Cumulative Assessment** Can the Applicant please explain in further detail why it has not used the recommended NE and Joint Nature Conservation Committee (JNCC) best practice? [PD1-071 NE Ref B20]. Can NE explain the difference between the Applicant's current approach and NE's recommended best practice and the likely implications of not following the best practice?	The tiering approach identified in Table 7.11 of Chapter 7 Marine Physical Processes (APP-062) follows the criteria provided in PINS Advice Note 17 – Cumulative Effects Assessment, which was the most current guidance at the point of DCO application and is therefore considered best practice. This advice was updated in September 2024 and replaced by Nationally Significant Infrastructure Projects (NSIPs): Advice on Cumulative Effects Assessment, which also suggests a three-tier approach. As outlined in the Table 1.1, ID 001 of Response to the Rule 17 Letter dated 3 July 2024 (AS-013) and the Applicant's response to relevant representations B20 (PD1-071), tiering guidance from NE suggests seven tiers which the Applicant considers overcomplicates the assessment. The Applicant notes that, as shown in Table 7.12 and 7.13 (APP-062), built and operational Projects have been considered as appropriate within Tier 1 for Marine Physical Processes.
Q1 BE 2.7	The Applicant	**Sandwave Levelling Assessment** Provide an update on the progress of the Project-specific Sandwave Levelling Assessment? [PD1-071 NE Ref B21] and any implications.	The Applicant can confirm that the current intention is to submit a Project-specific Sandwave Levelling Assessment at Deadline 3.
Q1 BE 2.8	NE	**Secondary Scour** The Applicant has highlighted the relative lack of evidence (numerical, empirical and post monitoring studies) concerning secondary scour formation. Is NE satisfied with the Applicant's justification of evidence the Applicant has used? [PD1- 071 NE Ref B31] If not, what evidence would NE like to see the Applicant use?	

1.3 Civil and Military Aviation and Communication

Table 1.3: Civil and Military Aviation and Communication

Question ID	Question addressed to	Question	Response
Civil and Military Aviation and Communication			
Q1 Civil and Military (CM) 1.1	The Applicant Defence Infrastructure Organisation (DIO)	**Mitigation for Primary Surveillance Radar (PSR) at Staxton Wold and Neatishead and Cromer and Claxby** Chapter 16 of the ES [AS1-042] identifies "Major Significant" adverse effects on NATS En Route Ltd PSR at Cromer and Claxby and at Ministry of Defence (MOD)	The Applicant continues to engage with the Ministry of Defence (MoD) DIO in relation to the mitigation that will be required in relation to PSR at Staxton Wold and Neatishead.

Question ID	Question addressed to	Question	Response
	National Air Traffic Services (NATS) En Route Ltd	Staxton Wold and Neatishead Air Defence PSR systems. With additional mitigation to be agreed with NATS En Route Ltd and the MOD, the residual effect is deemed in the Environmental Statement (ES) to be "Not Significant" The Examining Authority (ExA) notes from the Relevant Representation [RR-016] from the DIO and Statement of Common Ground with the Ministry of Defence (MOD) [REP1-035] that a mitigation scheme has yet to be submitted for assessment. Can the Applicant provide an update on the progress of discussions with the DIO and MOD to agree upon suitable mitigation? In responding, please also provide clarification on the following: The timeframe for submission of a mitigation scheme for assessment as requested by the DIO. Progress made by the Air Defence and Offshore Wind Windfarm Mitigation Task Force in identifying mitigation. The likelihood of technical solutions becoming available within the time limit for the implementation of the Development Consent Order (DCO) (as specified in National Policy Statement (NPS) EN-1 para 5.5.57) Provide clarification on the means by which the proposed mitigation "will be secured by an industry standard Radar Mitigation Scheme Agreement (RMSA)" as indicated in The Applicant's planning obligations and side agreements tracker [REP1-023]. What would be the implications of agreement not being secured before the close of Examination? In addition. Can the DIO comment on the Applicant's suggested potential mitigation measures as referenced in Section 16.7.2.3 of the ES? The ExA notes that a draft Mitigation Services Agreement with NATS En Route was expected by the Applicant to be available in October. Please provide an update on progress. Paragraph 120 of Chapter 16 of the ES states that *"Mitigation will be required if both modelling of the windfarm design, based upon parameters outlined in Table 16.4, indicates that WTGs will be above the PSR system threshold levels that allow the WTG blades to be presented on PSR displays, and the airspace is operationally significant to the PSR operator"* Has such modelling taken place? If not, why is it not possible to undertake modelling based upon the maximum design scenario? Paragraphs 120 and 141 of the ES indicate that mitigation may not be required during the operational period of the Proposed Development as it is anticipated that "MOD and NERL will procure "next generation" PSRs…" Can the DIO and NATS En Route Ltd comment on the likelihood of this occurring during the operational period?	The Applicant expects that mitigation will be secured through an industry standard RMSA agreed through the work being undertaken as part of the Air Defence and Offshore Windfarm Mitigation Task Force. This is because the full costs of the long-term radar mitigation solutions identified by MoD Programme Njord will be funded via an alternative route, funded by Government, and the funding requirement is therefore removed from offshore wind developers. This covers the first four radar sites required to support the delivery of the UKs 2030 offshore wind pipeline: Buchan, Brizlee Wood, Neatishead and Staxton Wold. Given the UK government has committed to funding the technical solution to ensure it is in place by 2030 the Applicant is confident the relevant mitigation solutions will be in place before the Project is operational. In relation to NATS En Route, the Applicant received a draft Mitigation Services Agreement on 11th November 2024. The Applicant has now inserted requirement 32into the draft Development Consent Order (dDCO) to secure the relevant mitigation measures related to NATS. The scope of services in the Mitigation Services Agreement includes costs incurred by NATS in relation to any system changes, updates, or upgrades in NATS' or NERL's systems and infrastructure which require a reconnection, interface change or engineering change to the technical solution. The modelling referred to in paragraph 120 of Chapter 16 of the ES (AS1-042) is the radar line of sight modelling that has been undertaken and is detailed in Appendix 16.1: Airspace Technical Report (APP-173).

Question ID	Question addressed to	Question	Response
		Can the Applicant confirm what provisions are in place to ensure that the necessary mitigation will be maintained during any future transition to next generation PSRs?	
Q1 CM 1.2	DIO	**Physical obstruction** To address potential issues related to physical obstruction of aircraft, the DIO's Relevant Representation [RR-016] requests that *"conditions are added to any consent issued requiring the submission, approval and implementation of an aviation lighting scheme, and that sufficient data is submitted to ensure that structures can be accurately charted to allow deconfliction*". In response [PD1-071], the Applicant refers to Condition 10 of the Deemed Marine Licences (DML), Schedules 10 and 11 and Requirement (R) 27 in the dDCO [AS1-024]. Can the DIO confirm if it is satisfied with the Applicant's response [PD1-071] and current drafting of the dDCO in this regard? If not, what changes should be made to the dDCO?	
Q1 CM 1.3	The Applicant DIO	**Impacts scoped out of the assessment - Holbeach Air Weapons Ranges** The ExA notes the Statement of Common Ground with MOD [REP1-035] which states that "*The Onshore cable corridor may pass through the statutory safeguarding zone surrounding Holbeach Air Weapons Range. The MOD should be consulted on any works carried out within this zone*.". Section 16.5.1.2 of the ES confirms that potential impacts on the Air Weapons Range have been scoped out. Can the Applicant confirm if this has any implications for the ES. Can the DIO please elaborate on this concern and how it might be remediated with revised drafting in the dDCO?	The Applicant can confirm that the onshore cable route does not interact with the statutory safeguarding zone surrounding Holbeach Air Weapons Range and therefore there are no implications for the ES. A figure detailing this has been provided in Appendix 1.3 Q1 CM 1.3.
Q1 CM 1.4	The Applicant DIO NATS En Route Ltd	**Impacts scoped out of the assessment - construction** Section 16.5.1.2 of the ES explains [AS1-042] that construction effects on PSR are scoped of the assessment on the basis that Wind Turbine Generators (WTG) only impact upon radar when the blades are rotating at operational speeds. Could operational speeds be reached in any testing and set up prior to operation? If so, what implications would this have for the conclusions of the ES and is any mitigation required? Do the Defence Infrastructure Organisation and NATS En Route agree with this assessment? If not, please set out any reasons for disagreement?	The Applicant confirms that operational speeds would not be reached during WTG installation and set-up prior to WTG commissioning. The Applicant continues to engage with NATS and MoD in relation to relevant mitigation measures and expects relevant mitigation measures will need to be in place prior to the rotation of any WTG blade. The Applicant will provide an update in relation to ongoing discussions with NATS and MoD at Deadline 4.
Q1 CM 1.5	The Applicant DIO NATS En Route Ltd	**Impacts scoped out of the assessment – decommissioning** Section 16.5.1.2 of the ES [AS1-042] explains the Applicant has scoped out impacts on PSR during decommissioning as *"Any mitigations will remain in place until the blades of the last WTG stop rotating"* To the Applicant: Provide signposting which highlights where the commitment for mitigations to remain in place until the last WTG blades stop rotating is secured? To DIO and NATS En Route: Do you agree with this approach? If not, please set out any reasons for disagreement.	The Applicant has updated the dDCO at this Deadline to include Requirement 32 to ensure the mitigation will be in place in relation to impacts on NATS infrastructure. In discharging this Requirement the Secretary of State must approve the primary radar mitigation scheme, and this process will ensure no WTG can rotate without the radar mitigation being in place. In relation to DIO, the Applicant expects to insert a Requirement into the dDCO at Deadline 4.

Question ID	Question addressed to	Question	Response
Q1 CM 1.6	The Applicant	**Maximum design scenario – blade tip height** The Aviation Technical Report [APP-173] assesses a maximum blade tip height of 400m Above Mean Sea Level (AMSL). The maximum design scenario specified in Table 16.4 of Chapter 16 of the ES [AS1-042] references this height as well as 403m above Lowest Astronomical Tide (LAT). Paragraph 1.3.3.2 of the Aviation Technical Report provides an explanation of the difference in height between AMSL and LAT, however, it is not clear why the height above LAT is not assessed when this is the measurement considered in other chapters of the ES and specified in the design parameters in the dDCO [AS1-024]. Please provide clarification on this matter.	In aviation, vertical distances are measured above mean sea level or above specified points such as an aerodrome. The maximum blade tip height was expressed as a height AMSL when assessing the WTGs so that a common vertical reference datum was used for the airspace analysis. The radar line of sight modelling software uses either ground level or sea level as the vertical reference datum, so again tip heights were converted from above LAT to AMSL for the radar analysis.
Q1 CM 1.7	The Applicant	**Maximum design scenario – maximum number of return helicopter trips** Table 16.4 of Chapter 16 of the ES [AS1-042] specifies a maximum number of 384 helicopter return trips during construction and decommissioning phases and 2480 yearly return trips during operation and maintenance. How are these figures calculated? Please define "return trip". What controls are in place to ensure that the maximum design scenario for helicopter trips is not exceeded and to avoid greater effects from those assessed as the worst-case scenario ES?	A return trip is defined as a flight out to the Offshore Wind Farm (OWF) and back to the base. The return helicopter trips specified within table 16.4 of Chapter 16 (AS1-042) have been used to inform relevant assessments throughout the ES and included in the maximum design scenario (MDS). In accordance with the Infrastructure Planning (Environmental Impact Assessment) Regulations 2017 and detailed in Advice Note Nine: Rochdale Envelope (The Planning Inspectorate, 2018), Paragraphs 3.6.1 – 3.6.3 of NPS EN-3 and Paragraphs 4.3.10 – 4.3.17 of NPS EN-1 the ES provides a MDS to allow for flexibility. The number of return helicopter trips have been assessed in the Environmental Statement which is to be a certified document (pursuant to Article 40 of the dDCO) and the works authorised under the terms of the Order are limited to those assessed in the Environmental Statement.
Q1 CM 1.8	The Applicant DIO	**Wide Area Multilateral (WAM) network** Table 16.2 of Chapter 16 of the ES [AS1-042] refers to a safeguarded microwave link between two masts which provide air traffic services in the area which crosses the onshore cable route south of the Haven, as subject to consultation in 2023. The need for consultation with the MOD on works to ensure that the link is not impeded is identified. Can the Applicant confirm if the onshore cable corridor, or any other element of the Proposed Development, is likely to impede the WAM network in this location or anywhere else? If so, what mitigation measures are proposed and how are they secured? Does the DIO agree with the Applicant's approach? If not, please set out any reasons for disagreement?	Based on DIOs description of the WAM network in the vicinity of the order limits it has not been possible to identify the locations of the masts in question, or gain an understanding of the approximate elevation of the transmitters and receivers. Without this information it is not possible to confirm the elevation of the Fresnel zone, and thus the likely need for clearance. However, such transmitters / receivers are typically installed on building rooftops or on masts between 10 – 20m tall. The export cable corridor will be buried underground so the only potential for interference would be from the passage of construction vehicles, or construction of temporary earth bunds. However, as typical construction vehicles are generally no taller than 3 – 4m, it is considered that no vehicles would be tall enough to cause interference with an antenna mounted at 10 – 20m above ground. If further details are made available by the MoD and it is found that interference could occur, additional mitigations could be implemented. These could be in the form of; a) Limits to the size of machinery used within the affected area,

Question ID	Question addressed to	Question	Response
			b) Limits to the height of earth bunds / stockpiles, c) Use of trenchless techniques to remove the need for construction traffic to pass through the affected area. Regardless of the above, it is considered highly unlikely that construction traffic would cause any interference with the microwave link. As the area is intensively farmed, and most farming machinery is a comparable size to construction machinery, the Applicant would anticipate that the transmitters and receivers are already mounted at sufficient elevation to avoid interference from farming activity.
Q1 CM 1.9	The Applicant DIO NATS En Route Ltd	**Aviation mitigation referencing** Chapter 16 of the ES [AS1-042] identified numerous mitigation measures. However, it is not always clear where measures are secured. Examples include the preparation of a "Lighting Management Plan" (para. 87), "Emergency Response and Cooperation Plan" (para. 88) and a "Lighting and Marking Plan" (para. 170) that are not identified in the dDCO or Schedule of Mitigation [PD1-058]. Furthermore, the Schedule of Mitigation (ref. 33) refers to the provision of an "Aids to Navigation Plan" secured by R27 of the dDCO. However, such a document is not identified in Requirement 27 of the dDCO [AS1-024] or in Chapter 16 of the ES. Can the Applicant please provide clarity on the above.	The Applicant confirms that the references within Chapter 16 to a "Lighting and Marking Plan" and "Lighting Management Plan" are a typographic error and the mitigation measures should only have referred to the implementation of a "Aids to Navigation Plan", which will contain all required information on lighting and marking measures for the Project. The requirement for an Aids to Navigation Plan is secured through Condition 13(1)(i) of Part 2 of Schedules 10 and 11 of the dDCO. The need for an Emergency Response and Cooperation Plan (ERCoP) is required under MGN654, adherence to which is secured through Condition 15 of Part 2 of Schedules 10 and 11 of the dDCO.
Q1 CM 1.10	The Applicant Orsted Hornsea Project Four Limited Race Bank Wind Farm Limited	**Coordination of radar mitigation with other offshore windfarms** Orsted Hornsea Project Four Limited's Relevant Representation [RR-051] stated that it is "*an active member ensuring the co-existence of radar and offshore wind and must be kept informed of any proposals by the Outer Dowsing Applicant in this regard.*" ▪ How are the parties working together to address this? Race Bank Wind Farm Limited's Relevant Representation [RR-054] sought clarification on whether existing radar mitigation solutions have been considered to ensure that they are not adversely affected. The Applicant provided a response on 19 September [PD1-071]. ▪ Does Race Bank Wind Farm Limited have any further comments on this matter?	The Applicant assumes that Orsted Hornsea Project Four Limited are referring to being an active member of the Offshore Wind Industry Council (OWIC) Aviation Task Force. The Applicant is also an active member of the OWIC Aviation Task Force as such Orsted Hornsea Project Four Limited will be kept up to date as required through the OWIC Aviation Task Force.
Q1 CM 1.11	The Applicant Natural England	**Aviation and navigation lighting attracting birds** Paragraph 2.8.240 of NPS EN-3 requires aviation lighting to be minimised or on demand to avoid attracting birds. In Chapter 16 of the ES (Table 16.1) [AS1-042], the Applicant seeks to address the policy and states that *"In accordance with ANO Article 223, lighting intensity will be reduced at and below the horizontal and further reduced when visibility in all directions from every WTG is more than 5km."* R27 (aviation lighting) of the dDCO [AS1-024] requires consultation with DIO Safeguarding and the Civil Aviation Authority.	At the detailed design stage, to install lighting that meets minimum safety requirements, the Applicant will comply with the Air Navigation Order (ANO) (2016), the DIO and the Civil Aviation Authority (CAA). Lighting meeting MOD minimum requirement will be installed and maintained throughout the lifetime of the project. The Applicant will aim to minimise impacts from the attraction of birds through, where permitted within the requirements above, the following mitigation measures, as set out within Chapter 12 of the ES.

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		Can the Applicant elaborate on how the need for lighting to avoid attracting birds will be addressed at the detailed design stage and through the discharging of R27? Does Natural England have any comments to make on this matter? Should it be identified as a consultee for aviation lighting under R27?	Not using lighting where it is not required, either through not lighting every structure (as agreed for the Viking windfarm if possible, or through increasing the distance between lights in some other way). Use of flashing lights and not steady burning lights where possible. Use of white or green lights where possible. Reducing the intensity of lights where possible Shielding or down-lighting where possible Whilst the Applicant will endeavour to adhere to these mitigation measures where practicable for offshore structures, this cannot be at the risk of safety of marine users and aviation. As such, the Applicant would not consider it appropriate for Natural England to be a consultee on Aviation Lighting.

1.4Climate Change

Table 1.4: Climate Change

Question ID	Question addressed to	Question	Response
Climate Change			
Q1 CC 1.1	The Applicant	**Sulphur Hexafluoride (SF6)** In reference to [APP-086] Chapter 31, Tables 31.4 and 31.9 of the Environmental Statement (ES), which detail the usage of Sulphur Hexafluoride (SF6) in the project materials, NPS EN-5 suggests that applicants should explore redesigning the proposed development to eliminate reliance on SF6-based assets. Set out what alternative designs were evaluated to avoid the use of SF6, and the reasons for rejecting these alternatives? Additionally, what measures will be implemented to prevent the release of SF6 into the atmosphere during the decommissioning of substations or other assets where SF6 has been utilised?	Paragraphs 2.9.59 to 22.9.64 of the National Policy Statement (NPS) for Electricity Networks Infrastructure (EN-5), suggest applicants should, at the design phase of the process consider carefully whether the proposed development could be reconceived to avoid the use of Sulphur Hexafluoride (SF6) reliant assets. As the Applicant progresses discussions with its potential suppliers during detailed design, post consent, the Applicant will actively explore ways to reduce and mitigate the Project's use of SF6, which cannot currently be eliminated from the design entirely. As part of engineering electrical system and Wind Turbine Generators (WTGs) design development, the Applicant will review technologies on the market which are SF6-free. The Applicant has identified that SF6 may be the only practicable option for some engineering designs, such as the Offshore Reactive Compensation Platform (ORCP) and Onshore Substation (OnSS) designs, due to the limitation of current and expected technology available and the supply chain constraints. The Applicant's intention is that they shall only deploy SF6 solutions where no practicable substitutes exist. With regards to the measures to be implemented to prevent the release of SF6 into the atmosphere during the decommissioning process, the Applicant will submit its decommissioning plans in accordance with the requirements of the draft DCO (Document 3.1) Requirements 7 (Offshore Decommissioning) and 24 (Onshore Decommissioning). As part of the specific requirements concerning the decommissioning process, the Applicant shall provide a robust monitoring and de-gassing plan of any SF6 equipment, which shall

Question ID	Question addressed to	Question	Response
			be removed and disposed of by a licenced contractor in full compliance with procedures at the time of the works. These plans will be prepared in accordance with the requirements of the Energy Act 2004 and the relevant guidance and best practice or other legislation and guidance in force at the time of decommissioning.
Q1 CC 1.2	The Applicant	**Greenhouse Gas Emissions** Considering the Outer Dowsing Offshore Wind Farm's planned capacity of 1.5GW, what is the Applicant's assessment of the potential for construction emissions to exceed the operational emissions savings if the actual generating capacity of the installed turbines falls short of 1.5GW? Additionally, should the assessment be updated to account for the uncertainties surrounding the exact generating capacity and the specific turbine technology to be used?	The 1.5GW to which the question refers is the "installed capacity" of the windfarm, which is the number of turbines multiplied by their nominal maximum generating power. The calculations that underpin the Greenhouse Gas (GHG) assessment do not assume that the windfarm will generate 1.5GW, since this would imply that all of the turbines are operating at 100% efficiency for 100% of the year. The ratio between the actual operating efficiency and this theoretical maximum is the "load factor" discussed in Section 31.7.3 (APP-086). Three load factor values are presented from literature. The first, from RenewableUK, is the rolling average actual performance of offshore wind for the past five years, with a value of 40.58%. The second, from Department for Business, Energy and Industrial Strategy (BEIS)/Det Norske Veritas (DNV), is 52.9%. The third, from Department of Energy Security and Net Zero (DESNZ), is the value used in Contracts for Difference calculations, and is 61.5%. The default calculation adopts the smallest of these values, assuming that the windfarm will only generate 40.58% of its theoretical maximum power. It is reasonable and appropriate to regard this as a pessimistic assumption, since it represents the actual performance of all operating offshore windfarms over the past five years, some of which will be quite old (e.g. the UK's oldest operational offshore windfarm, North Hoyle, opened in 2003, and SLR estimates the average age of a UK operational offshore wind farm to be around nine years) and relatively inefficient (e.g. North Hoyle delivered 27.3%[1] in the year to May 2022), compared with the potential performance of new, state-of-the-art turbines. Even using this pessimistic value, the windfarm is predicted to "pay-back" the embedded carbon in its construction within 3.2 years of beginning operation (if deploying 100% jacket/pile foundations) or within 2.8 years (if using 50:50 mix of jacket/pile and gravity-based foundations). As an even more pessimistic test, a calculation was performed with a load factor of just 10%. Even with this unrealistically low level of performance, the 100% jacket/pile foundation scenario still paid back its embedded carbon in 12.6 years, little more than a third of the way through its scheduled 35-year operating lifetime. For these reasons, it is clear that, under even the most pessimistic of scenarios, the windfarm will certainly pay back its embedded carbon in good time. As such, there is no realistic prospect that construction emissions would ever exceed the emissions savings that will accrue from operating the windfarm. For the same reasons, there is no need to update the assessment to account for the uncertainties. These have already properly been accounted for in the pessimistic

[1] Data from https://energynumbers.info/uk-offshore-wind-capacity-factors by Andrew ZP Smith, ORCID 0000-0002-8215-4526

Question ID	Question addressed to	Question	Response
			assumptions utilised in the assessments, which provide a robust and reasonable basis for decision-making in this case. .
Q1 CC 1.3	The Applicant	**Greenhouse Gas Emissions during Operation** The Outline Offshore Operations and Maintenance Plan [APP-275, Table 1.1] states that it is not anticipated that large components (e.g., wind turbine blades) would frequently require replacement during the operational phase; however, the failure of these components is possible. ES Chapter 31 [APP-086, Table 31.9] lists the anticipated materials needed during operation. Please provide the Applicant's assessment of the replacement of large components (e.g., wind turbine blades) during the 35-year design life, including the anticipated need and proposed program for these replacements. Additionally, explain how this will affect Greenhouse Gas Emissions during operation.	The maximum number of component replacement events is set out in Table 9.1 of Environmental Statement (ES) Chapter 3 Project Description (APP-058). Given that large component replacement would only occur in the event of a component failure, it is not possible to provide a programme for such un-planned maintenance activities. The effect on greenhouse gas emissions from the replacement of large components was considered through the sensitivity test which was conducted as part of the greenhouse gas assessment (ES Chapter 31, Section 31.7.5, APP-086). This test considered a doubling of the material burdens of the project, which is equivalent of everything in the windfarm needing to be built twice. This is also the equivalent of calculating a scenario where all the components needed to be replaced, therefore including the potential replacement of large components. Even under this conservative scenario, the windfarm paid back its embedded carbon within 5.1 years, under a sixth of the way through its scheduled 35-year operating lifetime. For another recent offshore windfarm project, the burden of maintenance over a 35-year design life has been estimated at 2% of the total material burden. In that context, the Applicant's sensitivity test is 50 times worse than what is expected to be required for the aforementioned recent project.
Q1 CC 1.4	The Applicant	**Post decommissioning Onshore and Offshore Cables** Paragraph 24.7.2.1 of Chapter 24 [APP-079], 31.6.6 of Chapter 31 [APP-086] and 7.12.3 of Chapter 7 [APP-062] indicate that the buried onshore and offshore cables would be left in place during decommissioning. Please explain the management strategies for these cables if they become exposed post decommissioning due to factors such as coastal erosion. Specifically, address how potential hazards to people or the environment, as well as any unacceptable visual impacts, would be mitigated and set out how this mitigation would be secured, or provide signposting to where this mitigation is secured within the application.	It is not correct that paragraph 7.12.3 of ES Chapter 7 (APP-079) indicates that offshore cables would be left in place during decommissioning, this paragraph explained that Project infrastructure will be decommissioned in accordance with the decommissioning plan and best environmental practice at the time, and that this could potentially include cables remaining in situ. Onshore, it is expected that cable would be left in-situ to avoid adverse effects on the environment and communities associated with the works needed to facilitate removal. The decommissioning process for the ECC has not been determined regarding the final decommissioning policy for the onshore cables, considering that industry best practices, rules and legislation change over time. Should onshore cables be removed from the installed ducts, they would be recycled to allow the infrastructure to be re-used. The Applicant will submit its decommissioning plans in accordance with the requirements of the draft DCO (Document 3.1) Requirements 7 (Offshore Decommissioning) and 24 (Onshore Decommissioning). These plans will be prepared in accordance with the requirements of the Energy Act 2004 and the relevant guidance and best practice or other legislation and guidance in force at the time of decommissioning. The post-decommissioning issue referred to would be addressed at the time of the preparation of the plans. The offshore plan requires the approval of the Secretary of State, while the onshore plan requires the approval of the LPA in consultation with the Environment Agency, relevant highway authority and the relevant statutory nature conservation body.

Question ID	Question addressed to	Question	Response
			It should be noted, regarding the landfall cables, the Applicant is installing the cables at a significant depth to protect against future coastal erosion. The landfall cables under the sea defence will be installed at a depth of approximately 15-17m and approximately 11-12m deep under the beach in order to avoid the potential for exposure. This matter, and confirmation on burial depth, was discussed with the Environment Agency (EA) in October 2024. Response from the EA is given in paragraph 4.4, of REP1-048.
Q1 CC 1.5	The Applicant	**Onshore Substation (OnSS) Decommissioning impact on Climate Change** In its WR, the EA [REP1-048, Paragraph 8.7], *the EA requests that the Applicant either carries out an assessment of the raised platform and OnSS remaining in place beyond 2065 (using at least 75 years to form a starting point) and in particular the impact this will have on 3rd parties in relation to Climate Change. Alternatively, the DCO must include a requirement to ensure the OnSS is fully decommissioned in 2065 and the land restored to its original, pre-construction, level.* Please provide the response to this matter?	The Applicant is carrying out further modelling to address this issue and has scheduled engagement with the EA to discuss the results. The Applicant has modelled flood depth, using the 1 in 1,000 Annual Exceedance Probability (AEP) and 35 years plus climate change (as the predicted lifetime of the Project) to establish the design level required to protect essential infrastructure. The impact of the Project on third parties during this flood event has been assessed as insignificant, in terms of flood depth, extent and hazard rating. The modelling of the Project and assessment is part of the OnSS FRA (AS1-070,072,074,076,078,080,082,084). The further modelling being undertaken assesses the impact of the Project (in terms of flood hazard to third parties) using 75 years plus climate change allowances. The Applicant is continuing to engage with the Environment Agency regarding this matter. The Applicant has modelled a range of scenarios at 75 years, including the most pessimistic approach, of a 1 in 1,000 AEP flood event, with upper-end climate change allowances, combined with a breach of the River Welland flood defences at the most sensitive location, in relation to the ONSS. The Applicant has shared the preliminary findings of the modelling with the EA, which shows that the change to flood hazard to third parties is less at 75 years than in the assessment that has been carried out for 35 years. This is because at 75 years, the flood extent is greater, and the effect of the Project is proportionately smaller. The Applicant will submit an updated version of the OnSS FRA, including the 75-year assessment, once this modelling report is available, with the earliest anticipated option being Deadline 4. The modelling will be shared with the EA as early as possible, in order that it can be audited by the EA's external consultant, and it is understood that the turnaround time for the consultant's comments will prevent an earlier submission.

1.5Commercial Fisheries and Fishing

Table 1.5: Commercial Fisheries and Fishing

Question ID	Question addressed to	Question	Response
Commercial Fisheries and Fishing			
Q1 CF 1.1	The Applicant	**Assumptions regarding the continuation of fishing activities** ES Chapter 14: Commercial Fisheries [APP-069] has considered that some commercial fishing, primarily potting activities, would be able to take place within the array area during the operational phase of the Proposed Development. Explain whether the conclusions reached in ES Chapter 14 [APP-069] would have been different if for Impact 6 it was assumed that no fishing activities whatsoever could take place within any part of the array area once operational?	The Applicant considers that it is not appropriate or informative for the commercial fisheries impact assessment to consider design scenarios that are unrealistic. On this basis, the assessment has not considered the preclusion of fishing within the operational array area, as there exists no legal basis on which fishing activity could be precluded. Some methods of fishing can be expected to resume in the WTG Area, and this assumption is also reflected in the commercial fisheries impact assessment (APP-069, paragraph 99).

Question ID	Question addressed to	Question	Response
			The Applicant acknowledges that experiences in resumption of fishing within operational UK wind farms vary based on local fishing practices and conditions within the array area. Regionally, and based on anecdotal information gathered by the company FLO, it is understood by the Applicant that fishers are deploying static gear (e.g. pots) within existing operational windfarm array areas. The commercial fisheries impact assessment notes that individual decisions made by the skippers of fishing vessels with their own perception of risk will determine the likelihood of whether their fishing will resume within the array area during the operational phase. The type and dimension of fishing gear also influences the potential opportunities within the array area. For example, the assessment acknowledges that large trawl gears (i.e. demersal trawls, pelagic trawls, purse seine) typically require a greater distance for safe operation and these gears are unlikely to target grounds in the vicinity of infrastructure and this is taken into account in the assessment. The assumptions made in the commercial fisheries impact assessment, as summarised above, are as per those made in equivalent assessments for other fixed foundation offshore wind farms in UK waters.
Q1 CF 1.2	National Federation of Fishermen's Organisations (NFFO)	**Assessment of effects on commercial fishing activities** Do you have any outstanding concerns regarding either the Applicant's assessment of effects on commercial fishing activities or the mitigation measures that the Applicant has proposed?	
Q1 CF 1.3	The Applicant and NFFO	**Configuration of Wind Turbine Generators (WTGs) within the overall array area** In terms of the potential effects on commercial fishing activities during the operational phase of the Proposed Development which of the following would be preferable: A smaller but more closely spaced arrangement of WTGs and other offshore infrastructure that entirely precluded fishing within it but which would take up less of the overall array area, or An arrangement of WTGs that was more spaced out, and therefore increased the possibility of some fishing activities taking place between the offshore infrastructure elements, but would take up a greater proportion of the overall potential array area?	The National Policy Statement (NPS) EN-3, recognises that: *"2.8.74 Owing to the complex nature of offshore wind farm development, many of the details of a proposed scheme may be unknown to the applicant at the time of the application to the Secretary of State. Such aspects may include:* *• the precise location and configuration of turbines and associated development."* and *"2.6.2 Where flexibility is sought in the consent as a result, applicants should, to the best of their knowledge, assess the likely worst-case environmental, social and economic effects of the proposed development to ensure that the impacts of the project as it may be constructed have been properly assessed."* As is typical for offshore wind farms at this stage of the process, the layout of the WTGs is not currently known. The Applicant has set specific layout principles (ES Chapter 3 Project Description APP-058, paragraph 25) which will guide the final design, with various parameters stipulated within the draft Development Consent Order (dDCO) (document 3.1, version 5). For example, minimum spacing between turbines is set as 605 metres from blade tip to the blade tip of the nearest wind turbine generator under requirement 2(1)(d) of the dDCO, and the maximum number of turbines permitted under the Development Consent Order (DCO) is 100, as described in Work No. 1 in Schedule 1 (Authorised project), Part 1 (Authorised development) of the dDCO. These layout principles also allow the realistic worst-case scenario to be developed for the relevant aspect chapters and assessed accordingly. Following further survey and design work, and ongoing consultation

Question ID	Question addressed to	Question	Response
			with stakeholders, a final layout will be proposed by the Applicant for approval by the Marine Management Organisation (MMO), in consultation with relevant stakeholders. This is secured by condition 13(1)(a)(x) of the deemed marine licence (dML)– generation assets forming Schedule 10 of the dDCO which requires a design plan which shows, among other things, the proposed layout of all wind turbine generators (which must be in accordance with the layout principles (defined as those layout principles set out in paragraph 25 of APP-058) and which must accord with the recommendations for layout contained in MGN654 (and its annexes) to be submitted to and approved in writing by the MMO in consultation with Trinity House, the Maritime and Coastguard Agency (MCA), UK Hydrographic Office (UKHO) and the relevant statutory nature conservation body. The maximum design scenario for Chapter 14 Commercial Fisheries (APP-069, Table 14.5), assumes a minimum spacing of 605m between up to 100 WTGS built out within the array area. As noted above, the minimum spacing of the WTGs is secured by Requirement 2(1)(d) of the dDCO. Using 605m as a worst-case scenario, Chapter 14 (APP-069) concludes that no significant effects would occur on any fishing activities from the Project alone. The Applicant considers that it is not appropriate or informative for the commercial fisheries impact assessment to consider design scenarios that are unrealistic. On this basis, the assessment has not considered the preclusion of fishing within the operational array area, as there exists no legal basis on which fishing activity could be precluded. Some methods of fishing can be expected to resume in the WTG Area, and this assumption is also reflected in the commercial fisheries impact assessment (APP-069, para 99). The Applicant acknowledges that experiences in resumption of fishing within operational UK wind farms vary based on local fishing practices and conditions within the array area. Regionally, and based on anecdotal information gathered by the company FLO, it is understood by the Applicant that fishers are deploying static gear (e.g. pots) within existing operational windfarm array areas. The commercial fisheries impact assessment notes that individual decisions made by the skippers of fishing vessels with their own perception of risk will determine the likelihood of whether their fishing will resume within the array area during the operational phase. The type and dimension of fishing gear also influences the potential opportunities within the array area. For example, the assessment acknowledges that large trawl gears (i.e. demersal trawls, pelagic trawls, purse seine) typically require a greater distance for safe operation and these gears are unlikely to target grounds in the vicinity of infrastructure and this is taken into account in the assessment. It is anticipated by the Applicant that stakeholder views in response to the question posed may differ depending on stakeholder preference, which may be informed by a number of factors such as their role in the fishing industry, their method of fishing, their location(s) of fishing, and their previous experience of fishing in operational wind farms.

1.6Compulsory Acquisition, Temporary Possession and Other Land or Rights Considerations

Table 1.6: Compulsory Acquisition, Temporary Possession and Other Land or Rights Considerations

Question ID	Question addressed to	Question	Response
Compulsory Acquisition, Temporary Possession and Other Land or Rights Considerations			
Q1 CA 1.1	The Applicant	**The scope and purpose of the Compulsory Acquisition Powers sought** The Statement of Reasons (SoR) [AS1-032], section 3, considers the source and scope of the powers set out in the dDCO [AS1-024]. Paragraph 3.3.1 explains that these powers include, but are not limited to, the diversion or temporary stopping up of public rights of way (PRoW). The dDCO [AS1-024] Schedule 3 lists five existing PRoWs that would be stopped up pursuant to that article. Please explain in further detail: ▪ The need to seek these powers for these existing rights of way. ▪ What alternatives to this approach in each case have been explored?	**Powers are required to facilitate construction:** ▪ The Applicant reviewed the ECC route and 400kV cable corridor's impact on users of PRoWs as part of the route development and EIA. A summary of the effects of temporary stopping up and the provision of diversions is presented in section 27.8.1.7 of Chapter 27 Onshore Traffic and Transport (AS1-052). Of the 20 PRoW crossed by the Order Limits, six are assessed as resulting in temporary significant effects on users. Three of these are assessed as significant because the length of the provided diversion would be up to 250m long, whilst the remaining three are bridal ways /Byways Open to All Traffic (BOATs) which will have shared used with construction vehicles (measures to separate the public from works will be provided). The Applicant has as far as practicable sought to keep PRoWs open to the public by employing the alternatives set out below. The Applicant has considered the feasibility of keeping all PRoWs open to the public using such measures, and has ascertained that in respect of the five PRoWs specified in Schedule 3, the alternatives outlined below were not feasible for the reasons set out in the table provided. The Applicant therefore needs to seek the powers to stop up and temporarily divert PRoWs specified in Schedule 3. **Alternatives:** ▪ The Applicant's initial approach was to avoid crossing PRoWs by using an alternative route where practicable; however routeing avoiding all PRoWs was not feasible. With regard to each of the five footpaths identified in Schedule 3 to the draft DCO the alternatives considered to seeking powers to temporarily stop up and divert these footpaths were: ▪ keeping the PRoW open with either an unmanned or manned crossing (as set out in the outline Public Access Management Plan (PD1-062); or ▪ extending the length of adjacent trenchless crossings to prevent impact on the PRoW. For the reasons outlined in the table below, it was not considered safe or practicable to have either unmanned or manned crossing points, nor was it considered feasible to have an extended trenchless crossing in respect of the five PRoW listed in Schedule 3 to the draft DCO. In respect of the five PRoW where temporary stopping up and diversion is required, the impacts to PRoW users are localised and temporary as the dPRoW is stopped up and diverted only for the duration of the works to cross the PRoW. The approach taken by the Applicant to the design of PRoW crossings and diversions is as follows.

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1) Where the PRoW crosses a trenchless construction section of the ECC (or 400kV cable corridor), the PRoW is kept open, but managed through signage and gates (an Open Managed Crossing). This is safe as the PRoW user would only have to cross the haul road, across a short distance (approx. 8m from gate to gate), and the ground underfoot would be comprised of stone / aggregate which is safe to walk on.
2) Where the PRoW crosses an open trenched section or cable installation compound of the ECC (or 400kV cable corridor) the PRoW is temporarily stopped up at the safest appropriate point, and a temporary diversions is provided along the edge of the Order Limit to the next safe crossing point. This is because the open trenched sections include a wide are of open construction activity, with the area has potentially been stripped of top soil and includes open excavations could be present.
3) In some areas of the ECC (or 400kV cable corridor) PRoWs may cross the Order Limit where no infrastructure is present (such as trenchless sections without a haul road). In these instances, the PRoW would remain open as usual and no powers are sought for temporary stopping up.

The reasons why temporary stopping up of the five PRoW set out in Schedule 3 are as follows:

PRoW to be temporarily stopped up	Extent of temporary stopping up	Why temporary stopping up is necessary, considerations when selecting a diversion
Public Footpath (Hogs/58/2)	Approximately 193m of the existing Public Footpath, to be closed – temporary diversion, reference Hogs/58/2.	Trenchless techniques will not be feasible in this location due to the approach angle and engineering requirements for a trenchless construction in the next cable section. This PRoW is connected to a neighbouring PRoW which provides a direct crossing (with an open managed crossing (OMC) Hogs/57/1), for public safety. The diversion along the edge of the Order Limits to reconnect to the first footpath minimises interaction with surface activities, for public safety. An Open Managed crossing is not considered feasible in this location because this would result in members of the public crossing a wide part of the working area that has been stripped of top soil and includes open excavations. It is therefore much safer to divert members of the public to an area with no surface excavations, where the only

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						infrastructure that needs to be crossed is the haul road, which will be a much shorter crossing and would be comprised of stone that is much safer underfoot.
				Public Footpath, (Hogs/48/1)	Approximately 109m of the existing Public Footpath, to be closed - temporary diversion, reference Hogs/48/1	This PRoW crosses the Order Limits through a cable installation compound at the end of an already very long trenchless crossing, therefore extending the trenchless crossing to accommodate the PRoW would approach the limit to which trenchless crossings are technically feasible. In this instance it is not feasible to provide an open managed crossing (for the reasons outlined above) so a short diversion (less than 50m) to a section of the ECC that would be constructed using trenchless techniques, without a haul road, has been proposed which would allow PRoW users safe passage across the Order Limits without the need to navigate gates or signage. This approach eliminates interaction between PRoW users and construction activities, to maintain public safety.
				Public Footpath (Crof/276/4)	Approximately 39m of the existing Public Footpath, to be closed- temporary diversion, reference Crof/276/4	This section of the ECC is an open cut section across agricultural land. The sections of ECC east and west of this section are to be constructed using trenchless construction methodology to facilitate the crossing of Church Lane (East) and an IDB Drain (West). The length of trenchless crossing that would be required to cross Church Lane, the PRoW, and the IDB Drain in a single crossing would be too long. Therefore it would not be possible to incorporate this PRoW into an extended trenchless crossing in this location. In this instance it is not feasible to provide an open managed crossing (for the reasons outlined above) so a temporary diversion along the edge of the Order Limit to the west has been proposed. This diversion will direct users of the
				Public Footpath, (Crof/276/3)	Approximately 58m of the existing Public Footpath, to be closed - temporary diversion, reference Crof/276/3	
				Public Footpath, (Crof/276/2)	Approximately 25m of the existing Public Footpath, to be closed - temporary diversion, reference Crof/276/2	

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			PRoW to the trenchless section of the Order limits where the only infrastructure that needs to be crossed is the haul road, which will be a much shorter crossing and would be comprised of stone that is much safer underfoot.
Q1 CA 1.2	The Applicant	**The scope and purpose of the Compulsory Acquisition Powers sought** The SoR [AS1-032], section 6.2, relates to the requirement for the Order land and paragraph 171, states that in identifying the land included in the dDCO [AS1-024], the Applicant has taken every measure to avoid taking unnecessary rights or interests and all reasonable alternatives to compulsory acquisition have been explored. To assist with the consideration of whether the extent of the land to be acquired is no more than is reasonably required for the purposes of the development to which the development consent will relate: ▪ For the avoidance of doubt, please set out and justify the extent of the flexibility that the submitted scheme would allow in terms of limits of deviation and parameters providing dimensions where relevant. ▪ How would it be ensured that powers of Compulsory Acquisition (CA) would not be exercised in respect of land not ultimately required as a result of the detailed design process?	▪ The Applicant has, as is common practice, worked on the basis of a maximum design scenario to calculate the extent of land required for the development. ▪ In terms of Article 3(2) of the draft DCO, each of the scheduled works must be constructed and maintained within the limits of deviation for that work (defined in Article 2 as meaning "the limits for the scheduled works as shown on the works plans"). These limits set out the extent of the Applicant's required flexibility in respect of each works number set out in Schedule 1 (Authorised project), Part 1 (Authorised development). In respect of the infrastructure proposed, the following flexibility has been allowed **Landfall** The Applicant has shown a fan arrangement at landfall to connect the onshore ECC with the offshore ECC. This flexibility is required due to the complex nature of a transitional HDD both in terms of length of drill and depth of drill. Due to these reasons there will be an increased separation between circuits compared to the onshore ECC and offshore ECC. The Applicant will at the detailed design stage endeavour to refine and minimise the impacts as far as reasonably practicable. This approach is common across offshore wind developments. **ECC:** The Applicant has justified the extent of rights required to facilitate the construction of the ECC, being a typical 80m cable corridor as part of the Applicant's Responses to Relevant Representations (PD1-071), RR-067.011 *'Justification for 'working width' during construction'*, which details the corridor's typical width. The Applicant has justified the extent of width required for permanent rights being a typical 60m corridor,(within which the cables will have been laid and any required maintenance can be carried out) as part of the Applicant's Responses to Relevant Representations a (PD1-071) RR-067.012 'Justification for permanent cable rights corridor', which details the corridor's typical width. The Applicant requires flexibility for the cables to be laid anywhere within the width of the Order Limits,and for those cables to be properly maintained and operated thereafter. This enables the Applicant to retain sufficient flexibility to ensure that the cables can be

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			installed in the event of poor ground conditions, unforeseen obstacles, unknown service media, micro siting to minimise impact on field drains, and micro siting to avoid ecological receptors. **OnSS:** The Applicant has justified the extent of the substation land take in Chapter 3, Site Selection and Consideration of Alternatives (APP-059). This is required in order to provide flexibility in the choice of substation technology as the Applicant is considering both AIS and GIS options. The land identified as required for the substation is based on a maximum design scenario using the worst case scenario of the AIS substation option which has a larger footprint than the GIS option. The selection of the technology will be confirmed as part of the detailed design which will be carried out post-consent. **400kV:** The Applicant requires flexibility for the cables to be laid anywhere within the width of the Order Limits, and for those cables to be properly maintained and operated thereafter. This enables the Applicant to retain sufficient flexibility to ensure that the cables can be installed in the event of poor ground conditions, unforeseen obstacles, unknown service media, micro siting to minimise impact on field drains, and micro siting to avoid ecological receptors. **Connection Area:** The Applicant goes into further detail regarding the justification for the extent of the 'Connection area' in the response to Q1 CA 1.29. ▪ In the event that land is found not to be required, compulsory acquisition powers will not be exercised in respect of that land. As is standard in linear schemes, compulsory acquisition powers are sought in respect of the full extent of the order limits to ensure delivery of the Project in the event that ground conditions, obstacles or constraints are encountered which require to be microsited around. The development that consent is being sought for has not yet reached detailed design stage meaning the route and proposed land take is based on a set of parameters contained within a design envelope. This is common for DCO applications of this scale at this stage in the process. The design envelope has been carefully considered in order to minimise the land take as much as possible whilst providing the Applicant with the necessary degree of confidence in the land take required for the infrastructure. The flexibility that has been built into that design envelope is required to ensure that the Project can be delivered. If that flexibility were to be reduced at this stage, before the detailed design stage has been completed, it would create a much more constrained project, and could ultimately risk the ability of the Applicant to implement the Project. Post-

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			consent, once the technical constraints and ground conditions are better understood, the detailed design can be finalised and the Applicant will refine the route layout and minimise land take. The compulsory acquisition powers that are subsequently exercised will be limited to those that are required for the Project following detailed design and any micrositing that may be required. Article 28 (Temporary use of land for carrying out the authorised project) of the draft DCO (document 3.1, version 5) permits the Applicant to use the temporary possession powers contained within that article to construct the Project first, which would then result in the acquisition of any land or rights being limited to the as built locations of the infrastructure associated with the Project. It is the intention of the Applicant to exercise these temporary possession powers under Article 28 during construction and for the permanent rights or freehold acquisition to reflect the as built project. This ensures that the land and rights acquired are no more than is necessary for the Project. This is inherently proportionate. The Applicant is commercially incentivised to limit its land take, as to acquire a larger area than would be required for the cables would result in additional compensation being payable to Affected Persons. The powers of acquisition conferred by Articles 20 and 22 can only be lawfully used for the purpose for which they are granted. Article 20 (Compulsory acquisition of land) provides in paragraph (1) that "The undertaker may acquire compulsorily so much of the Order land as is required for the authorised project or to facilitate, or is incidental to, it" (emphasis added). Article 22 (Compulsory acquisition of rights) also provides in paragraph (1) that "the undertaker may acquire compulsorily such rights or impose restrictive covenants over the Order land as may be required for any purpose for which that land may be acquired under article 20 (compulsory acquisition of land)" (emphasis added). As such, the exercise of the powers to acquire both land and rights in land must be required for the authorised project or to facilitate, or is incidental to, it. In this way, the proposed control to which the ExA's question refers, i.e. only taking land which is required for the project, is already built into the dDCO. In the event that the Applicant sought to utilise the powers for a purpose that did not meet those criteria and was therefore beyond the remit of the powers granted, any third party could challenge the exercise of those powers. The Applicant must exercise the compulsory acquisition powers within the timeframe specified in Article 21 (Time limit for exercise of authority to acquire land compulsorily) of the draft DCO (document 3.1, version 5) therefore there is a limit to the exercise of the powers built into the DCO. However, there is no obligation on the Applicant to proceed with the authorised development and/or use its compulsory acquisition powers. The Applicant intends to have voluntary agreements with landowners in place as far as possible. The terms of the voluntary agreements restrict the Applicant's ability to acquire land or rights in land compulsorily using the powers contained in the DCO, save in respect of any breach of the agreement by the landowner or occupier, or if it is necessary to address third party rights, including those in respect of which the beneficiaries are unknown, or to acquire title to or rights over unregistered title where the owner cannot be identified. For all of the reasons outlined above, the Applicant's position is that there is no need, nor any precedent that the Applicant is aware of in any made DCOs, nor support in policy or

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			guidance, for the inclusion of an additional process or secondary controls for the exercise of compulsory acquisition powers once the DCO is granted.
Q1 CA 1.3	The Applicant	**The scope and purpose of the Compulsory Acquisition Powers sought** The Explanatory Memorandum (EM) [APP-304], paragraphs 7.4 and 7.5, explain that Article 22 allows for rights over land to be acquired as well as the land itself, and also for new rights to be created over land. Paragraph 7.6 explains that this includes the power to impose restrictive covenants. It provides for such rights as may be required to be acquired by the undertaker over land which it is authorised to acquire under Article 20. The public benefit of this is stated to be that it would allow the undertaker to reduce the area of outright acquisition if possible and rely on rights instead: ▪ Please explain further why the area of outright acquisition cannot be more precisely identified at this stage? ▪ How can it be ensured that Article 22 would be utilised in this way and that the Article 20 powers of CA would not be exercised in respect of land that could instead be made the subject of new rights or covenants? ▪ What type of review process and/or control could be put in place to reflect this aim?	▪ The areas of outright acquisition have already been narrowed as far as possible at this stage of the Project. Compulsory acquisition powers are necessarily based on the current level of design, with further detailed design to be finalised post-consent. Requiring a fully and finalised detailed design at the current stage would lead to delay and be inimical to meeting the urgent need for new large scale renewable energy infrastructure, as identified in NPS EN-1 and EN-3. National policy recognises the legitimacy of this approach, which provides the flexibility for detailed design to take place subsequently (e.g. EN-1 paragraph 4.3.18; EN-3 section 2.6). Article 22(2) of the draft DCO (document 3.1, version 5) makes it clear that, in respect of the plots specified in Schedule 7, the undertaker's powers of compulsory acquisition are limited to the acquisition of existing rights over land and the creation and acquisition of such new rights and the imposition of restrictive covenants. As such, the freehold of any plots specified in Schedule 7 could not be acquired compulsorily. Of the 1225 plots within the Order Limits, 784 are included within Schedule 7 of the draft DCO, which demonstrates that the Applicant is not seeking powers to acquire the freehold in the majority of the plots within the Order Limits. The land over which compulsory acquisition powers are sought in respect of the freehold is shaded pink on the Land Plans. This relates to: • The onshore substation, which is located in plot number 45-041; and • Landscaping required to screen the onshore substation, which is located in plots 45-001, 45-005, 45-008, 45-015, 45-021, 45-041, 45- 041b, 45-050, 45-068, 46-002, 46-003, 46-006, 46-008, 46-017, 46-021, 46-033, 46-037, 46-044, 47-005, 47-006a, 47-006b, 47-011, 47-017, 47-026, 47-031, 47-039, 48-002, 48-005, 48-006, 48- 007, 48-012. The reasons why freehold acquisition is considered necessary in respect of these plots is set out in Sections 5.2.1 and 5.2.2 respectively of the Statement of Reasons (document 4.3, version 5). ▪ As noted in response to the first part of this question, the use of the powers to acquire rights conferred by Article 22 are secured in respect of those plots specified in Schedule 7. If, following further design refinement, it was identified that outright acquisition was no longer required in respect of the plots referred to above where freehold acquisition is currently anticipated, as the acquisition of rights and imposition of restrictive covenants were deemed sufficient, Article 22 would permit the undertaker to acquire rights and impose restrictive covenants over these plots instead, thereby reducing the areas required for freehold acquisition if this is appropriate. However, as it stands, the Applicant considers that freehold acquisition is required over the above-mentioned plots. ▪ The Applicant does not consider that a review process or any other control is required to reflect this aim. It is not necessary or proportionate, nor is it

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			supported in policy or guidance, nor is there precedent for it in any made DCO of which the Applicant is aware. The Applicant seeks powers to compulsorily acquire the freehold of the above-mentioned plots. Justification for why this is required is set out in the Statement of Reasons (document 4.3, version 5) in sections 5.2.1 and 5.2.2.
Q1 CA 1.4	The Applicant	**The scope and purpose of the Compulsory Acquisition Powers sought** The SoR [AS1-032], paragraph 125 explains that Article 22 allows rights over land to be acquired instead of outright acquisition. The land in which only new rights may be acquired is specified in Schedule 7 of the dDCO [AS1-024]. Please provide further details as to why it is necessary and reasonable to acquire new rights in the proposed manner over these particular plots of land?	Section 5.3, paragraphs 125-130, of the Statement of Reasons (document 4.3, version 5) provides the detail of what the Applicant is seeking permanent rights for and why they are required. Schedule 7 to the DCO itself explains, on a plot by plot basis, the specific purpose for which each plot or group of plots is required. The Applicant considers it is reasonable and necessary to acquire new rights in the proposed manner over these particular plots of land because the plots are required to enable the Applicant to construct, retain, operate, protect, maintain and decommission the Project, but it is not considered necessary for the Applicant to acquire the freehold in these plots in order to achieve that. The Applicant has therefore sought to use the power conferred by Article 22 to acquire rights and impose restrictive covenants in order to reduce the amount of land that would otherwise need to be acquired outright if such powers were not available to the Applicant. As noted above in response to Q1 CA 1.4, under article 22(2) of the draft DCO (document 3.1, version 5) the undertaker's powers of compulsory acquisition are limited to the acquisition of existing rights over land and the creation and acquisition of such new rights and the imposition of restrictive covenants in respect of those plots set out in Schedule 7. As such, the freehold of any plots specified in Schedule 7 cannot be acquired compulsorily. This aligns with the Compulsory Acquisition Guidance which requires alternatives to be considered and a proportionate approach to be taken (the acquisition of rights being a reasonable alternative to freehold acquisition, and being proportionate to the required outcome). This approach is also in keeping with the voluntary deals being pursued by the Applicant with the relevant Affected Persons, as for all plots specified in Schedule 7, the Applicant is negotiating (or has in place) an option agreement to secure an easement over the land. Further details on the current status of negotiations with all parties with an interest In the Order land can be found in the Compulsory Acquisition and Land Rights Tracker (Schedule of Negotiations & Powers Sought) (document 15.4, version 3).
Q1 CA 1.5	The Applicant	**The scope and purpose of the Compulsory Acquisition Powers sought** Appendix 2 of the SoR [AS1-032] provides a description of the land which is subject to the acquisition of rights or the imposition of restrictive covenants: ▪ Please provide an indication of the anticipated content and/or an initial draft of any restrictive covenants intended to be imposed. ▪ Should a requirement for consultation with relevant owners/occupiers regarding the drafting of any such restrictive covenants be imposed?	▪ The wording proposed for the restrictive covenants in respect of each land plot where only the acquisition of rights and imposition of restrictive covenants is permitted is set out in column 2 of the table in Schedule 7 of the draft DCO (document 3.1, version 5). For each of the plots listed in column 1 of the table in Schedule 7, there is a corresponding part of column 2 which sets out, firstly, the rights that could be sought for that plot, and thereafter the restrictive covenants which could be imposed. ▪ As the drafting of the restrictive covenants is already set out in Schedule 7, and Affected Persons have the opportunity to raise any concerns with the wording of the provisions through their representations to the Examining Authority, it is not considered necessary or proportionate to impose a requirement for consultation with relevant owners/occupiers regarding their drafting.

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Q1 CA 1.6	The Applicant	**The scope and purpose of the Compulsory Acquisition Powers sought** The EM [APP-304], paragraphs 7.18 and 7.19 and paragraph 151 of the SoR [AS1-032], explain that Article 26 and Article 27 respectively allow for the Applicant to choose instead of acquiring the whole of the land pursuant to Articles 20 or 22, to acquire only the subsoil underneath, or airspace over the land. Please indicate the circumstances in which this power might be used, the anticipated locations where this power might be used and the anticipated purposes of any land so acquired?	As set out in paragraphs 7.18 and 7.19 of the Explanatory Memorandum (PD1-027), Article 26 (Acquisition of subsoil or airspace only) gives the Applicant the flexibility to compulsorily acquire or acquire rights in the subsoil of or airspace over land, instead of acquiring the whole of the land or an interest in the whole of the land. This would allow the Applicant to acquire a lesser interest and thereby reduce the impacts on the affected landowner. Some examples of the circumstances in which this power could be exercised include where infrastructure is laid underground or may need to oversail land. For example, where cables and other apparatus are to be laid underground, the Applicant could decide to acquire the rights within the subsoil in order to minimise the amount of land taken, while still ensuring that the cables and other apparatus can lawfully pass through the land and allow rights for the Applicant to access and maintain the equipment. There may be instances where the cables are laid via trenchless techniques at a depth so great that it shall not be practical for the Applicant to seek rights or impose restrictions on the surface and only sub-soil rights will be acquired. This could include locations such as large river crossings like the Haven and River Welland. There may be instances where the cables are laid via trenchless techniques under sensitive environmental receptors or in order to avoid conflict where practicable with existing commercial uses and the Applicant decides that only acquiring rights in the sub-soil is most appropriate in the given circumstances. This could include locations such as The Anderby Marsh Local Nature reserve for environmental receptors or the caravan park at Youngers Lane, Burgh le Marsh. There may be instances where the cables are laid via trenchless techniques and the surface is utilised by a Statutory Undertaker and surface rights could impede with their statutory obligations in which case sub-soil rights only could be sought. This could include locations such as the railway crossing between Thorpe Culvert and Wainfleet. The examples given are indicative only and cannot be relied upon at this stage as definitive locations where these powers would be used. As set out in paragraph 7.20 of the Explanatory Memorandum (PD1–027) Article 27 (Rights under or over streets) empowers the undertaker to use the subsoil under or airspace above any street within Order limits without being required to acquire any part of the street or any easement or right in the street. As set out above, this could apply in relation to infrastructure which is laid beneath the street or any oversail above the street. The Project has not yet been through its detailed design stage, and as such the Applicant is unable to confirm at this stage precisely where apparatus will be placed within the Order Limits as it will be reliant on a number of surveys which will take place post-consent. A decision on whether the Applicant can acquire land or rights in only the subsoil or airspace will depend on the outcome of the detailed design and the land use required for the final positions of the apparatus to be installed. To remove this power from the DCO could create a scenario where the Applicant would be forced to use its powers to acquire the whole of the land or rights in the whole of the land, even if lesser interference would have been possible by using the powers under Article 26.

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Q1 CA 1.7	The Applicant	**The scope and purpose of the Compulsory Acquisition Powers sought** The SoR [AS1-032], paragraphs 155 and 156, alongside EM [APP-304], paragraphs 7.24 and 7.25 indicate that the powers to use land temporarily for maintaining the scheme ensures that the land is available for maintenance works during a five-year period from the date on which the authorised project first exports electricity to the national electricity transmission network, and any period falling between the date at which temporary possession (TP) is no longer permitted under article 28 and the date on which the authorised project first exports electricity to the national electricity transmission network. The definition of this "maintenance period" is given in Article 29(11) of the dDCO [AS1-024]. Please explain further why this is regarded as being a reasonable period within which this power can be exercised and why a shorter period could not be inserted in Article 29(11)?	It is the Applicant's view that a period of five years from first export of power is a reasonable period in which temporary possession powers should be available for use for the maintenance of the Project. This is on the basis that if there were to be any faults or teething problems with any of the Project components, those issues are most likely to arise in the early years of operation, with five years being a best estimate of how long it might take for a problem to be identified, any parts and labour to be procured, the problem fixed and it to be established it has been effective. The inclusion of this power is very common in DCOs for offshore wind (for example, Article 26 of the Sheringham Shoal and and Dudgeon Extensions Offshore Wind Farm Order 2024, article 29 of the Hornsea Four Offshore Wind Farm Order 2023, and Article 28 of the Awel y Môr Offshore Wind Farm Order 2023), and a similar form of Article with a 5 year period to use temporary possession powers for maintenance was included within the original Model Provisions. The power is considered to be proportionate as it would allow access to the Order land for a limited period, further ensuring that the Applicant can keep the land which is acquired or in which permanent rights are acquired to a minimum. The maintenance period in article 29 also aligns with the five-year replanting period set out in Requirement 11(2) which requires the replanting of any landscaping which is removed, dies or becomes, in the opinion of the relevant planning authority, seriously damaged or diseased within a period of five years after planting
Q1 CA 1.8	The Applicant	**The scope and purpose of the Compulsory Acquisition Powers sought** For the avoidance of doubt, please confirm the total number of plots falling within each of Parts 1 to 4 of the Book of Reference (BoR) [PD1-029] and Appendix 2 of the SoR [AS1-032].	The Applicant confirms the total number of plots within the BoR is 1225. The Applicant confirms that Appendix 2 of the SoR submitted at Deadline 2 contains the same number of plots as the BoR.
Q1 CA 1.9	The Applicant	**The scope and purpose of other rights and powers** The SoR [AS1-032] paragraph 5.5.5, explains that in addition to powers of CA, if made, the DCO would also confer other rights and powers on the Applicant that may interfere with property rights and private interests. Article 18 of the dDCO [AS1-024] would authorise the Applicant to enter onto any land within the Order Limits or which may be affected by the authorised development to undertake various survey and investigative works, including trial holes. Article 18(2) provides for a 14 day notice period to be given to the owner/occupier of the land. ▪ What assessment, if any, has been made of the effect upon individual Affected Persons and their private loss that would result from the exercise of CA powers in each case. ▪ If no such assessment has been undertaken, please explain why it is considered unnecessary to do so in this case? ▪ What is the clear evidence that the public benefit would outweigh the private loss and how has that balancing exercise between public benefit and private loss been carried out?	As noted by the ExA, Article 18 (Authority to survey and investigate the land onshore) provides the Applicant with the powers to enter on any land within the Order Limits or any land which may be affected by the authorised project, and survey or investigate that land. Such surveys and other investigations are, by their nature, temporary therefore any access taken by the Applicant under this power would be for a limited period. Article 18(5) requires that once that any surveys and investigations are complete, all equipment must be removed from the land. Article 18(6) provides that compensation will be paid for any loss or damage arising by reason of said surveys and investigations. As such, any loss to the owners and occupiers of the land must be compensated and this is secured in the DCO. As noted in the Statement of Reasons (REP1-014) at paragraph 146, the amount of compensation, if not agreed, would be determined in the same way as compensation for compulsory acquisition. The Statement of Reasons provides an overview of the substantial public benefits of the Project. While the Statement of Reasons does not consider individually the private loss of each affected person, private loss such as crop loss, damage to property, disruption to access and business interruption has been considered throughout the development of the Project proposals and has continued since submission of the application. The Applicant has sought to design a Project which minimises and mitigates private loss as far as is reasonably possible at this stage of the process, and has taken into account feedback and made changes to the proposals in circumstances where Affected Persons have set out how their impacts could be reduced (where this was practicable), as set out in the

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			response to Q1 CA 1.11. However, where private loss is unavoidable, compensation is available, and in respect of any surveys and investigations undertaken by the Applicant under the powers conferred by Article 18, that compensation is secured by the DCO. The Applicant is confident that the public benefit outweighs the private loss for the following reasons: ▪ The interference with an individual's property rights are temporary given the powers relate to surveying and investigating land; ▪ Any loss or damage incurred will be compensated in accordance with Article 18(6) of the draft DCO; ▪ Survey works are essential for assessing the wider impacts of the scheme and to allow for accurate detailed design to be developed, in order to maintain the Applicant's programme, and ensure the timely development of the Project; and ▪ Using the powers under article 18 is the most proportionate way to undertake the surveys in the event that voluntary agreements are not in place, as no land or rights in land are acquired to allow this to take place.
Q1 CA 1.10	The Applicant	**Compulsory Acquisition of the land, rights and powers that are sought by the dDCO** The SoR [AS1-032], section 3, sets out the Applicant's case in the public interest for the proposed CA. Section 3.4 concludes that there is a need for and benefit as a result of the Proposed Development. While this conclusion sets out the benefits delivered by the Proposed Development and its objectives, there is little mention of any consideration given to private loss. Please provide further explanation in relation to the following: ▪ What assessment, if any, has been made of the effect upon individual Affected Persons and their private loss that would result from the exercise of CA powers in each case. ▪ If no such assessment has been undertaken, please explain why it is considered unnecessary to do so in this case? ▪ What is the clear evidence that the public benefit would outweigh the private loss and how has that balancing exercise between public benefit and private loss been carried out?	The Statement of Reasons provides an overview of the substantial public benefits of the Project. While the Statement of Reasons does not consider individually the private loss of each affected person, private loss has been considered throughout the development of the Project proposals and has continued since submission of the application. The Applicant has sought to design a Project which minimises and mitigates private loss such as crop loss, damage to property, disruption to access, business interruption and restrictions on land use as far as is reasonably possible at this stage of the process, and has taken into account feedback and made changes to the proposals in circumstances where Affected Persons have set out how their impacts could be reduced (where this was practicable), as set out in the response to Q1 CA 1.11. The Applicant has also sought to identify and mitigate effects on land use though a) the design of the ECC, and b) significant consultation with land interests, the public and other stakeholders. For example: ▪ When undertaking route identification and selection, the Applicant followed the principles of the mitigation hierarchy, which prioritises avoidance as the primary means of mitigation. To that end, the Applicant aimed to reduce the length of the ECC, as far as reasonably possible whilst taking into account the potential effects on other sensitive receptors, to reduce the Project's overall footprint, and thus effects on land use. Following consultation with land interests, the public and other stakeholders , the Applicant received numerous requests from landowners and the public to consider re-routing the ECC to the north of the A52. Following technical review of the request, this was found to be feasible and the route of the ECC was changed to accommodate this request as explained in Chapter 4 Site Selection and Consideration of Alternatives (APP-059) at section 9.3. However, where private loss is unavoidable, compensation is available to affected persons in line with the Compensation Code, which is considered in more

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			detail in the response to Q1 CA 1.12 below. The Applicant has also included a bespoke mechanism by which occupiers who would not be entitled to claim under the Compensation Code can be appropriately compensated. Further detail on this is also set out in response to Q1 CA 1.12. It should be noted that the Applicant has worked and continues to work closely with Affected Persons, their land agents and their legal advisors to determine fair and reasonable compensation for the rights being sought by way of voluntary land agreements. This involves compensation based on the type of land being affected. As a result, the Applicant has successfully agreed in principle HoTs with 94% of landowners for landfall and the Onshore ECC (representing 93.66% of the length of the Onshore ECC). Additionally, the Applicant has successfully agreed Option Agreements with 67% of landowners for landfall and the Onshore ECC (representing 77.42% of the length of the Onshore ECC). The Applicant is proceeding to exchange Option Agreements where possible, with 17 Option Agreements being exchanged to date. The Applicant is continuing positive engagement and constructive commercial negotiations are ongoing with all remaining affected landowners and occupiers. The public benefits of the Project are substantial as summarised in the SoR [REP1-014]: ▪ the urgent need for the Project as established by international climate change obligations (Section 3.1 of the Statement of Reasons), UK climate change and renewable energy policy and legislation (Section 3.21 of the Statement of Reasons) and national policy (Section 3.3 of the Statement of Reasons); ▪ the substantial contribution the Project would make to the achievement of the UK's national renewable energy targets, and to the UK's contribution to global efforts to reduce the effects of climate change; ▪ the role the Project would play in the British Energy Security Strategy ambition to reach 50GW of offshore wind by 2030, as well as wider UK Government targets to achieve net zero carbon emissions by 2050; ▪ the opportunities the Project would provide for economic growth at national and local levels, both during construction and throughout its operational life; and ▪ the significant investment as a result of the Project in the offshore wind sector, which would contribute to a growing, skilled workforce and strength existing manufacturing industries. It is considered that, on balance, the scale and number of these benefits outweighs any private loss, having regard to the fact that such losses have been mitigated and minimised and will be compensatable such that Affected Persons will, as far as possible, be placed in a position equivalent to that which they would have been had the compulsory purchase of their land or rights in their land not occurred.
Q1 CA 1.11	The Applicant	**Whether there is a compelling case in the public interest for the Compulsory Acquisition of the land, rights and powers that are sought by the dDCO** The SoR [AS1-032], section 6.4, outlines the steps the Applicant has taken to acquire land by negotiation and the status of those negotiations is set out at Appendix 4 to the SoR. Please provide further details, with examples where available:	It should be noted that Appendix 4 of the Statement of Reasons has been superseded by the Compulsory Acquisition and Land Rights Tracker [PD1-072]. The Applicant has carried out a number of rounds of consultation which has shaped the proposals. This is set out in detail, including with examples, in the Applicant's consultation report [AS1-034] Table 1.2.

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		▪ Whether such engagement has helped to shape the proposals and enabled the Applicant to make changes to designs, including the extent of land-take, to minimise the private loss. ▪ Please provide detail, where available, of any direct and indirect impacts thereby identified.	Further engagement during the negotiation of Heads of Terms has also led to some further reductions to the Order Limits and reductions in the compulsory acquisition powers being sought which include the following: ▪ Plot 46-048 removal of the enabling access. Following consultation with the Affected Parties, The Applicant was made aware of an alternative access already within the same ownership and within the order limits meaning this enabling access was no longer required. ▪ Plots 46-037, 46-044 and 46-045 - Due to the Affected Persons requiring vehicular access to maintain the drain, the Applicant has reduced the landscaping works over this area. ▪ Plots 35-005 to 35-008 – Following Consultation with the Affected Parties, the Applicant was made aware of a conflicting land use held under lease by another DCO project. The Applicant has removed these plots due to this conflict and suitable access was available within the order limits. ▪ Rights of access being sought to the substation have been reduced from freehold acquisition to a permanent right following the Affected Persons wanting to maintain access to their wider land holding which would be impacted should the Applicant wish to take the freehold ▪ Near to landfall, rights have been reduced from freehold to permanent right for access over the bell mouth to be constructed as part of Work No. 20 (as shown on sheet [1] of the Works Plans (PD1-004). Following further consultation, the Affected Persons wanted to retain access to their land holding.
Q1 CA 1.12	The Applicant	**Whether there is a compelling case in the public interest for the Compulsory Acquisition of the land, rights and powers that are sought by the dDCO** What weight has the Applicant attached to the compensation that would be available to those entitled to claim it under the relevant provisions of the national Compensation Code in its assessment of private loss?	The Applicant has attached appropriate weight to the compensation that would be available to those entitled to claim it under the relevant provisions of the national Compensation Code in its assessment of private loss. The Applicant has considered that, under the provisions of the Compensation Code, any Affected Persons will be fairly compensated in line with the principle of equivalence (i.e. that Affected Persons are, as far as possible, to be placed in a position equivalent to that which they would have been had the compulsory purchase of their land or rights in their land not occurred). This is reflected in the Property Cost Estimate [APP-030] and has been taken into account in the Compulsory Acquisition Funding Statement [REP1-012]. Due to the nature of farming practices in this part of Lincolnshire, which typically result in persons occupying the land without any formal tenancy in place, there are occupiers farming the land within the Order Limits who would not generally be entitled to claim compensation under the Compensation Code. In order to address this, the Applicant has actively sought to ensure those parties can be compensated and has voluntarily negotiated a mechanism to provide appropriate compensation with Affected Persons as part of its voluntary land agreement negotiations in the form of an Occupiers Consent. [This comprises a direct agreement between the Applicant and occupiers so that occupiers can claim compensation for crop loss, including the cost of mitigation measures, and for damage caused by works.

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Q1 CA 1.13	The Applicant	**Whether there is a compelling case in the public interest for the Compulsory Acquisition of the land, rights and powers that are sought by the dDCO:** Section 4.1.2 of the Cable and Grid Connection Statement [AS1-106] sets out the maximum onshore cable corridor (OCC) assessment assumptions. This indicates that the typical temporary construction corridor width would be 80 meters (m), within which a typical 60m wide permanent corridor would be located. The Applicant notes that the maximum extent of the cable corridor temporary footprint would be up to 220m, at the River Haven Crossing and that the width of the cable corridor could fluctuate along its route to account for specific environmental and engineering constraints. Provide: ▪ A list of all such locations where the width of the cable corridor could be reduced; ▪ The justification at each location for maintaining the width of the onshore cable corridor at 80m in the application documents; and ▪ Where this is due to uncertainties in design and / or ground conditions how this is accounted for in considering the impact on Affected Persons, their interests and the balancing exercise between public benefit and private loss.	The onshore ECC has been designed to ensure delivery of the Project taking proper account of the potential for ground conditions, obstacles or constraints to be encountered which require to be microsited around. Failure to make proper allowance for such matters would put the delivery of this urgently needed Project at risk. The development that consent is being sought for has not yet reached detailed design stage meaning the route and proposed land take is based on a set of parameters contained within a design envelope. This is common for DCO applications for developments of this type and scale at this stage in the process. The 80 metre working width is a typical width assigned along the route (save where wider locations are shown on the Order Limits to accommodate trenchless crossings) to provide the flexibility required to route the onshore ECC in the event that potential constraints noted above arise. As such, there are currently no locations where the onshore ECC width could be reduced as the Order Limits have already been refined as much as is reasonably possible at this stage. However, as noted in response to Q1 CA 1.2, post-consent, once the technical constraints and ground conditions are better understood, the detailed design can be finalised and the Applicant will refine the route layout and thereby reduce the actual land take to the minimum required. It is anticipated that the width of the permanent infrastructure will typically be 60 metres across the onshore ECC (except at locations where trenchless crossings have been undertaken), but this will be confirmed as part of the detailed design stage. Across the onshore ECC, the flexibility that has been built into the design envelope for that component of the Project is required to ensure that the Project can be delivered. If that flexibility were to be reduced at this stage, before the detailed design stage has been completed, it would create a much more constrained project, and could ultimately risk the ability of the Applicant to implement the Project. The impact of the proposed powers on Affected Persons has been appropriately taken into account. The Applicant has sought to design a Project which minimises private loss as far as is reasonably possible at this stage of the process, and has taken into account feedback from Affected Persons as to how the impacts on them could be reduced and where appropriate and practical has made changes to the proposals in response to such feedback have set out. This is set out in more detail the response to Q1 CA 1.11. However, where private loss is unavoidable, compensation is available to affected persons in line with the Compensation Code, which is considered in more detail in the response to Q1 CA 1.12 above. The Applicant has also created a mechanism by which occupiers who would not be entitled to claim under the Compensation Code can be appropriately compensated. Further detail on this is also set out in response to Q1 CA 1.12.
Q1 CA 1.14	The Applicant TH Clements & Son Ltd National Grid Electricity Transmission PLC St John's College Cambridge Julie Ann Mason	**Whether all reasonable alternatives to Compulsory Acquisition have been explored** The Planning Act 2008 guidance related to procedures for the compulsory acquisition of land (CA Guidance), paragraph 25, states that applicants should seek to acquire land by negotiation wherever practicable. As a general rule, authority to acquire land compulsorily should only be sought as part of an order granting development consent if attempts to acquire by agreement fail. ▪ Has the Applicant complied with this aspect of the CA Guidance? If not, then set out your reasoning.	The Applicant has complied with paragraph 25 of the CA Guidance. The Applicant has sought to acquire land or rights in land through negotiation wherever practicable. In doing so the Applicant has sought to negotiate with all affected persons with an interest in the Order land The Applicant's correspondence with affected parties is outlined in the Applicant's Compulsory Acquisition and Land Rights Tracker (Document 15.4, version 3). This is reflected in the fact that the Applicant has successfully agreed HoTs with 94% of landowners for landfall and the Onshore ECC (representing 93.66% of the length of the Onshore ECC). Additionally, the Applicant has successfully agreed Option Agreements

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		▪ Has the Applicant offered full access to alternative dispute resolution techniques for those with concerns about the CA of their land or considered other means of involving those affected? Any other Affected Parties not directly addressed by this question should feel free (but are not obliged) to contribute a response to this question.	with 67% of landowners for landfall and the Onshore ECC (representing 77.42% of the length of the Onshore ECC). The Applicant is proceeding to exchange Option Agreements where possible with 17 Option Agreements being exchanged to date. The Applicant is continuing positive engagement and constructive commercial negotiations are ongoing with all remaining affected landowners and occupiers, except for with St John's College Cambridge who, as set out in the Compulsory Acquisition and Land Rights Tracker (Document 15.4, version 3), has withdrawn from negotiations as they intend to sell their property. Please see the Compulsory Acquisition and Land Rights Tracker (Document 15.4 version 3) for the latest updates on negotiations. The Applicant is in active negotiations with the Affected Persons and therefore it has not been necessary to offer alternative dispute resolution at this stage. Should issues emerge that cannot be resolved the Applicant will suggest the use of alternative dispute resolution or will consider entering into alternative dispute resolution if this is requested by any landowner.
Q1 CA 1.15	The Applicant	**Whether all reasonable alternatives to Compulsory Acquisition have been explored** With reference to the CA Guidance, paragraph 8: ▪ • How can the ExA be assured that all reasonable alternatives to CA (including modifications to the scheme) have been explored? ▪ Set out in summary form, with document references where appropriate, what assessment/comparison has been made of the alternatives to the proposed acquisition of land or interests therein in each case.	All reasonable alternatives to compulsory acquisition have been explored, including modifications to the scheme following consultation events, stakeholder responses, and negotiations with landowners and occupiers. Modifications have been made to the scheme both pre and post-submission of the application for development consent, the effect of which is the adoption of an alternative route for part of the onshore ECC and a number of reductions to the Order Limits. These modifications have been made to take account of and respond to landowner feedback. The modifications have also resulted in rights being sought rather than freehold acquisition, as set out in response to question CA 1.11. The evidence of specific alternatives being considered and adopted as a result of landowner feedback needs to be considered alongside the detailed and iterative refinement of requirements undertaken in respect of the project as a whole, as set out in Chapter 4 Site Selection and Consideration of Alternatives(APP-059) . In respect of plots within the Order Limits where the Applicant considers it could construct, retain, operate, protect, maintain and decommission the Project by seeking rights and imposing restrictive covenants rather than acquiring the freehold, the Applicant has included these plots in Schedule 7 of the draft DCO (document 3.1, version 5) and is seeking to acquire rights over these plots as an alternative to acquiring the freehold using compulsory acquisition powers. As noted above in response to Q1 CA 1.4, under article 22(2) of the draft DCO (document 3.1, version 5) the undertaker's powers of compulsory acquisition are limited to the acquisition of existing rights over land and the creation and acquisition of such new rights and the imposition of restrictive covenants in respect of those plots set out in Schedule 7. As such, the freehold of any plots specified in Schedule 7 cannot be acquired compulsorily. The draft DCO (document 3.1, version 5) also includes, under Article 28 (Temporary use of land for carrying out the authorised project), powers that would allow the Applicant to undertake works and gain access to the onshore Order Limits. The land would not be permanently impacted nor would permanent rights be required.

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			The refinement of the powers sought in these ways reflects a proactive and detailed consideration by the Applicant of how the nature and extent of the compulsory powers can be refined to minimise the need for compulsory acquisition of land. The Applicant is seeking voluntary land agreements with as many landowners and persons with an interest in the land within the Order Limits as possible. As set out in response to Q1 CA 1.14, the Applicant has successfully agreed HoTs with 94% of landowners for landfall and the Onshore ECC (representing 93.66% of the length of the Onshore ECC). Additionally, the Applicant has successfully agreed Option Agreements with 67% of landowners for landfall and the Onshore ECC (representing 77.42% of the length of the Onshore ECC). The Applicant is proceeding to exchange Option Agreements where possible with 17 Option Agreements being exchanged to date. The Applicant is continuing positive engagement and constructive commercial negotiations are ongoing with all remaining affected landowners and occupiers. Further details on the current status of negotiations with all parties with an interest In the Order land can be found in the Compulsory Acquisition and Land Rights Tracker (Schedule of Negotiations & Powers Sought) (document 15.4, version 3). As set out in response to Q1 CA 1.2, the terms of the voluntary agreements restrict the Applicant's ability to acquire land or rights in land compulsorily using the powers contained in the DCO, save in respect of (a) any breach of the agreement by the landowner or occupier, or (b) if it is necessary to address third party rights, including those in respect of which the beneficiaries are unknown, or (c) to acquire title to or rights over unregistered title where the owner cannot be identified.
Q1 CA 1.16	The Applicant	**Whether all reasonable alternatives to Compulsory Acquisition have been explored** The SoR [AS1-032], section 6.4, refers to the non-statutory consultation, between January and February 2018, and the statutory consultation in summer 2021, and the selection of the preferred route and subsequent design changes. ▪ Please explain what, if any, account has been taken of responses to pre-application consultation (both in relation to statutory and non-statutory consultation) in the location, route, and design of the scheme in considering whether there are reasonable alternatives to CA. ▪ Please provide further details of the examples given in section 6.4 and the Consultation Report [APP-032], highlighting the instances of location/route changes and changes to design development options which resulted in reduced land-take within the application scheme in response to public consultation.	Please see the Applicant's response to Q1 CA 1.11, noting that the non-statutory consultation period was conducted in November 2022 and February - March 2023 and the statutory consultation was conducted in June – July 2023 and in October – November 2023. Further targeted statutory consultation was held in December 2023 – January 2024.
Q1 CA 1.17	The Applicant	**Whether adequate funding is likely to be available** Please summarise the evidence relied upon to support the conclusion that there is a reasonable prospect that the scheme, if granted consent, would actually be taken forward and in what time period?	As stated in paragraph 17 of the Compulsory Acquisition Funding Statement (document 4.2, version 3) "financing for the Project … is anticipated to be via a mixture of funding from the Applicant's parent companies combined with project financing and/or equity investment from external investors, secured against the revenue streams of the completed Project." This is evidenced by each of the parent company's groups' track record of developing, delivering and investing in offshore wind projects together with the details and calibre of the parent company accounts in Appendices 2-4 of the Compulsory Acquisition Funding Statement [REP1-012]. The proposed mechanism for funding is by far

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			the most commonly used approach that has been successfully deployed for the existing portfolio of similar sized offshore wind projects in the UK. Furthermore, the ambitions and targets of the shareholders to significantly expand their renewables portfolios to make significant contributions to UK Government 2030 targets is widely confirmed and reported in their annual reports, for example paragraph 15 of the Statement of Reasons [REP1-014] states "TotalEnergies will continue to expand this business to reach 35GW of gross production capacity from renewable sources by 2025, and then 100GW by 2030 with the objective of being among the world's top 5 in renewable energies" and paragraph 14 states "Corio's 15GW pipeline is one of the largest in the world, spanning established and emerging markets, as well as floating and traditional fixed-bottom technologies. These next generation offshore wind projects will help form the backbone of the net-zero global energy system while meeting the energy needs of communities and corporate off takers sustainably, reliably, safely and responsibly." Subject to obtaining the necessary consents, financing and procurement activities, the project will be taken forward with a construction programme of approximately 2027 to 2030 aligned with the grid connection agreement secured at Weston Marsh for full power to be achieved by the end of 2030.
Q1 CA 1.18	The Applicant	**Whether adequate funding is likely to be available** The Funding Statement [REP1-012], indicates that the scheme has a most-likely estimate of between £5.5 and £7.5 billion to cover all costs of construction, operation, development, project management, financing and land acquisition. This estimate includes an allowance for compensation payments relating to the CA of land interests in, and rights over, land and the TP and use of land. It also takes into account potential claims under Part 1 of the Land Compensation Act 1973, Section 10 of the Compulsory Purchase Act 1965 and Section 152(3) of the Planning Act 2008. ▪ How can the ExA be satisfied as to the reliability of that estimated figure, and what is its degree of accuracy? ▪ How does the Applicant account for the £2 billion range between the lower and upper cost estimates? ▪ Whilst the Funding Statement indicates that the costs of meeting any valid blight claim will be met by the Applicant, please confirm that the resource implications of a possible acquisition resulting from a blight notice have been adequately taken account of in the overall cost estimate. ▪ The ownership structure declared for TotalEnergies Holdings Europe in the Funding Statement is indicated as comprising of three separate 'parent' entities. However, the share of ownership indicated as being held by each of these entities does not account for 100% of the ownership of TotalEnergies Holdings Europe. Why is the full ownership of this company not shown in the Funding Statement and how does this apparent shortfall affect the funding available for the Proposed Development?	The Applicant has used existing benchmarks, obtained from Corio Generation and TotalEnergies, for asset and operations prices based on prior projects which are commercially confidential. For a project of this type and stage in development, the Applicant has determined it is appropriate to use the class 4 cost estimate methodology from the Association for the Advancement of Cost Engineering (AACE) which has a cost estimate accuracy range of -30% to +50%. The range in the cost estimate reflects the early stage of maturity of the project and the current upward pressures in the supply chain and the time period elapsing between the point of executing contracts and their subsequent delivery (some contracts may be subject to price escalation during their tenure). Furthermore, markets for goods and services are currently highly volatile so prices can vary from project to project. These factors account for the range between the lower and upper cost estimates. The Applicant has included a provision in Appendix 5 Property Cost Estimate (APP-030) for Blight as set out in row number 6 in the table within the Conclusion. It should be noted the Applicant is not aware of any persons who would currently meet the statutory requirements for a Blight Notice. The Applicant can confirm that the discrepancy in the percentages of ownership shown in the structure chart in the Compulsory Acquisition Funding Statement [REP1-014] arose from a difference in the "rounding" of the percentage ownership among the three shareholders. Accordingly, the figure showing the 16.892% ownership between ELF Exploration Production (409 160 017 RCS Nanterre) and TotalEnergies Holdings Europe (428 292 197 RCS Nanterre) should be corrected to 16.90%. The Applicant has provided updated Funding Statements (V3) at Deadline 2 which, following correction of this

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			rounding error, includes a structure chart which shows the shares of ownership do total 100%.
Q1 CA 1.19	The Applicant	**Funding Statement** Noting paragraphs 16, 23 and 24 of the Funding Statement [REP1-012], confirm whether the Applicant has been made aware since its submission of: ▪ Any persons who meet the statutory requirements for a Blight Notice; ▪ Any parties intending to serve a Blight Notice; or ▪ Any attempts to sell any of the affected land or property that have resulted in it only being able to be disposed of at a significantly lower price than it would have been expected to sell.	Since the submission of the Application: ▪ The Applicant has not been made aware of any persons who currently meet the statutory requirements for a Blight Notice. ▪ Julie Ann Mason, the owner of plots 09-013 and 09-014, has suggested they intend to serve a blight notice should negotiations fail as referenced in the letter from Wilsons to David Wright on 3rd May 2024 as set out in REP1-051. ▪ The Applicant is not aware of attempts to sell any of the affected land or property which have resulted in it only being able to be disposed of at a significantly lower price than it would have been expected to sell.
Q1 CA 1.20	The Applicant	**Whether the purposes of the proposed Compulsory Acquisition justify interfering with the human rights of those with an interest in the land affected** What degree of importance has been attributed to the existing uses of the land proposed to be acquired in assessing whether any interference would be justified, and why?	In forming the view that there is a compelling case in the public interest for the authorisation of compulsory acquisition powers, the Applicant has had regard to the existing uses of the land proposed to be subject to the compulsory acquisition powers in the overall balance between the public interest and interference with individuals' rights. In particular, the Applicant has taken into consideration that: ▪ There are no residential properties (including the curtilage of any properties) proposed to be acquired; ▪ Although agricultural land is being acquired no farms or businesses are being displaced or extinguished; ▪ No other types of business are being displaced or extinguished; ▪ The impacts on agricultural operations during construction will be temporary and limited, with construction works being undertaken and reinstated in phases following installation of ducts (as set out in the Outline Code of Construction Practice, paragraph 74 (PD1-038)) and normal agricultural operations being able to resume post-reinstatement of the land over the Order Limits (with the exception of the land used for the OnSS and the landscaping for screening the OnSS); ▪ Landscaping required to screen the OnSS has been designed to align with existing rural roads and field boundaries to ensure that farm fields are largely kept complete and not divided by new planting; ▪ The mitigation measures set out in the Outline Code of Construction Practice (PD1-038) and the Outline Soil Management Plan (PD1-040) will reduce the impact of the Project on land retained by landowners and ensure that land is reinstated in a way that allows normal agricultural operations to resume;. The potential interference with existing land uses has been weighed against the public interest. The Planning Statement (APP-297) and Section 3 of the Statement of Reasons (document 4.3, version 5) demonstrate the need for the Project and the significant benefits which are in the public interest. NPS EN-1 (paragraph 3.2.6) provides that all applications seeking development consent for energy NSIPs should be assessed by the Secretary of State on the basis there is a demonstrated need for those types of infrastructure and that the scale and urgency of that need is as described in NPS EN-1 (Section 3.2). Furthermore, the Secretary of State

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			has determined that substantial weight should be given to this need when considering applications for development consent under the Planning Act 2008 (NPS EN-1, paragraph 3.2.7). In this policy context, the Project would make a substantial contribution towards the delivery of renewable energy in line with the need to significantly decarbonise the power sector by 2030 and should therefore be ascribed substantial weight in the balance of considerations and the presumption in favour of such developments. The need for the Project is therefore established. The UK Government has concluded (at paragraph 4.2.4 of NPS EN-1) that there is a critical national priority (CNP) for the provision of nationally significant low carbon infrastructure, and paragraph 4.2.5 of NPS EN-1 confirms that low carbon infrastructure includes offshore generation that does not involve fossil fuel combustion. Paragraph 4.2.7explains that the substantial weight which should be given to this need in assessing applications, as set out in paragraphs 3.2.6 to 3.2.8 of EN-1, is the starting point for all assessments of energy infrastructure applications. There is a presumption that the CNP outweighs non-HRA or non-MCZ residual impacts after the mitigation hierarchy has been applied, and that the Secretary of State must treat such infrastructure as if it has met any tests which are set out within the NPSs, or any other planning policy, which requires a clear outweighing of harm, exceptionality or very special circumstances. The Applicant considers that the significant public benefits outweigh the interference with the rights of those with interest on the Order Land (NPS EN-1 paragraphs 4.2.15-4.2.16). The Applicant considers that residual impacts upon Affected Persons are compensatable under the Compulsory Purchase Compensation Code. Landowners whose land is compulsorily acquired, or over whose land rights are compulsorily acquired, are entitled to compensation under the Compensation Code. A first principle of the Compensation Code is the principle of equivalence - that landowners are, as far as possible, to be placed in a position equivalent to that which they would have been had the compulsory purchase of their land not occurred.
Q1 CA 1.21	The Applicant	**Whether the purposes of the proposed Compulsory Acquisition justify interfering with the human rights of those with an interest in the land affected** The SoR [AS1-032], paragraph 6.7 refers to both Article 1 of the First Protocol and Article 8 of the European Convention on Human Rights in the context of the exercise powers of CA sought through the dDCO. For the avoidance of doubt: ▪ Please identify all those properties where it is anticipated that Article 8 rights may be a relevant consideration and indicate whether any agreement has been reached with those owners/occupiers affected in this way? ▪ Please explain separately for each property the necessity and justification for seeking the application of CA or TP powers and how that would comply with Article 8?	The Compulsory Acquisition Guidance provides at paragraph 10 that "*The Secretary of State must ultimately be persuaded that the purposes for which an order authorises the compulsory acquisition of land are legitimate and are sufficient to justify interfering with the human rights of those with an interest in the land affected. In particular, regard must be given to the provisions of Article 1 of the First Protocol to the European Convention on Human Rights and, in the case of acquisition of a dwelling, Article 8 of the Convention*." The Applicant confirms that it is not seeking compulsory acquisition powers over any dwelling, or the curtilage of any dwelling, therefore there are no properties where it is anticipated that Article 8 rights may be a relevant consideration.
Q1 CA 1.22	The Applicant	**Whether the purposes of the proposed Compulsory Acquisition justify interfering with the human rights of those with an interest in the land affected** The SoR [AS1-032], paragraph 6.2, states that the Applicant considers that the quantity of land identified for acquisition is proportionate and necessary.	▪ Please see the response to Q1 CA 1.20 which sets out factors which have been placed in the balance (including references to paragraphs of NPS EN-1, the weight attributed to those factors and how this exercise has been undertaken).

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		• Please explain more precisely the factors which have been placed in the balance (including references to any paragraphs of the relevant NPS and Government Guidance), the weight attributed to those factors and how this exercise has actually been undertaken? • How has the proportionality test been undertaken? • Explain further the proportionate approach which has been taken in relation to each plot?	▪ The Applicant considers the compulsory acquisition powers sought to achieve the aim of delivering a Nationally Significant Infrastructure Project which will contribute to addressing an identified Critical National Priority for low carbon infrastructure, and contribute to net zero targets, meet the proportionality test. The test requires a fair balance to be struck between the public interest and interference with the rights of individuals. The response to Q1 CA 1.20 sets out an overview of the balancing exercise that was undertaken. To summarise, the extent of the Order Land is no more than is reasonably necessary for the construction, operation, maintenance or decommissioning of the Project and therefore, the Applicant considers the land identified is proportionate and necessary. Compensation is available to Affected Persons. The Applicant has avoided taking unnecessary rights or interests and all reasonable alternatives to compulsory acquisition have been explored, including modifications to the scheme following consultation events, stakeholder responses, and negotiations with landowners and occupiers. ▪ Across the Order Limits, the Applicant has sought to minimise interference as much as possible while still retaining the rights required to deliver the Project. As set out in response to Q1 CA 1.11, a number of modifications have been made to the Order Limits as a result of feedback received from landowners that the proposed order Limits would have impacted their land use or planned future land use in some way. The Applicant, as further design refinement has been undertaken, has also reviewed the Order Limits and removed plots that were no longer considered as necessary for the construction, operation, maintenance or decommissioning of the Project. The need and proposed use for each plot is set out in the Statement of Reasons (REP1-014/document 4.3, version 5) at Appendix 2. Further detail is also provided in respect of the plots required for each type of infrastructure in Section 5.2 (Acquisition of Freehold) and 5.3 (Acquisition of new rights and imposition of restrictions) of the Statement of Reasons.
Q1 CA 1.23	The Applicant	**The accuracy of the Book of Reference, Land Plans and points of clarification** Please confirm that the BoR [PD1-029] accurately sets out the various plots and interests. Please summarise any inaccuracies that have come to light since the submission of the application and the steps taken to address these inaccuracies. In addition, indicate any further updates that need to be made at this stage.	The Applicant confirms that the BoR (document 4.1, version 6) accurately sets out the plots within the Order Limits (as shown on the Land Plans (document 2.5, version 5)) and the interests associated with those plots at the time of submission. The BoR will be updated and issued in line with the deadlines set out within the examination timetable to reflect any changes in ownership or occupancy at that point in time. With regard to amendments that have been made to the BoR since submission, please see the Schedule of Changes to the Book of Reference [document 4.1.1, version 5] which has any changes made with an explanation as to why that change has been made and captures where there have been any inaccuracies identified.
Q1 CA 1.24	The Applicant	**The accuracy of the Book of Reference, Land Plans and points of clarification** The SoR [AS1-032], paragraph 6.2.1, states that diligent inquiry to identify all persons with an interest in land and diligent inquiry to identify affected landowners and occupiers, those with another type of interest in land and those	The Applicant is confident that the BoR is accurate and can be relied upon as per the land referencing methodology and the information that has been provided to the Applicant following diligent enquiries. The information submitted is up to date with the information available at that point in time.

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		with a potential claim, was undertaken by the Applicant's expert land referencing supplier and an overview of this process is provided in section 6.4. ▪ Please comment on the reliability and accuracy of the BoR in the light of those inquiries. ▪ Please provide further details of the process for identifying Category 3 persons.	The process of identifying Category 3 persons involved a detailed assessment of potential persons who may be entitled to compensation as a result of the implementation of the DCO, being those parties who may not have a legal interest in the Order land, but who had the potential to be affected by the implementation of the DCO. The Applicant has identified Category 3 persons, as defined by S57(4) of the Planning Act 2008, by conducting a comprehensive impact assessment which included a detailed evaluation of environmental impacts to identify potential effects of the project on surrounding properties and businesses. These assessments carefully considered any potential loss or damage that could give rise to a compensation claim under the compensation code. The predominant factor assessed was noise, which was the most far-reaching impact. The noise buffer used was for unmitigated noise levels and any properties falling within the levels which exceeded the relevant construction thresholds during the daytime, and where applicable, during the evening, weekend and night-time periods were identified as a Category 3 interest. The construction noise threshold limits were determined with reference to the baseline sounds levels and the ABC method contained in BS5228-1:2009+A1:2014.
Q1 CA 1.25	The Applicant	**The accuracy of the Book of Reference, Land Plans and points of clarification** What assurance and evidence can the Applicant provide of the accuracy of the land interests identified as submitted and indicate whether there are likely to be any changes to the land interests, including the identification of further owners/interests or monitoring and update of changes in interests?	Please refer to the Applicant's Land Refencing Methodology found in Appendix 3 of the Statement of Reasons (document 4.3, version 5 which sets out how the Applicant has identified Categories 1-3 interests and ensures the BoR at the time of submission is accurate and correct. The Applicant's land agent and their land referencing team have also conducted Land Interest Questionnaires as well as the Applicant's legal advisors who have carried out diligent enquiries before exchanging final documentation. The Applicant will be carrying out HMLR refreshes ahead of Deadlines 3 and 6 to ensure that the BoR remains as up to date as possible. Additionally, the Applicant remains in contact with the landowners, land agents, and solicitors who have to date been proactively communicating any changes to the interest in the Order land, and the Applicant will ensure any changes it is notified of are reflected within the BoR.
Q1 CA 1.26	The Applicant	**The accuracy of the Book of Reference, Land Plans and points of clarification** The SoR [AS1-032] Section 6.5 identifies that there are a number of parcels of land in unknown ownership. Please confirm that the BoR [PD1-029] represents an up to date list of those plots of land where ownership still remains unknown and indicate whether, and if so what, further steps are intended to be carried out to ascertain the ownership of these unregistered parcels of land?	The Applicant can confirm that the parcels in the BoR showing unknown ownership are accurate and up to date as of 25th September 2024, being the date that the Applicant undertook the most recent HMLR refresh. The Applicant has carried out extensive research into the ownership of these plots which includes an initial site noticing and door knocking campaign, as well as site noticing as part of the pre-application consultation undertaken under section 42 of the Planning Act 2008, and as part of the notification of the accepted application undertaken under section 56 of the Planning Act 2008. Any unregistered land was further discussed during negotiation of the Heads of Terms with landowners to ascertain whether any neighbouring landowners claimed ownership of these plots. As noted in response to Q1 CA 1.25, the Applicant will be carrying out further HMLR refreshes ahead of Deadlines 3 and 6 to ensure any updates to the land interests generally, but including plots where ownership is unknown, are captured in the BoR, and the Applicant is continuing contact with landowners, agents and legal representatives to

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			also further this aim. Should any other legal documentation become available to the Applicant that would assist in identifying unknown interests in land, those will be investigated.
Q1 CA 1.27	The Applicant	**Known inaccuracies** Are any Affected Persons or relevant Interested Parties aware of any inaccuracies in the BoR [PD1-029], SoR [AS1-032] or Land Plans [REP1-004] and [REP1-005]?	
Q1 CA 1.28	The Applicant	**Professional Fees** Outline your approach to the reimbursement of Affected Person's professional fees.	The Applicant has agreed rates for the reimbursement of professional fees in connection with consultation, surveys, and negotiation of voluntary agreements. Payment for agent representation has been agreed with the agents and was discussed within the Land Interest Group meetings held during the negotiation of voluntary agreements. Undertakings for legal fees have also been provided where Heads of Terms have been agreed and legal documentation is being negotiated. In the case of land which may be subject to Compulsory Acquisition, the Applicant has included reasonable and proper fees within the Property Cost Estimate for both land agent and legal fees in respect of the agreement of appropriate compensation.
Q1 CA 1.29	The Applicant	**Work no.17** The ExA notes the Applicant's response [AS-013] to its request [PD-005] for further information to justify the acquisition of rights over this area of the Proposed Development and is not satisfied that the information provided in this response sets out a compelling case in the public interest, as required by section 122(3) of the Planning Act 2008 (PA2008), for the acquisition of permanent rights over the full extent of land currently identified as being required for Work no.17 [AS1-029]. Neither is the ExA currently satisfied that the reasons given by the Applicant for the acquisition of permanent rights over the full extent of land meet the conditions of section 122(2) of PA2008. ▪ The Applicant is asked to demonstrate (with a drawing, or drawings, if possible) the relationship between its required cables and associated infrastructure and a notional National Grid substation. In particular, the ExA wishes to see evidence that with the Applicant's required infrastructure and a National Grid substation (NGSS) indicatively positioned on the site of Work No17, the Applicant would genuinely require the flexibility to route underground 400kV cables anywhere within the Connection Area. ▪ The ExA notes that the Applicant does not intend to exercise powers of compulsory acquisition over the entire Connection Area and that once the location of the NGSS is established and the route of the 400kV cables is determined following surveys, ground investigations and engineering considerations, only the temporary and permanent powers necessary would be exercised. The Applicant is asked to signpost where it has set out and proposes to secure the appropriate controls to ensure that it would only exercise powers over the extent of land that it would require. ▪ The ExA further notes that the Applicant believes that its approach of seeking compulsory acquisition powers over a wider area before refining	▪ The Applicant has submitted alongside this response a set of drawings which can be found in Appendix 1.6 Q1 CA 1.29, showing purely indicative National Grid substation locations and the associated indicative cable route required by the Applicant to connect into the notional substation. It should be noted that the National Grid substation could be located anywhere within the zone and the Project has selected a few notional locations for illustrative purposes only. The Applicant has also provided a plan showing the various scenarios merged into a single plan to outline why the entire connection zone could genuinely and reasonably be required until the location of the National Grid substation and connection points for the project are finalised. It should be noted that the locations of the National Grid substations and cable corridors are purely indicative, and are suggestions made by the Applicant without engaging with National Grid or other parties. ▪ The DCO only authorises the undertaker to exercise powers over the extent of land that it would require. Pursuant to Art. 20, the undertaker may "acquire compulsorily so much of the Order land as is required for the authorised project or to facilitate it, or is incidental to it". For the reasons set out in the Applicant's response to Q1 CA 1.2, no further limitation is necessary. In short, the undertaker would be acting unlawfully if it sought to exercise the powers to acquire land that was not required for the construction, operation, maintenance or decommissioning of the Project, and has no incentive to do so. There is no commercial benefit to the Applicant in acquiring land within the Order Limits save in so far as this serves the purpose of enabling the Project to be delivered and operated. Any land or interest in land that is acquired will result in the Applicant incurring liability for compensation, creating a strong commercial incentive to limit the exercise of compulsory powers to the minimum required. Those existing legal and commercial constraints are not unique to this project, and help to explain why there are (as far as the Applicant is aware) no made

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		the area over which powers are ultimately exercised is standard across large linear NSIP projects. The ExA requests that the Applicant provide it with specific examples of consented DCO applications where rights have been acquired compulsorily over a similar area of land for the reasons relied on by the Applicant in this case. ▪ Provide an update on the negotiations with owners, occupiers and those with any other interests in the land affected by the Connection Area with reference to the objections raised in the WR submitted by National Grid [REP1-041] and the Applicant's observation in its responses to Relevant Representations [PD1-071, RR-065.001] that St John's College Cambridge has withdrawn from negotiations and does not wish to proceed with an Option Agreement.	DCOs which contain additional controls seeking to control the proportionality of the exercise of compulsory powers after the Order is made. In all cases it is for the decision-maker to reach a judgment on proportionality at the stage of determining the application for the Order, including the justification advanced for any flexibility sought in the area over which such powers may be exercised. In this case it is plain that there is a need for such flexibility in respect of Work No. 17, for the reasons set out below. The Applicant considers that the tests set out in Section 122(2) and (3) are met. Section 122(2) of the Planning Act 2008 requires that the Secretary of State be satisfied that the powers sought are required for the development to which the development consent relates or is required to facilitate or are incidental to it. The works within the Connection Area (part of Work No. 17 and shown on Figure 3.3.15 (APP-089)) are part of the development to which the development consent relates as the draft DCO is seeking authorisation to construct Work No. 17 within the Connection Area. The ability to use compulsory acquisition powers in the whole of the Connection Area is required because the Project's 400kV cables have to terminate into the allocated bays within the National Grid substation boundary to then be able to connect into that substation, and ultimately transmit the power generated by the offshore generating station to the National Grid. The Applicant is not seeking to consent any works for National Grid Electricity Transmission (NGET) in relation to the new National Grid substation, nor is it seeking to acquire any rights in that area for the benefit of any other party or project. The Connection Area has already been narrowed as far as reasonably possible at this stage of the process while still allowing the necessary flexibility to route the cables anywhere within the Connection Area once the final location of the National Grid substation is confirmed. Further certainty as to the location cannot be provided at present as NGET is still undertaking early non-statutory consultation on its proposals for a new substation at Weston Marsh It is also not yet known where the connection point for the Project would be in relation to the National Grid substation. The Applicant is therefore seeking powers within the Connection Area to acquire rights to install and use the 400 kV cables and to access the 400kV cables. These powers are necessary and sought over the whole area because of the uncertainty referred to above regarding the precise location, layout, and orientation of the National Grid substation. The Applicant needs to be able to route the cables to any point that National Grid determine. With respect to section 122(3) of the Planning Act 2008, the Applicant considers that there is a compelling case in the public interest for rights in the land to be acquired compulsorily, including as to the extent of flexibility sought as to the area over which the powers may be exercised in respect of Work No.17. The Planning Statement (APP-297) and Section 3 of the Statement of Reasons (REP1-014) demonstrate the need for the Project and the significant benefits which are in the public interest.

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			NPS EN-1 (paragraph 3.2.6) provides that all applications seeking development consent for energy NSIPs should be assessed by the SoS on the basis there is a demonstrated need for those types of infrastructure and that the scale and urgency of that need is as described in NPS EN-1 (Section 3.2). Furthermore, the SoS has determined that substantial weight should be given to this need when considering applications for development consent under the Planning Act 2008 (NPS EN-1, paragraph 3.2.7). In this policy context, the Project would make a substantial contribution towards the delivery of renewable energy in line with the need to significantly decarbonise the power section by 2030 and should therefore be ascribed substantial weight in the balance of considerations and the presumption in favour of such developments. The principal need for the Project is therefore established. To limit the area over which compulsory acquisition powers could be used in the Connection Area would risk the timely delivery of the Project and in turn the urgently required contribution it would make to the net zero targets in the event that the National Grid Substation is sited somewhere within the Connection Area that is not covered by such powers, and the Applicant has not been able to negotiate a voluntary land deal. While the Applicant is committed to securing as many of the rights it needs as possible by voluntary land deals, it requires the use of compulsory acquisition powers as a backstop to enable this Nationally Significant Infrastructure Project to be developed if granted development consent. The Applicant considers that the significant public benefits outweigh the effects on those with interest in the Connection Area. ▪ As the ExA has noted, the Applicant's position is that it is common practice in DCOs for the compulsory acquisition powers to be sought over a wider area before being refined post-consent as part of the process of detailed design, leading ultimately to the exercise of such powers over a smaller area. There are a number of examples of consented DCOs seeking powers over an area which is greater than the parameters of the infrastructure to be constructed in that location - providing the reasonable degree of flexibility required to ensure delivery of the project. In this case the necessary flexibility to ensure delivery includes a sufficiently large area to ensure a connection to the National Grid can be achieved. Examples where this approach has been adopted include ○ Sheringham Shoal and Dudgeon Extension Projects (SEP&DEP): The Works Plans (Onshore) (SEP&DEP Examination Library reference AS-050) show, on sheet 39 of 40, the area within which SEP&DEP have consent to place Work No. 16A/B or 16C, and Work No. 17A/B or 17C and over which SEP&DEP have been granted powers to compulsorily acquire rights (as shown on the SEP&DEP Land Plans (SEP&DEP Examination Library reference REP7-002) on sheet 39 of 40 and as set out in Schedule 7 of the Sheringham Shoal and Dudgeon Extensions Offshore Wind Farm Order 2024). Work No. 16A, 16B and 16C relate to the cables to be installed between the SEP&DEP onshore substation and the existing Norwich Mains substation, and Work No. 17A, 17B and 17C relate to the works to

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			connect to the Norwich Mains substation. The areas in which the cables can be installed and connection works undertaken covers areas on both sides of the existing substation, as well as the majority of the area between the proposed onshore substation and the Norwich Mains substation. It is understood that the areas over which the power to compulsorily acquire rights for both Work No. 16 and Work No. 17 were widely drawn to account for flexibility required to connect into the existing substation at a connection point to be determined by National Grid. In its recommendation report, the ExA considered the case for compulsory acquisition in the event that the Secretary of State disagreed with its recommendation not to grant development consent. At paragraph 28.14.19 of the recommendation report, the ExA noted that if the Secretary of State took a different view to it on appropriate compensation being secured in relation to HRA, then the ExA considered that the private loss as a result of the granting of compulsory acquisition powers would be necessary, justified, proportionate and mitigated as far as possible. ○ Hornsea Three: The Works Plans (Onshore) (Hornsea Three Examination Library reference REP9-035) show, on sheet 34 of 36, the area around the existing Norwich Mains substation within which Hornsea Three has consent to place Work No. 11. Hornsea Three has powers to compulsorily acquire rights over the land shaded blue on sheet 34 of 35 of the Hornsea Three Land Plan (Hornsea Three Examination Library reference REP9-017) (as set out in Schedule 6 of the Hornsea Three Offshore Wind Farm Order 2020). Work No. 11 relates to the cables to be installed between the Hornsea Three onshore substation and the existing Norwich Mains substation. The area in which the cables can be installed encircles the existing Norwich Mains substation. It is understood that Work No. 11 was widely drawn to account for flexibility required to connect into the existing substation at a connection point to be determined by National Grid. In its recommendation report, the ExA considered the case for compulsory acquisition in the event that the Secretary of State disagreed with its recommendation not to grant development consent. In that context, the ExA noted at paragrpah 19.6.7 that "…the Applicant has explained its reasons for seeking design flexibility in respect of the transmission system and has justified the approach it has taken to these matters and to design flexibility generally. On that basis we are satisfied that the Applicant has a clear idea of how the land which is to be acquired is to be used and that all the land is reasonably required in order to deliver the project." ○ Awel Y Môr: The Works Plan (Awel Y Môr Examination Library reference REP6-029) shows, on sheet 11 of 11, the area around the existing Bodelwyddan substation within which Awel Y Môr has consent to place Work No. 40, being electrical works to connect to the National Grid substation. The Bodelwyddan substation is noted in the Awel Y Môr Project Description (Awel Y Môr Examination Library reference REP8-060)

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			at paragraph 170 as requiring enabling works which are "anticipated to require the extension of the existing 400 kV substation compound, extension of the existing GIS buildings and associated electrical and civil works." The Awel Y Môr Statement of Reasons (Awel Y Môr Examination Library reference REP8-019) makes it clear flexibility has been incorporated into the footprint of the Order Limits to accommodate the uncertainty of precisely where the connection point into the substation will be. The Statement of reasons states at paragraph 25: *"Some flexibility is required in this area as it is not yet known where the connection to the substation will be created. National Grid are currently designing works to extend this substation, and the Project requires to be able to connect into the substation as directed by National Grid having regard to the design of those works. Accordingly, the cable corridor currently allows connection to the substation at more than one point in order to ensure that the appropriate connection can be made once it is specified by National Grid."* In the Awel Y Môr examination, when justification for the area over which compulsory acquisition powers was sought by the ExA in its first round of written questions, in response to question 3.17 the Applicant explained (Awel Y Môr Examination Library reference REP1-007): *"The Applicant has a connection agreement with National Grid and there is therefore certainty that a connection will be provided to the Applicant at this substation, however the precise connection point is not yet known. The degree of flexibility sought in the dDCO reflects the position that at this stage, the Applicant cannot be certain where in the substation or its proposed extension the connection point for the authorised development will be. Until National Grid issues a final design for the extension and confirms which connection bays the Applicant is to use, the Applicant requires the flexibility sought in this area to allow for routing of the cables and detailed design of works to ensure that the connection can be made. The land is accordingly included to access three sides of the substation. Land take will be the minimum necessary when exercising the powers (should that be required) as the National Grid design will have progressed and the location of the Awel y Môr connection point confirmed."* In their recommendation report, the ExA concluded under the heading of General Considerations that *"Having regard to the above and to the Applicant's responses to the ExA's written questions and discussions at CAH1, the ExA is satisfied with the Applicant's conclusions on the generality of the case*" and in respect of its overall conclusions on compulsory acquisition, stated that *"the land to be taken is no more than is reasonably required and the proposed land-take is proportionate."* The Applicant notes the ExA's request is for examples of consented DCOs taking this approach, but it is also important to also note that Outer Dowsing Offshore Wind is not the only project at DCO examination stage which is, by reason of wider grid upgrades being undertaken by National Grid, not in a position to yet narrow its final connection point and as such, is seeking to include compulsory acquisition powers in its DCO for an area in which the substation is proposed to be located but which is not yet precise. Five Estuaries is in the same position, with its final grid connection location to be determined as part of National Grid's Norwich – Tilbury Project. Work No. 16 of the Five

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			Estuaries draft DCO (Five Estuaries Examination Library reference REP3-005) relates to electrical works to connect to the National Grid substation. The location of Work No. 16 is shown on the Five Estuaries Works Plan – Onshore (Five Estuaries Examination Library reference REP3-004) on sheet 18 of 20. The corresponding area is shown on the Land Plans- Onshore (Five Estuaries Examination Library reference AS-019) as an area over which Five Estuaries is seeking powers to compulsorily acquire rights. The Five Estuaries Project Description (Five Estuaries Examination Library reference AS-041) notes at paragraphs 1.6.8-1.6.9 that: *"1.6.8 National Grid have identified a EACN construction and operational zone within which they anticipate their EACN substation will be located. This is the orange hatched highlighted area illustrated on Figure 1.8. At this stage NGET have not confirmed the exact location of the EACN substation within this area. NGET have provided outline parameters for the EACN substation.* *1.6.9 The whole EACN construction and operational zone has therefore been included within the VE Order Limits to ensure that the works required to connect the new VE OnSS to the National Grid EACN substation (as set out above) are encapsulated and appropriately assessed."* North Falls includes a number of options for connecting to the grid within its design envelope. These are set out in its Project Description (North Falls Examination Library reference APP-019) and include an onshore connection for the project alone within the Tendring peninsula of Essex, an onshore connection for the project in co-ordination with Five Estuaries within the Tendring peninsula of Essex, or an offshore connection supplied by a third party. With regard to the onshore connection, Work No. 14 of the North Falls draft DCO (North Falls Examination Library reference AS-022) relates to electrical works to connect a National Grid substation. The location of Work No. 14 is in the same area as the Five Estuaries proposed connection (Work No. 16 of the Five Estuaries DCO), as can be seen on the Works Plans – Onshore (North Falls Examination Library reference AS-019) on sheet 16 of 16. The corresponding area is shown on the Land Plans (North Falls Examination Library reference AS-018) as an area over which North Falls is seeking powers to compulsorily acquire rights. It is clear that as a result of the upgrades required to the grid network, including the provision of new substations required to connect upcoming offshore wind projects, that are being undertaken by National Grid, there will necessarily be some uncertainty over the precise location of infrastructure which is yet to be authorised and a corresponding need for flexibility when granting DCOs for projects that are to connect to this infrastructure. There is a pressing need for the renewable energy infrastructure proposed in the Outer Dowsing offshore wind farm application now, and with that, to grant the compulsory acquisition powers required to ensure that the Project can be delivered. If the Project had to wait until there was greater certainty over the grid connection location, that would ultimately delay its delivery and result in the Project not contributing to 2030 targets. NPS EN3 specifically recognises the potential need for offshore wind projects to provide for flexibility to account for uncertainty in the location of onshore substations: *"Flexibility in the project details*

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			2.8.74 Owing to the complex nature of offshore wind farm development, many of the details of a proposed scheme may be unknown to the applicant at the time of the application to the Secretary of State. Such aspects may include: *…* *• the exact locations of offshore and/or onshore substations;"* For all the above reasons, the powers sought in respect of the Connection Area are necessary and proportionate. ▪ Please refer to the Compulsory Acquisition and Land Rights Tracker [document 15.4, version 3] for an update on the status of negotiations with those affected by the Connection Area. **Affected Persons** / **Page number** Robert Henry Oldershaw & Bridgett Lucy Posey & Jane Roberta Ashby Cooke & Denis John Grimwood — 5 John Grant (Donington) — 4 George Hay & Sons Limited — 5 Ian Fred Pennington & Jennifer Anne Pennington — 5 Ian Fred Pennington — 5 Mary Lake — 4 St John's College Cambridge — 6 The status of the two Affected Persons who have not signed up to Heads of Terms remains the same however the Applicant is seeking to engage with the Affected Persons agents to try and move negotiations forward. The Applicant notes the concerns that NGET have raised within their WR [REP1-041] regarding the protection of their future projects and this is the subject of discussion between the Applicant and NGET with regard to a set of Protective Provisions for inclusion within the DCO.

1.7 Draft Development Consent Order (dDCO)

Table 1.7: Draft Development Consent Order (dDCO)

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Draft Development Consent Order (dDCO)			
Q1 DCO 1.1	The Applicant	**General** Provide an up-to-date list of made Orders which the Applicant is citing/referencing in the preparation of the dDCO [AS1-024]	The Applicant has submitted an updated dDCO as part of its deadline 2 submissions. The approach to the dDCO has been developed through consideration of examples of made DCOs cited and referenced in the Explanatory Memorandum, listed below.

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			As set out in the Explanatory Memorandum, notwithstanding its repeal, the drafting of the dDCO has also been derived from the Infrastructure Planning (Model Provisions) (England and Wales) Order 2009 (the Model Provisions). • the Triton Knoll Electrical System Order 2016 • the National Grid (Richborough Connection Project) Development Consent Order 2017 • the Network Rail (East West Rail) (Bicester to Bedford Improvements) Order 2020 • the Hornsea Three Offshore Wind Farm Order 2020 • the Norfolk Boreas Offshore Wind Farm Order 2021 • the Manston Airport Development Consent Order 2022 • the East Anglia ONE North Offshore Wind Farm Order 2022 • the East Anglia TWO Order Offshore Wind Farm Order 2022 • the Norfolk Vanguard Offshore Wind Farm Order 2022 • the Hornsea Four Offshore Wind Farm Order 2023 • the Boston Alternative Energy Facility Order 2023.
Q1 DCO 1.2	The Applicant	**Part 1, Article 2** Definition of "Commence" The ExA notes that the Explanatory Memorandum [APP-304], paragraph 3.4 includes examples of onshore preparatory works which may themselves have environmental effects. Confirm whether the examples given in the Explanatory Memorandum provide a complete list of the Schedule 1, Part 3 Requirements that must be discharged before the development commences. If not, please provide a complete list.	In relation to the ExA's comment that the Explanatory Memorandum ("EM") "includes examples of onshore preparatory works which may themselves have environmental effects", please note that the examples provided at paragraph 3.4 of the EM are a complete list of all preparation works which have been made subject to appropriate requirements in Schedule 1, Part 3. The Applicant notes that the ExA has requested a complete list of "the Schedule 1, Part 3 Requirements that must be discharged before the development commences". The complete list of Schedule 1 Part 3 Requirements that must be discharged before the development commences is provided below. Where Requirements include elements related to preparation works (Requirements 12, 17, 22) this is set out in brackets. ▪ Requirement 7 (Offshore decommissioning) ▪ Requirement 8(1) (Stages of authorised development onshore) ▪ Requirement 9(1) (Detailed onshore design parameters) ▪ Requirement 10(1) (Provision of landscaping) ▪ Requirement 12(1) and (2) (Ecological management plan) (Requirement 12(2) requires the approval of an ecological management plan prior to onshore preparation works being undertaken) ▪ Requirement 13(1) (Fencing and other means of permanent enclosure) ▪ Requirement 15(1) (Operational drainage management and emergency flood response) ▪ Requirement 16(1) (Contaminated land and groundwater) ▪ Requirement 17(1) and (2) (Onshore archaeology) (Requirement 17(2) requires that any archaeological investigations that are to be carried out as part of the onshore preparation works must only take place in accordance with a specific

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			written scheme of investigation submitted to and approved by LCC in consultation with the relevant planning authority and Historic England) ▪ Requirement 18(1) (Code of construction practice) ▪ Requirement 21 (Traffic) ▪ Requirement 22 (Public rights of way) (No stage of the onshore preparation works that would affect the specified public rights of way can be undertaken until a public access management plan has been submitted to and approved by the relevant highway authority in consultation with the relevant planning authority). ▪ Requirement 25(3) (Control of noise during operational phase) ▪ Requirement 30 (1) (Skills, supply chain and employment) Please note that in relation to the offshore works, pre-commencement conditions are also included in the deemed marine licences set out at Schedules 10 to 16 of the dDCO.
Q1 DCO 1.3	The Applicant	**Part 1(2) Interpretation** For the works landward of Mean High Water Springs (MHWS) the definition of commence in the dDCO excludes "*onshore preparation works*". In turn, the definition of "*onshore preparation works*" includes a number of operations, such as site clearance, vegetation clearance, the diversion and laying of services, erection of any temporary means of enclosure, and the creation of site accesses that could give rise to environmental effects. Justify why these operations should fall outside of a definition of commence and therefore not be subject to any of the precommencement Requirements that are contained in the dDCO.	The drafting of "commence" follows similar definitions within made DCOs including, for example, ▪ the Hornsea One Offshore Wind Farm Order 2014, ▪ the Walney Extension Offshore Windfarm Order 2014 ▪ the Hornsea Two Offshore Wind Farm Order 2016 ▪ the Triton Knoll Electrical System Order 2016 ▪ the Hornsea Three Offshore Wind Farm Order 2020 ▪ the Norfolk Boreas Offshore Wind Farm Order 2021 ▪ the Norfolk Vanguard Offshore Wind Farm Order 2022 ▪ the Hornsea Four Offshore Wind Farm Order 2023 ▪ the Sheringham Shoal and Dudgeon Extensions Offshore Wind Farm Order 2024. The ability to carry out certain preparatory works in advance of commencement is essential to construction programming. This is a standard approach which allows certain works ("onshore preparation works" and "offshore preparation works") to be carried out prior to discharge of pre-commencement requirements and the finalising of detailed design. However, as explained in DCO 1.2, certain of these works are still subject to requirements. This, too, is a standard approach taken in made Development Consent Orders which make certain parts of their preparation works which are to be carried out prior to commencement subject to certain Requirement, typically related to the need for certain approved Management Plans to be in place prior to such preparation works beginning. Taking this approach is essential to ensuring that Critical National Priority Infrastructure projects such as this, for which there is an established urgent need under policy (NPS EN-1 and EN-3) may be delivered in timelines commensurate with their urgency in the public interest. Ensuring rapid delivery of such infrastructure once approved requires that obstacles to construction are not imposed unless necessary. The Applicant believes that

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			the approach taken – making some but not all preparatory works subject to Requirements – strikes this balance appropriately. There are a range of practical reasons that preparation works are to be carried out prior to commencement. For instance, clearance works require to be carried in advance to ensure no sensitive receptors are present within the construction area. Preparation works related to the readying of construction sites are needed to ensure a safe working environment prior to construction. It should be noted that certain preparation works would not be classed as "development" under the Town and Country Planning Act 1990 and/or would benefit from permitted development rights under Schedule 2 of the Town and Country Planning (General permitted Development) (England) Order 2015) (GPDO). For example, non-intrusive surveys are not classed as development and can be carried out without planning permission and the erection of temporary means of enclosure would be permitted pursuant to Part 4 of the GPDO (subject to removal after construction is complete and related reinstatement as required under the dDCO).
Q1 DCO 1.4	The Applicant The Environment Agency	**Part 2, Article 7** The ExA notes the Principal Areas of Disagreement Summary Statement (PADSS) submitted by the Environment Agency (EA) [PD1-104] noting that agreement has yet to be reached over the wording of Protective Provisions which would allow the EA to agree to the disapplication of the Environmental Permitting Regulations 2016 in relation to flood risk activity permits. ▪ Provide an update on negotiations over the wording of the relevant Protective Provisions and include an anticipated target date for completion and submission of agreed Protective Provisions into the Examination	Since the issue of the PADSS by the EA, the Applicant is continuing to engage with the EA regarding the Protective Provisions and only a very small number of points remain outstanding. The Applicant understands there are some resource constraints at the EA at present and will update the ExA as soon as an anticipated target date is determined.
Q1 DCO 1.5	The Applicant Lincolnshire County Council (LCC)	**Part 3, Articles 12 to 16** In its Local Impact Report (LIR), LCC [REP1-053] requests a time frame of 56 days as more reasonable if deemed consent were to be retained. **To the Applicant:** The ExA notes that while the Explanatory Memorandum [APP-304] cites the Hornsea 4 Order, among others, as precedent for the wording of these Articles (more specifically Articles 13 and 15), the Applicant has not adopted the 56 day timeframe set out in the made Order for that development and asks the Applicant to justify, with reasons, its proposal for a shorter timeframe in this case. **To LCC:** Explain, with further reasoning, why a time period of less than 56 days is not considered sufficient by the local authority	The Applicant notes LCC's position and, on this basis, is content to adopt a deemed consent period of 56 days for each of Articles 12, 13, 15, 16. The Applicant has amended the DCO and Explanatory Memorandum at Deadline 2 to reflect these amendments.
Q1 DCO 1.6	The Applicant	**Part 3, Article 15**	The Applicant considers that this power is reasonable and necessary and provides sufficient flexibility to the Applicant without providing a disproportionate amount of

Question ID	Question addressed to	Question	Response
		The ExA is concerned that the power in this Article, in which the Undertaker may "alter the layout of any street" may be too wide and onerous. The ExA considers that at the very least, it should be restricted to those streets within the Order limits. Respond and amend the dDCO [AS1-024] if necessary.	discretion to it. Narrowing the Article would not be appropriate given the Applicant's detailed design has not yet been finalised and there are specific limitations which curtails the Article's use. As set out in the draft Development Consent Order and the Explanatory Memorandum, the Article is limited by the requirement that the powers cannot be exercised without the consent of the street authority (Article 15(1)) and the undertaker must restore any street temporarily altered to the street authority's reasonable satisfaction (Article 15(2)). Though the Article provides for deemed consent should the street authority not respond to requests for consent, the Applicant has agreed to double the period for street authority consideration prior to which consent is deemed (from 28 to 56 days), thus further reducing the extent of the power conveyed in this Article. This Article is well-precedented and can be found in this form in a great number of made Development Consent Orders. This reflects a consistent approach by Secretaries of State of recognising its necessity, appropriateness and importance. Of particular relevance to its inclusion in this draft Development Consent Order is that fact that equivalent provisions are contained in the offshore wind DCOs Hornsea Three Offshore Wind Farm Order 2020 and the Hornsea Four Offshore Wind Farm Order 2023. There are no circumstances here that would distinguish this case from those two precedents and justify a different approach by the Secretary of State. Similar provisions are also contained in the Drax Power (Generating Stations) Order 2019, the Great Yarmouth Third River Crossing Development Consent Order 2020, the Longfield Solar Farm Order 2023; and the Net Zero Teesside Order 2024; each of which provide a general power of alteration as well as powers in relation to specified streets in Articles 10, 9, 9 and 10 of the respective Orders.
Q1 DCO 1.7	The Applicant	**Part 5, Article 22 and 30** Explain, with reasons, why the Applicant believes that the use of restrictive covenants on the plots set out in Schedule 7 would be appropriate. In particular, the Applicant is asked to provide clarity around the full extent of powers that such restrictive covenants would contain, to provide justification for the use of such powers and to indicate, with realistic examples, how these powers might be used.	It is appropriate and proportionate to impose restrictive covenants on the plots set out in Schedule 7 because the imposition of restrictive covenants provides the Applicant with the assurance that certain activities on the land which may interfere with the Project cannot take place, which in turn enables the Applicant to minimise the impact of acquisitions where appropriate by imposing a restrictive covenant rather than acquiring the land. The restrictive covenants proposed to be imposed are identified in Column 2 of the table in Schedule 7, with the plots to which they could relate specified in column 1 of the said table. The restrictive covenant proposed varies depending on the rights being sought in the relevant plots but generally, where the rights being sought relate to laying and maintaining the cables, the restrictive covenant would prevent anything being done in or upon the Land or any part thereof which interferes with or might interfere with the exercise of the rights or the use of the cables or in any way render the cables in breach of any statute or regulation for the time being in force and applicable thereto. Without prejudice to the generality of this restrictive covenant, some specific restrictions prevent

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			the construction of any buildings on the land, the surfacing of land, the carrying out of any excavations or works to a depth greater than 0.75 metre on or in the land, or the planting of any trees or shrubs on the land. In those plots where rights to lay and maintain cables are not being sought, but other rights required to construct, retain, operate, protect, maintain and decommission the Project are sought, the restrictive covenant would prevent anything being done in or upon the land or any part thereof which interferes with or might interfere with the exercise of the rights. Without prejudice to the generality of this restrictive covenant, some specific restrictions prevent the construction of any buildings on, the surfacing of, the carrying out of any excavations or works on or in, or the planting of any trees or shrubs on, the land. It should be noted there are also a number of plots where rights are being sought, and no restrictive covenants are proposed. This is because the rights required by the Project are of access over land and no restrictive covenants are required to protect infrastructure. The ability to compulsorily acquire rights in, and impose restrictive covenants over, land is necessary and important in the public interest to enable the Applicant to construct, retain, operate, protect, maintain and decommission this nationally significant infrastructure project and do so safely. The imposition of restrictions on the use of the land by others is necessary in order to protect the Project, for example to protect the onshore export cables from becoming exposed or damaged, or built over. Such restrictions are necessary over the Onshore ECC to ensure the cables are not damaged by construction or excavation works or made materially harder to access in case of emergency or routine works to the cables being required. By way of specific examples of how these powers might be used, the planting of trees or shrubs over the cables could result in damage to or interference with the cables from the roots of those trees or shrubs, and excavations at a depth greater than 0.75 metres also have the potential to result in damage to the cables. As such, in any case where the Applicant acquires compulsorily the rights set out in Schedule 7, it is envisaged that the corresponding restrictive covenants as set out in Schedule 7 would be imposed in relation to those plots in order to prevent such damage on the basis that these restrictive covenants are necessary to protect the Project.
Q1 DCO 1.8	The Applicant	**General** In order to avoid the potential for legislative ambiguity, the use of the words 'shall' and 'should' in legislative drafting are discouraged by guidance issued by the Planning Inspectorate in its Advice Note 15. The ExA notes that these words appear in drafting throughout the dDCO [AS1-024]. Please amend the dDCO so that the drafting follows the guidance, or provide specific justification to explain why deviation from the guidance is necessary as part of this application.	The Applicant has submitted an updated dDCO at deadline 2, which incorporates the requested amendment, where appropriate. The Applicant notes in particular that the Protective Provisions for the benefit of Port of Boston Limited and for Anglian Water Services Limited contain references to "shall". The wording of each set of Protective Provisions has been agreed with the Port of Boston Limited and Anglian Water Services Limited, as such, the Applicant has retained the agreed text.
Q1 DCO 1.9	The Applicant	**Operational lifespan** The Project Description [APP-058, paragraph 298] states that the Proposed Development's operational period will be approximately 35 years. Provide	The Applicant does not believe that it is necessary to provide a more precise definition of the operational period or for this period to be secured within the dDCO or other certified document. The Applicant is not seeking a time-limited consent and there are no other

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		signposting which indicates where the operational period is more precisely defined and where it is secured. Alternatively explain, with reasons, why the Applicant believes it is not necessary to provide a precise definition of the operational period or for this period to be secured within the dDCO or other certified document(s).	reasons that would make it necessary, reasonable and appropriate (in accordance with NPS EN1 paragraph 4.1.16) to impose a requirement that the operational period comes to an end after 35 years. It is anticipated that the Project will be decommissioned at some point in the future. 35 years is a typical operational lifetime of an offshore wind farm, based on other projects which are reaching the end of their operational life. An operational lifetime of 35 years assumes that certain major components will have already been replaced during the lifetime. The operational life of the wind farm ends when the equipment becomes obsolete, replacement parts are no longer available, it suffers a major failure, or it is no longer economic to continue to maintain and operate it. The lifetime cannot be precisely defined at this stage but approximately 35 years is the Applicant's best estimate. The Applicant notes that the definition of "maintain" is limited to those activities which have been assessed in the environmental statement and therefore would exclude repowering. Repowering of the Project would require a separate consent, as recognised in NPS EN-3 at paragraph 2.8.81 (which also recognises that any new consent application for repowering would be subject to relevant environmental assessments at that time). Paragraph 4.7.13 of NPS EN-1 states: "*Assessment of impacts must be for the stated design life of the scheme rather than a shorter time period.*" What is meant by "design life" will depend on the context, however, in general, the design life of a component means the period of time for which that component is expected to function as intended, with anticipated maintenance but without major repairs or replacement. The anticipated 35-year operational life which forms the basis of the assumptions in the assessment encompasses both the design life of all of the components and anticipated major maintenance and repair activities set out in section 9 of Chapter 3, Project Description of the ES (APP-058). The Applicant's assessments have assumed long-term impacts from the Project during the operational phase and therefore the conclusions would apply for an operational lifetime that exceeds 35 years. A high-level summary of the position for each of the assessments is set out below. **ES Chapter** | **Effect on the conclusion of the operational phase assessment if a longer operational life is assumed** Marine Physical Processes (APP-062) | Marine Physical Processes modelling assumed a 35 year operational life as an input parameter. It is considered, based on the application of professional judgement, that the conclusions of the assessment would continue to apply for an operational lifetime that exceeds 35 years where that extension was within a reasonable period of 5-10 years. The Applicant considers it highly likely that the operational life of the Project would come to an end due to the reasons outlined above within this period.

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			Marine Water and Sediment Quality (AS1-038)	The Applicant's assessments have all assumed long-term impacts from the Project during the operational phase and therefore the conclusions would apply for an operational lifetime that exceeds 35 years.
			Benthic and Intertidal Ecology (APP-064)	The Applicant's assessments have all assumed long-term impacts from the Project during the operational phase and therefore the conclusions would apply for an operational lifetime that exceeds 35 years.
			Fish and Shellfish Ecology (APP-065)	The Applicant's assessments have all assumed long-term impacts from the Project during the operational phase and therefore the conclusions would apply for an operational lifetime that exceeds 35 years.
			Marine Mammals (APP-066)	The Applicant's assessments have all assumed long-term impacts from the Project during the operational phase and therefore the conclusions would apply for an operational lifetime that exceeds 35 years.
			Offshore and Intertidal Ornithology (AS1-040)	The Applicant's assessments have all assumed long-term impacts from the Project during the operational phase and therefore the conclusions would apply for an operational lifetime that exceeds 35 years. The Population Viability Analysis (PVA) has been conducted over a 35-year period, focusing on two primary metrics to interpret results: the Counterfactual of Population Size (CPS) and the Counterfactual of Population Growth Rate (CPGR). Both metrics assess the ratio of the impacted to unimpacted population over time. The impact assessment conclusions are based on the CPGR, which is a robust metric as it remains relatively consistent regardless of changes in the operational timeframe (i.e., the median annual growth rate difference remains stable). As such, extending the operational lifetime would not alter the conclusions. Additionally, the PVA models, following Natural England's guidance, did not include density dependence as a precautionary measure. This approach assumes the population cannot adjust to changes in size, which is an unrealistic scenario. Under these density-independent conditions, the CPGR provides the most reliable basis for drawing conclusions.

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			Marine and Intertidal Archaeology (APP-068)	The Applicant's assessments have all assumed long-term impacts from the Project during the operational phase and therefore the conclusions would apply for an operational lifetime that exceeds 35 years.
			Commercial Fisheries (APP-069)	The Applicant's assessments have all assumed long-term impacts from the Project during the operational phase and therefore the conclusions would apply for an operational lifetime that exceeds 35 years.
			Shipping and Navigation (APP-070)	The conclusions of the shipping and navigation assessment are not dependent on a quantification of a specific timeline.
			Aviation Radar Military and Communication (AS1-042)	The Applicant's assessments have all assumed long-term impacts from the Project during the operational phase and therefore the conclusions would apply for an operational lifetime that exceeds 35 years. This assumes that aviation regulations do not change further beyond the potential rule change already identified in the Helicopter Access Report (APP-175). No such regulatory change is anticipated.
			Seascape Landscape and Visual (AS1-056, APP-106, APP-107)	SLVIA effects are described as being long-term during the operational phase and reversible, therefore the conclusions would still apply for an operational lifetime that exceeds 35 years.
			Marine Infrastructure and Other Users (APP-108)	The Applicant's assessments have all assumed long-term impacts from the Project during the operational phase and therefore the conclusions would apply for an operational lifetime that exceeds 35 years.
			Onshore Air Quality (AS1-046)	The Applicant's assessments have all assumed long-term impacts from the Project during the operational phase and therefore the conclusions would apply for an operational lifetime that exceeds 35 years.
			Onshore Archaeology and Cultural Heritage (AS1-048)	The Applicant's assessments have all assumed long-term impacts from the Project during the operational phase and therefore the conclusions would apply for an operational lifetime that exceeds 35 years.
			Onshore Ecology (APP-076)	The Applicant's assessments have all assumed long-term impacts from the Project during the operational phase and

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				therefore the conclusions would apply for an operational lifetime that exceeds 35 years.
			Onshore Ornithology (APP-077)	The Applicant's assessments have all assumed long-term impacts from the Project during the operational phase and therefore the conclusions would apply for an operational lifetime that exceeds 35 years.
			Geology and Ground Conditions (APP-078)	The Applicant's assessments have all assumed long-term impacts from the Project during the operational phase and therefore the conclusions would apply for an operational lifetime that exceeds 35 years.
			Hydrology Hydrogeology and Flood Risk (APP-079)	The Applicant's assessments have all assumed long-term impacts from the Project during the operational phase and therefore the conclusions would apply for an operational lifetime that exceeds 35 years. In relation to flood risk specifically, the Applicant has carried out hydraulic modelling of the effects of the development using 75 years plus climate change, in order that any impacts to flood risk to third parties beyond 35 years has been assessed. This update to the modelling is expected to be submitted to the ExA at Deadline 4. The modelling has demonstrated that at 75 years, the development has a lesser impact upon flood hazard rating, compared with the assessment for 35 years carried in the FRA (AS1-068....084). This is because as flood depths increase with the additional years of climate change allowance, the effect of the development gets proportionately smaller.
			Land Use (AS1-050)	The Applicant's assessments have all assumed long-term impacts from the Project during the operational phase and therefore the conclusions would apply for an operational lifetime that exceeds 35 years.
			Onshore Noise and Vibration (APP-081)	The Applicant's assessments have all assumed long-term impacts from the Project during the operational phase and therefore the conclusions would apply for an operational lifetime that exceeds 35 years.
			Traffic and Transport (AS1-052)	The Applicant's assessments have all assumed long-term impacts from the Project during the operational phase and therefore the conclusions would apply for an operational lifetime that exceeds 35 years.

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Landscape and Visual Impact (APP-083)	The Applicant's assessment concludes no significant landscape, visual or cumulative impacts would occur beyond 15 years, therefore, the conclusions would apply for an operational lifetime that exceeds 35 years. Significant effects will be mitigated within a maximum of 15 years owing to the screening effect of proposed mitigation planting, with this mitigatory effect extending between 15 and 35 years and beyond.
Socio-economic Characteristics (APP-084)	The Applicant's assessments have all assumed long-term impacts from the Project during the operational phase and therefore the conclusions would apply for an operational lifetime that exceeds 35 years.
Human Health (AS1-054)	The Applicant's assessments have all assumed long-term impacts from the Project during the operational phase and therefore the conclusions would apply for an operational lifetime that exceeds 35 years.
Climate Change (APP-086)	The Applicant's assessments have all assumed long-term impacts from the Project during the operational phase and therefore the conclusions would apply for an operational lifetime that exceeds 35 years.

The Applicant highlights that the approach adopted by the Applicant is consistent with that followed by all other offshore wind farm DCOs in recent times. Their respective operational lifetimes are set out below. None of these projects have a specific requirement to decommission after their anticipated operational life.

Project	**Assumed operational life set out in the ES**	**Reference**
East Anglia One North	Assumed development life of 25 years	Paragraph 135, Chapter 20, Hydrology and Flood Risk, ES
East Anglia Two	Assumed development life of 25 years	Paragraph 135, Chapter 20, Hydrology and Flood Risk, ES
Hornsea Three	Anticipated to be 35 years	Paragraph 3.9.2.2, Chapter 3, Project Description, ES

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Hornsea Four	Anticipated to be 35 years	Paragraph 4.11.2.7, Chapter 4, Project Description, ES
Norfolk Boreas	Approximately 30 years	Table 5.3, Chapter 5, Project Description, ES
Norfolk Vanguard	Approximately 30 years	Table 5.3, Chapter 5, Project Description, ES
Sheringham and Dudgeon Extensions	40 years	Paragraph 210, Chapter 4, Project Description, ES

The Applicant highlights that any overrun in the operational lifetime of the Project will continue to generate critically important renewable electricity, fully in line with the policy drivers set out in NPS EN-1 and NPS EN-3. In particular, the Applicant notes the terms of NPS EN-1 paragraphs 3.2.3 and 3.2.4 which state "*It is not the role of the planning system to deliver specific amounts or limit any form of infrastructure covered by this NPS...*" and "*It is not the government's intention in presenting any of the figures or targets in this NPS to propose limits on any new infrastructure that can be consented in accordance with the energy NPSs*."

Since the conclusions of the ES would be unaffected by an overrun in the anticipated operational life of the Project, the benefits in terms of electricity generation that such an overrun would bring, the absence of precedent for any restriction on the operational period and the above paragraphs of the NPS, the imposition of a requirement necessitating decommissioning after 35 years would be unnecessary, disproportionate and unreasonable and therefore contrary to NPS EN-1 paragraph 4.1.16.

1.8Fish and Shellfish Ecology

Table 1.8: Fish and Shellfish Ecology

Question ID	Question addressed to	Question	Response
Fish and Shellfish Ecology			
Q1 FSE 1.1	The Applicant	**Assessment of effects on herring** Would there be any implications, for example regarding the need for additional mitigation measures, should the methodological assessment of the Marine Management Organisation (MMO) in (RR-042) be adopted, i.e. that herring be considered a high sensitive receptor and that there would be a moderate significance of effect which is significant in Environmental Impact Assessment (EIA) terms? If not, then please explain why.	The Applicant maintains the position that the conclusion of 'medium' sensitivity for herring is appropriate. The Applicant has provided a full response to this point in 'The Applicant's Response to Relevant Representations (PD1-071) reference: 4.5.15-4.5.17 (RR-42.80-RR-042.082). As detailed in paragraphs 76 to 81 and summarised in Table 10.10 within Chapter 10: Fish and Shellfish of the Environmental Statement (ES) (APP-065), the determination of sensitivity to an impact has been based on three criteria: (1) the receptor's vulnerability to the impact, (2) the potential for a receptor to recover, and (3) the value/importance of the

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			receptor. The 'medium' sensitivity definition includes "Regionally important receptors with high vulnerability and no ability for recovery" and "Internationally or nationally important receptors with medium to high vulnerability and low to medium recoverability". As described in paragraphs 134 to 136 of Chapter 10: Fish and Shellfish Ecology of the ES (APP-065), herring are considered to be of 'high' vulnerability to impulse sounds such as those generated during piling. The assigned 'high' vulnerability for herring represents the highest possible vulnerability score and considers that both survival and reproduction rates of herring could be affected during piling, through a combination of mortal and recoverable injuries, Temporary Threshold Shift (TTS) and behavioural changes to spawning herring. The recoverability of herring is assessed as 'low', acknowledging that recovery may take several years given the potential for localised lethal and sub-lethal effects and a temporal decrease in the reproductive output to part of the Banks spawning population. The Applicant wishes to highlight that the determination of recovery is made at a population level rather than at the individual level, i.e. it considers the general ability of the Banks herring spawning population as a whole to recover. As outlined in The Applicant's Response to Relevant Representations (PD1-071) reference: 4.5.15 (RR-42.80), piling itself will not change the characteristics of potential suitable herring spawning substrates, and any potential lethal effects would be restricted to areas close the piling locations, affecting a very small proportion of the Banks spawning population in areas outside the main spawning beds off of Flamborough Head. Sub-lethal effects such as TTS and behavioural changes are likely to affect a larger proportion of the population, but these effects are anticipated to be temporary and reversible. The Applicant therefore considers that the conclusion of 'low' recoverability is precautionary and appropriate. The importance of herring is assessed as 'regional' considering that the Banks herring spawning component is one of several herring spawning stocks inhabiting the North Sea. With regards to the value assessment, the Applicant wishes to highlight that even if herring were to be considered as nationally important, as suggested by the MMO, then the sensitivity determination of 'medium' sensitivity would not change, and the conclusions drawn within APP-065 would remain unchanged. The Applicant also wishes to refer to the impact assessment for the recently consented Hornsea Four project in the North Sea, which has drawn similar conclusions regarding the sensitivity of herring to underwater noise.

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Hornsea Four is located approximately 39 km to the north of the Project, and like the Project, is predicted to affect the Banks herring spawning component. The Hornsea Four impact assessment for fish and shellfish receptors concluded herring to be of 'high' vulnerability to underwater noise from piling and of regional importance, the same as for the Project. Recoverability was assessed as 'medium'. The sensitivity was assessed as 'high'; however, please note that the terminology used to describe the sensitivity categories differs between the two projects, with Hornsea Four assessing sensitivity as 'low', 'medium', 'high' and 'very high', while the sensitivity scores for the Project are termed 'negligible', 'low', 'medium' and 'high'. A comparison of the definitions associated with each sensitivity category (see Table FSE 1.1) shows that a 'high' sensitivity score in the Hornsea Four assessment equates to a 'medium' sensitivity category used for the Project. Therefore, the impact assessments for both Hornsea Four and the Project have come to the same conclusion with regards to the sensitivity of herring to piling noise.

The Applicant maintains that the assessment conclusions of a 'medium' sensitivity is appropriate and is in line with the methodology as set out within Chapter 10 of the ES (APP-065). As detailed above, had the methodology from Hornsea Four been used for the Project's ES, the terminology used would have been that of a 'high' sensitivity, however this would not have led to a change in overall EIA conclusions due to the different scale used between these projects. As such, this reinforces the Applicant's position that the stated sensitivity is appropriate.

Table FSE 1.1: Comparison of the herring sensitivity assessment methodology and conclusion between the Project and Hornsea Four

The Project		Hornsea Four	
Sensitivity methodology			
Sensitivity	Description	Sensitivity	Description
High	Internationally or nationally important receptors with high vulnerability and no ability for recovery.	Very High	Nationally and internationally important receptors with high vulnerability and no ability for recovery.
Medium	Regionally important receptors with high vulnerability and no ability for recovery. Internationally or nationally important receptors with medium to high vulnerability and low to medium recoverability.	High	Regionally important receptors with high vulnerability and no ability for recovery. Nationally and internationally important receptors with medium to high vulnerability and low to medium recoverability.
Low	Locally important receptors with medium to high vulnerability and low recoverability. Regionally important receptors with	Medium	Locally important receptors with medium to high vulnerability and low recoverability. Regionally important receptors with

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<tr><td></td><td>low vulnerability and medium recoverability. Nationally important receptors with low vulnerability and medium to high recoverability. Internationally important receptors with low vulnerability and high recoverability.</td><td></td><td>low vulnerability and medium recoverability. Nationally and internationally important receptors with low vulnerability and medium to high recoverability.</td></tr>
<tr><td>Negligible</td><td>Receptor is not vulnerable to impacts regardless of value/importance. Locally important receptors with low vulnerability and medium to high recoverability.</td><td>Low</td><td>Receptor is not vulnerable to impacts regardless of value/ importance. Locally important receptors with low vulnerability and medium to high recoverability.</td></tr>
<tr><td colspan="4">Sensitivity assessment</td></tr>
<tr><td>Vulnerability</td><td>High</td><td>Vulnerability</td><td>High</td></tr>
<tr><td>Recoverability</td><td>Low</td><td>Recoverability</td><td>Medium</td></tr>
<tr><td>Value</td><td>Regional</td><td>Value</td><td>Regional</td></tr>
<tr><td>Sensitivity</td><td>Medium</td><td>Sensitivity</td><td>High</td></tr>
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<tr><td>Q1 FSE 1.2</td><td>Cefas</td><td>Response to Natural England (NE)’s concerns regarding herring and sandeel
NE in its RR, page 13 of [RR-045], has raised concerns about herring spawning grounds and preferential habitat for sandeel. However, NE defers to the technical expertise of Cefas.
Therefore, do you have any comments to make regarding the potential impacts of the Proposed Development on herring and sandeel that NE has identified? Please submit any comments you may wish to make by no later than Deadline 2.</td><td></td></tr>
<tr><td>Q1 FSE 1.3</td><td>The MMO</td><td>Temporal restriction on piling activities
You have raised concerns in [RR-042], para 4.5.24, that there would be “potential for significant impacts to occur to Banks herring at a population level, if suitable mitigation is not employed.” You have recommended a licence condition prohibiting piling between 01 September and 16 October each year. Is it your view that such a restriction on piling should be enacted across the entire array area or are there any locations within the array area where such a temporal restriction may not be required?
Should any such seasonal restriction also apply to unexploded ordnance (UXO) detonation as well as piling activities and, if so, would it cover the same time period?</td><td></td></tr>
<tr><td>Q1 FSE 1.4</td><td>The Applicant</td><td>Temporal restrictions on piling in other made DCOs</td><td>The Applicant has reviewed the magnitude assessment for herring using the 135dB response threshold (Hawkins et al., 2014) for behavioural effects, as recommended by the MMO. This</td></tr>
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Question ID	Question addressed to	Question	Response
		The MMO in [RR-042] has recommended a licence condition prohibiting piling between 01 September and 16 October each year to protect the Banks herring stock during the spawning season. Other made Orders, for example in the Hornsea Four Order Schedule 12, Part 2, Condition 23 imposes a piling restriction between 21 August and 23 October for Work No. 3 in any year. Furthermore, the East Anglia TWO Order, Schedule 13, Part 2, Condition 29 and Schedule 14, Part 2, Condition 25 impose a seasonal restriction on pile driving and UXO detonations between 1 November and 31 January in any year. Comment on the MMO's concerns and if you do not consider a seasonal restriction on piling would be appropriate then explain the differences between the situation for the Proposed Development and the aforementioned made Orders where a temporal restriction on piling has been imposed.	assessment concluded that the original conclusion of 'low' magnitude remains valid and appropriate. Therefore, the Applicant maintains its position that piling at the Project will not result in significant population level effects to Banks herring, and consequently no additional mitigation measures in the form of seasonal piling restrictions are deemed necessary. With regards to the seasonal piling restrictions imposed for Hornsea Four, the Applicant refers to Schedule 12, Part 1, Condition 3 and Schedule 12, Part 2, Condition 23 of the Hornsea Four DCO, which impose seasonal piling restrictions for piling activities at the Hornsea Four offshore High Voltage Alternating Current (HVAC) Booster Station within the export cable corridor only. Unlike the Project, the Hornsea Four HVAC Booster Station is located in close proximity to the area of high intensity herring spawning off Flamborough Head (Figures 3.9, 3.11 and 3.21 in Orsted, 2021), with predictive noise modelling for Hornsea Four showing a partial overlap of the 186dB cumulative Sound Exposure Level (SELcum) threshold with the higher density areas. The noise modelling for the Project shows an overlap with areas of much lower intensity herring spawning activity; as such, there is no equivalence between the potential impacts from the Project on the herring stock with that for which Hornsea Four has a temporal restriction. It is notable that no seasonal piling restrictions are in place for piling activities within the Hornsea Four array area, which is located approximately 39 km to the north of Outer Dowsing (41 km if excluding the Offshore Restricted Build Area) and approximately 69 km to the east of Flamborough Head; by comparison the Project's array area is located approximately 96 km to the south-east of Flamborough Head. International Herring Larvae Survey (IHLS) data and modelled maximum impact ranges for piling within the Hornsea Four array area indicated a partial overlap of the lethal and recoverable injury noise contours with the eastern extent of the Banks spawning grounds, overlapping with areas of low herring spawning intensity, similar to the predicted overlap for the Project. In addition, piling noise at the Hornsea Four array area at a level that would induce TTS and behavioural changes (based on the 186dB SELcum threshold) was not predicted to overlap with areas of highest larval abundances off Flamborough Head. This is similar to the predicted impacts from piling at the Project, for which the analysis of IHLS data showed that the relative importance of the areas surrounding the Project for herring spawning is low when compared to both the spawning intensity observed off Flamborough Head and the extent of the area over which peak spawning takes place (Figures 3.9, 3.11 and 3.21; Orsted, 2021). The Applicant therefore considers that piling associated with the Project will not result in impacts greater than those predicted for piling activities within the array area at Hornsea Four, for which no piling restrictions are in place. The Applicant has also reviewed the impact assessment for fish and shellfish ecology for East Anglia TWO (ScottishPower Renewables, 2019, 2020). Owing to differences in the assessment methodology including the presentation of herring larvae heatmaps, it was not possible to compare the assessment results with those of the Project, and therefore a detailed determination of the differences between the situation for East Anglia TWO and that for the Project could not be made. However, it should be noted that the relevant herring stock for East Anglia TWO is the Downs stock, rather than the Banks stock which is the relevant one for the Project (and Hornsea Four), and as such, a comparison between these

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			two projects is less relevant. The Applicant highlights that there are also some methodological differences between the Project and Hornsea Four, although the Applicant considers an appropriate comparison was possible between these two projects.
Q1 FSE 1.5	The Applicant	**Implications of a temporal restriction on piling** Explain what the implications for construction activities and the overall construction programme would be should a seasonal restriction on piling activities (and potentially also on UXO detonation activities) be imposed as recommended by the MMO in [RR-042].	Due to uncertainties (such as weather conditions), supply chain constraints, and complexities inherent in constructing an offshore wind farm, the introduction of even small periods of piling restrictions reduces construction flexibility which can have significant implications on the overall construction programme and UK Government targets to reach 40GW of offshore wind generation by 2030. A recent report commissioned by the Department for Energy Security and Net-Zero (DESNZ) (Baringa, 2024) highlights that availability of all types of offshore wind installation vessel is a high supply chain risk. This crucial shortage in specialist vessels increases the need for flexibility during the construction period; the introduction of a piling ban can increase the number of total number of months required for construction, thereby increasing the likelihood that vessels will not, or will no longer, be available within the required construction windows resulting in delays to the delivery of the Project. The Applicant is not seeking consent for Unexploded Ordnance UXO clearance in the DCO application, as is typical for offshore wind farms. The Applicant will apply to the MMO under Part 4 of the Marine and Coastal Access Act 2009 for a marine licence to undertake UXO identification and clearance (if required) at the post-consent stage.
Q1 FSE 1.6	The Applicant and NE	**Sandeel fishing ban** A ban on sandeel fishing in the English and Scottish waters of the North Sea came into effect on 26 March 2024. **To the Applicant:** How has this ban been accounted for in your assessment of effects of the Proposed Development on sandeel populations? **To the Applicant and NE:** If it has not yet been accounted for in the Applicant's assessment, what do you consider the longer-term effects of this sandeel fishing ban on sandeel populations in the area of the Proposed Development will be?	The sandeel fishing ban will have a positive effect on sandeel populations. The Applicant has assessed a Worst Case Scenario (WCS), and as there is a lack of certainty to what extent the ban will positively affect sandeel populations, the ban on sandeel fishing has not been factored into any of the Applicant's assessments to ensure that the assessment remains precautionary. Section 10.4.5 within Chapter 10: Fish and Shellfish Ecology of the ES (APP-065) provides a qualitative description of the potential evolution of the future baseline environment on the assumption that the Project is not constructed. This description focuses on key drivers of change including climate change and commercial fishing activities. Sandeel are a critical food source for various species, including marine mammals, seabirds, and predatory fish. When prey species (such as sandeel) are removed, the balance between predator and prey populations is disrupted. A decline in available prey can lead to reduced reproductive success and survival rates for higher trophic levels, exacerbating the effects of fisheries on the broader ecosystem (Huse *et al.*, 2002). Overfishing can also impact the wider ecosystem through the removal of non-target prey species or the accidental capture of marine mammals, seabirds and other predatory species, which are vital to maintaining ecological balance (Kelleher, 2005). The ban of commercial sandeel fisheries in the English and Scottish waters of the North Sea has been implemented to aid the recovery of depleted sandeel populations in the North Sea. The ban also aims to benefit seabirds and other wildlife reliant on sandeels as a vital component of their diet. The ban is intended to bolster the broader marine ecosystem and enhance resilience among vulnerable species, particularly considering the challenges posed by climate change and warming seas (Coull *et al.*, 1998). The closure sits alongside previous management measures, such as the closure in sandeel management area 4 implemented since 2000 to mitigate cod and haddock bycatch and the negative subsequent impacts on

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			seabird food supply. These regulatory changes are likely to have implications for the future baseline in the area of the Project, potentially reshaping fishing practices, ecosystem dynamics, and species interactions. Overall, the ban of commercial sandeel fisheries in English waters is likely to have a positive effect on sandeel populations in the surrounding areas, potentially contributing to a further increase in stock biomass.

1.9Good Design

Table 1.9: Good Design

Question ID	Question addressed to	Question	Response
Good Design			
Q1 DES 1.1	The Applicant	**Progress of the design process post-submission** The Applicant's Design Approach Document [APP-292] sets out that following the submission of the application for a Development Consent Order, the following design-based tasks would continue: ▪ The next Local Design Group meeting would be held in the summer of 2024; ▪ The Applicant's winter photography campaign would be completed; and ▪ Substation visuals would be prepared. Provide an update on the progress achieved under each of these bullet points and include any further visual material which would assist the Examination.	**Substation Community Liaison Group and Local Design Panel meeting (July 2024)** A Substation Community Liaison Group Meeting was held in July 2024, after submission of the DCO application. Previous meetings were held in December 2022, February, April, August and October 2023 and January 2024. As well as providing attendees with project updates, the meeting included a session on the design review process, which included attendance from the Design Review Panel (DRP), who had been appointed to provide external feedback on the onshore substation design. The session covered the process of design review, onshore substation technology options, planting proposals and feedback from the external review undertaken by DRP (this is further outlined in answer to Q1 DES 1.2 below). **Winter photography campaign and substation visuals** Winter photography of the representative viewpoints was undertaken in January 2024. Winter visualisations have not been requested by the statutory consultees and the winter photography has been undertaken, primarily to inform future colour assessments that may be required, with reference to the Landscape Institute's 'Environmental Colour Assessment: Technical Information Note 04/2018' which, at paragraph 4.9, advises that this type of assessment be conducted in the winter months. Guidance is presented in GLVIA 3 at paragraph 6.28 and in the Landscape Institute's 'Visual Representation of Development Proposals: Technical Note 06/19', highlighting that the competent authority may request both winter and summer visualisations where the screening effect of deciduous vegetation means key views are available in the winter months but not the summer months. In respect of the study area around the onshore substation, the openness of the landscape resulting from the lack of hedgerows and trees means that key views are open all year round and existing vegetation in leaf has a very limited influence on the predicted visibility of the onshore substation. Furthermore, the locations of the viewpoints used in the LVIA [APP-083] were selected to ensure the fullest available visibility of the onshore substation, which meant selecting points where there was no or little obstruction due to existing vegetation. The result of this approach is that the winter photography will not reveal any notable increase in the extent to which the onshore substation would be visible,

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			compared to the summer photography. Taking all these factors into consideration, it has been decided that the production of further visualisations would not be necessary.
Q1 DES 1.2	The Applicant	**External Design Review** The Applicant's Design Approach Document [APP-292] also commits to an independent External Design Review of the onshore substation from Q2 of 2024. The Applicant is invited to share the findings of and feedback from this process with the Examination.	The Applicant appointed the DRP in June 2024, to undertake an external review of the onshore substation design proposals. The panel was made up of a range of built environment professionals from across the country. They comprised a town planner, two architects and two landscape architects. In June 2024, the Applicant held a design review session with DRP, which involved a site visit to a selection of the LVIA viewpoints around the onshore substation, followed by a workshop session to discuss issues relating to the onshore substation design more fully. Feedback from that session was presented to the Substation Community Liaison Group Meeting held in July 2024. The summary of feedback given is presented in the meeting minutes and presentation (Appendix 1.9 Q1 DES 1.2). In summary this feedback was: • Appreciation of being involved at an early stage in the design process; • Commended the Applicant on consultation and engagement on this topic; • Good site analysis and understanding of local landscape; • Mitigation proposed would mitigate the visual impact; • Encouragement to explore further landscaping options; and • Exploring further synergies with the local landscape.
Q1 DES 1.3	The Applicant	**Design Principles, key aspects** The Design Principles Statement [APP-293] establishes a series of key design aspects which in turn describe options, or design choices, to be made for: ▪ The design of the roof form; ▪ cladding material(s); ▪ cladding colour; and ▪ finishes for external fittings including doors, rainwater goods and external ironmongery. Explain in detail the factors which prevent the Applicant from developing design options for each of these aspects as part of a design process which is closely aligned to the design principles at this stage.	Developing a detailed design will be undertaken post-consent when there is greater certainty regarding the chosen technology option and how this will influence design options. Design options can only be developed in detail once a decision has been made between the Air Insulated Switchgear (AIS) and Gas Insulated Switchgear (GIS) options for the onshore substation (OnSS). The GIS option is defined by a larger number of more imposing larger sized buildings. The AIS option is characterised by a more extensive footprint, reduced buildings, building height, and low-lying unenclosed electrical infrastructure. This means the GIS option will require greater consideration in terms of the design of a larger increased building mass, including elements such as roof design, choice of cladding material, and application of colour. The GIS footprint is approximately greater than half the area of the AIS footprint, and, therefore, with this option, there will be a notable increase in the available space around the onshore substation with reduced visual impact. The Design Principles Statement (DPS) (APP-293) includes a Roadmap to how the Project Design Principles will be adhered to throughout the detailed design phases through to design implementation. The DPS is secured within the DCO and outlines the design principles that will be adhered to when undertaking OnSS detailed design. Updates to the DPS will be made if/ where considered required throughout the examination. The final design must be in accordance with the DPS, with the final design being subject to approval by the relevant planning authority (in consultation with Lincolnshire County Council) in accordance with the DCO Requirement 9 prior to the commencement of the construction works.

Question ID	Question addressed to	Question	Response
Q1 DES 1.4	The Applicant	**Effectiveness of mitigation** In the absence of a developed scheme design proposal for the onshore substation how can Interested Parties (IPs) and the Examining Authority (ExA) be confident that the Applicant's approach to mitigation of the adverse effects of the onshore substation in the wider landscape would be effective?	The standard approach applied in the design of Nationally Significant Infrastructure Projects (NSIPs) is to develop a detailed design post-consent when there is greater certainty regarding the project's final design. Design flexibility is therefore required at this stage to ensure renewable energy projects are delivered in accordance with government targets. The Applicant has retained flexibility regarding the use of GIS or AIS technology for the onshore substation, which is in line with the Rochdale Envelope approach. The LVIA, therefore, considers the worst-case scenario, which combines 1) the larger AIS footprint, inclusive of 2) the larger GIS buildings. Following the selection of GIS or AIS post-consent, mitigation planting proposals will be refined to reflect the final layout. It will be developed in line with the design review process, as set out in the Design Approach Document (DAD) (APP-292, 8.18) and the DPS (APP-293). The key component in the mitigation of landscape and visual effects associated with the onshore substation will be the proposed mitigation planting located around the onshore substation. The priority in developing mitigation planting proposals is to create an effective screen that will mitigate against significant effects in the shortest practicable timeframe. This will be achieved by implementing the principles set out in Section 2.5 of the Outline Landscape and Ecological Management Strategy (OLEMS) and the proposed planting illustrated in Figure 28.15 of the LVIA Figures [APP-124]. The planting has been designed to encapsulate the onshore substation within an outer and inner planting framework. The outer framework will form a screen of planting close to the residential properties, road-users and walkers in this local landscape. The planting will mitigate significant effects within a maximum of 15 years or potentially 5 to 10 years. The visualisations produced for DCO submission [APP-125 to APP-136] illustrate the predicted planting growth within the first 15 years of operation, demonstrating the extent to which the planting will screen the onshore substation. The mitigation planting has been designed as linear features along roadsides and field boundaries to minimise the land taken with respect to agricultural fields and to ensure that the openness of the agricultural landscape is retained albeit with a degree of enclosure around the edges. The information presented in the OLEMS combined with the DCO Requirements 10 and 11 to deliver on the commitment to the proposed planting will ensure the effectiveness of the mitigation proposals in terms of reducing significant landscape and visual effects to not significant within a maximum of 15 years.
Q1 DES 1.5	Lincolnshire County Council East Lindsey District Council, Boston Borough Council, South Holland District Council	**Effectiveness of mitigation** Is the local authority satisfied that the Applicant's approach to mitigating the adverse effects of the onshore substation in the wider landscape would be effective. If not, what further design opportunities should the Applicant explore in order to achieve the best possible design outcome for the onshore substation? Other IPs are also invited to respond to this question, if they wish to contribute to this topic.	
Q1 DES 1.6	The Applicant	**The Planning Inspectorate's Advice on Good Design for Nationally Significant Infrastructure Projects (NSIPs)** The ExA notes the recent publication of the Planning Inspectorate's guidance entitled Nationally Significant Infrastructure Projects: Advice on Good Design.	Good design has been at the forefront of decision-making throughout the evolution of the Project, strongly influencing site selection and the design commitments and principles that the Applicant has been able to implement for the DCO application. The DAD (APP-292) summarises the key processes, consideration of design solutions and decisions made

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		While it is mindful that the publication of this advice comes some months after the Applicant's submission, the ExA would nevertheless welcome the Applicant's view on how its design processes and proposals for the Proposed Development align with this advice. In addition, the Applicant is asked to set out where its current proposals and design processes differ from those established by the Advice on Good Design for NSIPs and to set out how the Applicant can align its design proposals and processes more closely with this advice during the Examination.	to date that have informed the design principles and commitments, including how these will be implemented through to detailed design. The Applicant considers that its current approach aligns with the recommended approach set out in Advice Note 15. The Applicant has considered the requirements and recommendations for 'good design' as set out in the NPS referenced within Advice Note 15 as set out in the Policy Compliance Document (AS-012). The Applicant has adopted a holistic approach as detailed in Chapter 4 of the ES Site Selection and Alternatives (APP-059), which considers onshore and offshore design elements, relationships to other aspects of the design and the consultation responses received during pre-application consultation. Good design considerations and consultation have been at the forefront of design-making throughout, influencing site selection and design commitments. As the Advice Note recommends, the Applicant has produced a DAD (APP-292) outlining the fundamental design principles of Climate, People, Places and Value, the four design principles for National Infrastructure set out by the National Infrastructure Commission (NIC). The Applicant has also undertaken and continues to engage with external design reviews. In line with the NIC Design Principles, referenced within Advice Note 15, the Applicant has appointed David Few in the role of Design Champion for the Project, accountable for delivering coherent good design.

1.10 Habitats and Onshore Ecology, including Onshore Ornithology

Table 1.10: Habitats and Onshore Ecology, including Onshore Ornithology

Question ID	Question addressed to	Question	Response
Habitats and Onshore Ecology, including Onshore Ornithology			
Q1 HOE 1.1	The Applicant	**Sea Bank Clay Pits Site of Special Scientific Interest (SSSI)** Appendix H1 of Natural England's (NE) Written Representation [REP1-062] welcomes the Water Quality Management and Mitigation Plan (WQMMP) within the Outline Code of Construction Practice (OCoCP) [PD1-039]. However, concerns are raised by NE regarding the lack of specific mitigation measures. Whilst the ExA acknowledges that further details would be provided prior to construction, please provide further information regarding mitigation to demonstrate that it could be implemented.	As outlined in the Outline Code of Construction Practice (OCoCP) (document 8.1 version 3) a WQMMP will be submitted prior to construction which will set out the methods to monitor and control changes to the quality and quantity of groundwater and surface water which could be impacted during the construction phase of the Project. The Groundwater Risk Assessment (GWRA) [APP-210] concluded the impact on the local groundwater regime at Sea Bank Clay Pits SSSI is considered to be minor. Monitoring and mitigation measures are outlined within Section 24.7.4 of the GWRA [APP-210]. It is recommended that monitoring of Sea Bank Clay Pits SSSI is undertaken throughout the construction period for landfall and the initial onshore ECC phase from landfall. In the highly unlikely event that a notable drop in water levels or flows is recorded at the SSSI, any dewatering activity at landfall would be ceased until appropriate assessment of impact or suitable mitigation can be put into place.

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Q1 HOE 1.2	The Applicant	**Species Licencing – otter and badger** With reference to Appendix H1 of NE's Written Representation [REP1-062], please provide further justification for the approach taken. In particular, to provide confidence that effective mitigation will be implemented, if required	Outline mitigation strategies to prevent offences in relation to otter are presented in Section 3.7.8 and Annex A.4 of the Outline Landscape and Ecology Mitigation Strategy (PD1-057). These include employment of an ECoW, pre-commencement surveys, sensitive scheduling of work, minimising noise and control of lighting, localised reduction of traffic speeds to 10mph, the immediate re-instatement of habitats, as well as the installation of visual and acoustic screening during potentially disturbing activities at two sensitive locations. With this collective mitigation in place, disturbance levels are effectively minimised, rendering it unnecessary to apply for a A45 licence, as no disturbance offence is predicted. Outline mitigation strategies to prevent offences in relation to badger are presented in Section 3.7.7 and Annex B (section A.6.4) of the Outline Landscape and Ecology Mitigation Strategy (PD1-057). Annex B provides the results of the most recent badger survey (dated July 2024). In summary, mitigation measures include exclusion zones around setts, the protection of individual badgers (e.g. through the installation of escape planking in deep trenches) and acoustic and visual screening at three locations. Annex B concluded that with appropriate mitigation in place, no impacts on badger are predicted and therefore a letter of no impediment would not be necessary. Section 3.5 states that *"The results of the pre-commencement surveys would be used to identify whether any updates to the measures proposed in Sections 3.6 – 3.9 or additional mitigation measures are required and the EMP would be updated to reflect the survey results, as required*." The ECoW would analyse the pre-commencement survey results and work closely with the principal contractor to understand whether an offence under the Wildlife and Countryside Act 1981 would be possible. If the ECoW considers that an offence under the Wildlife and Countryside Act 1981 could occur, the appropriate licence would be applied for at that time. Further, Section 3.7.7.1 of the OLEMS (PD1-057) commits the Project to undertake pre-commencement surveys to provide up-to-date survey information to guide the production of Reasonable Avoidance Measures (RAMS) to be included in the Ecological Management Plan (EMP). Pre-construction survey would include territorial analysis using the bait-marking method in the event that a main sett is identified as likely to be impacted. All of these measures, which are secured through Requirement 12 of the DCO, provide effective mitigation of potential effects on otter and badger, and should provide the ExA with confidence that effective mitigation will be implemented, if required.
Q1 HOE 1.3	Lincolnshire County Council (LCC)	**Greater Lincolnshire Local Nature Recovery Strategy (LNRS)** • What are the timescales for the preparation of the LRNS? Is it likely to be available during the Examination?	
Q1 HOE 1.4	The Applicant	**Biodiversity Net Gain (BNG)** ▪ Is the project committed to delivering BNG? If so, how is this secured? If not, why not?	The Applicant is committed to and is actively pursuing opportunities for Biodiversity Net Gain as set out in the Biodiversity Net Gain Assessment Report (AS-014) submitted to the ExA in August 2024 which outlines the Applicant's ambitions for biodiversity net gain. It has made this commitment in response to relevant policy in the National Policy Statement

Question ID	Question addressed to	Question	Response
		▪ Please provide an update on the identification of potential opportunities to deliver BNG. ▪ Confirm if opportunities off-site are being sought in the event that on-site BNG cannot be delivered. Paragraph 105 of the BNG Project Principles and Approach document [APP-302] states that this would be the case but this appears to be contradicted by paragraph 52 of the Outline Landscape and Ecological Management Strategy (OLEMS) [PD1-054]. Do these documents need to be revised to ensure consistency? ▪ If off-site BNG can be delivered, can the project commit to a specified level of BNG to be achieved? ▪ With reference to paragraph 107 of the BNG Project Principles and Approach document [APP-302], confirm if the project would qualify for purchase of statutory credits.	('NPS'), recognising that there is currently no legal obligation for NSIPs to deliver a specific percentage of biodiversity net gain as the provisions of the Environment Act 2021 relating to biodiversity net gain for NSIPs have not yet come into force and are not expected to until at least November 2025. The current policy in relation to biodiversity net gain for NSIPs is set out in NPS EN-1 in part 4.6. Paragraph 4.6.1 of NPS EN-1 explains that environmental net gain is an approach to development that aims to leave the natural environment in a measurably better state than beforehand and notes that Projects should consider whether there are opportunities for enhancements. Paragraph 4.6.6 of NPS EN-1 requires NSIPs to seek opportunities to contribute to and enhance the natural environment by providing net gains for biodiversity, and the wider environment where possible. Paragraph 4.6.11 of NPS EN-1 is clear that biodiversity net gain can be delivered onsite or wholly or partially off-site. The Applicant has explored the opportunities available for biodiversity net gain within the Order Limits (i.e. onsite), and has designed in as much net gain as it is able to. The onsite net gain measures are *focussed around the landscape planting at the OnSS, and include the planting of:* *Woodland blocks,* *Hedgerow,* *Wildflower meadow, along with ditch creation* These measures are all set out in the OLEMS (PD1-054) on which a Landscape Management Plan and Ecological Management Plan must be based (both of which must be submitted to the relevant planning authority for approval prior to commencement of any stage of the onshore works under requirements 10 (Provision of landscaping) and 12 (Ecological management plan) of the draft DCO (document 3.1, version 5) respectively). As such, the measures committed to in the OLEMS are secured in the draft DCO. In addition, the Applicant is exploring opportunities for offsite biodiversity net gain and is engaging with local landowners and stakeholders in order to progress these. This includes the Royal Society for the Protection of Birds (RSPB), which is working on the Greater Frampton Vision Project, which seeks to deliver landscape-scale habitat restoration over multiple landholdings. The Greater Frampton Vision Project is a Round 1 Landscape Recovery Project to be funded by Natural England and managed by RSPB. RSPB are working alongside Outer Dowsing to explore opportunities to purchase off-site units. These continuing discussions provide the applicant with resilience in the event that any one of these active opportunities are not able to progress for any reason. A final decision on the appropriate mix of on-site and off-site BNG will be made as part of the post-examination detailed design stage, when gains and losses of habitat can be accurately measured to the actual project footprint. This commitment to explore off-site opportunities to deliver BNG is consistent with BNG Principles document [APP-302, para 105].

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			Paragraph 52 of the OLEMS is correct in referring to "on-site mitigation, compensation and enhancement" in relation to project impacts to both habitats and species; as identified in the Ecological Impact Assessment. This is distinct from BNG opportunities that are under consideration, which include habitat enhancements specifically for BNG, as referenced in the BNG Project Principles and Approach document [APP-302, para 105]. BNG good practice guidance is clear that BNG commitments must be additional to existing legal and policy requirements, such as those identified through the EIA process [CIEEM-CIRIA-IEMA (2016) Good Practice Principles for Development, Principle 7 – 'Be additional']. NPS EN-1 is also clear that biodiversity net gain should be applied after compliance with the mitigation hierarchy and does not change or replace existing environmental obligations (paragraph 4.6.10). The Applicant is committed to delivering a biodiversity net gain and demonstrating this transparently using a recognised biodiversity metric, i.e. the Statutory Biodiversity Metric, published by DEFRA/NE. The Project is an NSIP and cannot commit to delivering all aspects of the Biodiversity Gain policy as designed for local planning applications and set out in the Environment Act 2021 and associated secondary legislation and guidance. The BNG requirements for NSIPs, including requirements for percentage gain above baseline conditions, will be set out in new guidance and regulations expected in November 2025. A commitment to 10% BNG is inappropriate for a project such as ODOW due to the design stage of the project at the consents stage, which considers a 'maximum design scenario'. The BNG Project Principles and Approach document [APP-302] sets out that a final 'design stage' BNG Report will be undertaken post-consent and after refinement of the design. However, the project is committed to delivering a measurable gain above the baseline and this will be secured through a combination of on-site and off-site commitments. In the context of the legal and policy framework summarised above, there is no proper justification for requiring the Applicant to commit to a specific level or percentage of BNG. In accordance with current national policy, the Applicant is committed to providing net gains for biodiversity, and the wider environment where possible. That is reflected in Natural England's confirmation to the Applicant that Statutory Credits are not available to NSIPs. Case reference number CSC-1900-M3J (25/07/2024) "In relation to your enquiry, The Environment Act 2021 includes Nationally Significant Infrastructure Projects (NSIPs) in the requirement for BNG. The biodiversity gain objective for NSIPs is defined as at least a 10% increase in the pre-development biodiversity value of the on-site habitat. However, unlike for TCPA schemes, this is not yet a legal requirement. Consequently, NSIPs cannot as yet buy Statutory Credits for BNG purposes."
Q1 HOE 1.5	The Applicant	**Green corridors and connecting people with the environment** Can the Applicant please elaborate on its position on accordance with NPS EN-5 paragraph 2.5.1 [PD1-071]? Specifically, please identify the important habitats that will be reconnected with hedgerow and woodland planting. Furthermore, what opportunities have been sought to connect people to the environment, for	The Applicant notes that paragraph 2.5.1 of NPS EN-5 states that '*the linear nature of electricity networks infrastructure can allow for excellent opportunities to* *i. Reconnect important habitats via green corridors, biodiversity stepping zones and reestablishment of appropriate hedgerows; and/or* *ii. Connect people to the environment for instance via footpaths and cycleways constructed in tandem with environmental enhancements*

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		instance via footpaths and cycleways constructed in tandem with environmental enhancements?	The proposed hedgerow and woodland planting around the onshore substation will connect new planting to existing hedgerows and tree cover in the area, thereby improving green corridors. The Applicant is not proposing to construct footpaths or cycleways in tandem with environmental enhancements.
Q1 HOE 1.6	Lincolnshire Wildlife Trust	**Onshore cable routing and grid infrastructure** Please elaborate on concerns raised in Relevant Representation [RR-036] regarding onshore cable routing and grid infrastructure.	
Q1 HOE 1.7	The Applicant	**Outline Decommissioning Plan** Paragraph 439 of Chapter 21 of the Environmental Statement (ES) [APP-076] refers to a decommissioning plan being prepared in accordance with the outline decommissioning plan submitted with the dDCO [AS1-024]. However, no outline plan has been submitted and R24 (onshore decommissioning) in the dDCO does not refer to an outline version that the decommissioning plan that should accord with. Applicant to confirm if an outline decommissioning plan will be made available.	The reference to a decommissioning plan in Paragraph 439 of Chapter 21 of the Environmental Statement (ES) [APP-076] is an error. There are no current plans to submit such a document. The impact assessment and implementation of associated mitigation measures is not dependent on such a document being produced.
Q1 HOE 1.8	LCC	**Ecological Steering Group, Environment Compliance Officer and Ecology Enhancement Fund** LCC's Local Impact Report (LIR) [REP1-053] requests the establishment of an Ecological Steering Group along with the appointment of an Environment Compliance Officer (funded via a S106 agreement) and the establishment of an Ecology Enhancement Fund. ▪ Please provide further comments on the role of the Environment Compliance Officer, having regard to the role of Ecological Clerk of Works as proposed by the Applicant. ▪ Clarify if LCC proposes that the Ecology Enhancement Fund would form part of the requested S106. How would such a fund relate to BNG? ▪ Please outline how the proposed S106 would meet the necessary legal tests	
Q1 HOE 1.9	The Applicant	**Environmental Management System (EnMS), Ecological Management Plan and Environmental Management Plan.** An EnMS and an Ecological Management Plan are proposed in documents, including the Schedule of Mitigation [PD1-058]. ▪ Please provide further details of the inter-relationship between these documents in relation to their role and function. ▪ It is noted that Chapter 22 of the ES [APP-077] refers to both Ecological Management Plans and Environmental Management Plans. Are they separate documents or are they intended to be the same? The Schedule of Mitigation [PD1-058] does not appear to identify the production of an Environmental Management Plan to address onshore ornithology.	The Ecological Management Plan (EMP) will be submitted under Requirement 12 of the DCO. Within Chapter 22 of the ES (APP-077) reference is made to an Environmental Management Plan. This reference was made in error and should instead have been referred to as the Ecological Management Plan (EMP) where this relates specifically to ecological mitigation measures. Reference to the Environmental Management System or Plan made in the Schedule of Mitigation (PD1-058), Chapter 21 of the ES (APP-076), Chapter 22 of the ES (APP-077) and the OLEMS (PD1-054), which mentions pollution, prevention and control methods, should be correctly identified as the Outline Code of Construction Practice (APP-268).

Question ID	Question addressed to	Question	Response
			No document titled Environmental Management Plan or Environmental Management System has been or will be produced for the DCO and the Applicant apologises for the confusion in use of terminology.
Q1 HOE 1.10	The Applicant Natural England East Lindsey District Council Boston Borough Council South Holland District Council	**The Management of Hedgerows (England) Regulations 2024** The Hedgerow Regulations (1997) are referenced in Chapter 21 of the ES [APP-076]. The Management of Hedgerows (England) Regulations 2024 came into force in May 2024. Do they have any implications for the project and the assessment of effects contained in the ES?	The Applicant has considered the Management of Hedgerows (England) Regulations 2024 which, in relation to hedgerows defined in the Regulation, prohibit cutting and trimming in certain months and imposes other management requirements. Chapter 21 of the Applicant's Environmental Statement (Onshore Ecology, APP-076) assesses the range of hedgerows within the Order Limit, including those now defined as "important" under the 2024 Regulations. As set out in APP-191 (which identifies the "important" hedgerows defined under the Hedgerows Regulations 1997) "*native hedgerows, irrespective of whether they meet the definition of 'important' within the Hedgerow Regulations 1997, are categorised as Section 41 habitats of principal importance in England and protected under Section 40 of the Natural Environment and Rural Communities Act 2006"*. The steps taken by the Applicant to reducing loss of hedgerows generally is set out in response to Q1 LV 1.4. Regarding the prohibition of the cutting and trimming of Important Hedgerows in certain months, the Applicant notes that this regulation is not applicable to the circumstance of cutting and trimming on land by virtue of, or in connection with, any statutory activity and is reasonably necessary for that purpose. A "statutory activity" is an activity undertaken under or by virtue of an enactment (including any authorisation granted under any enactment). Any relevant cutting or trimming by the Applicant would only be carried out to the extent reasonably necessary by virtue of, or in connection with, its Development Consent Order if made. Regarding the management requirements set out in Regulation 5 of the 2024 Regulations which require the establishment and maintenance of green cover in the specified area in the immediate proximity of an important hedgerow, the Applicant is aware of one section of the cable corridor in which, due to environmental and technical constraints, the Applicants temporary works area will require to extend into an area within 2 metres of the centre of an Important Hedgerow as defined by the 2024 Regulations in order to erect a protective fence in close proximity to the hedgerow and carry out the pre-requisite vegetation clearance. The clearance required and subsequent reinstatement of green cover will both be carried out in line with (i) the Applicant's Code of Construction Practice ("**CoCP**") secured under Requirement 18 of the dDCO (Document 3.1) which must accord with the Outline CoCP (PD1-038) and (ii) the Applicant's Ecological Management Plan secured under Requirement 12 of the dDCO (Document 3.1) which must accord with the Applicant's Outline Landscape and Ecological Management Strategy (AS1-103). In light of the 2024 Regulations, the Applicant is considering the updates to the dDCO required to ensure the permissibility of the above.

Question ID	Question addressed to	Question	Response
			Finally, in relation to the onshore substation site, the Applicant intends to build up the amount of hedgerow around the site's perimeter which may involve the planting of new hedgerow within the 2-metre buffer strip around the existing hedgerow, which is "Important" under the 2024 Hedgerow Regulations. The Applicant is currently considering the implications of doing so under the 2024 Hedgerows Regulations and any updates to the dDCO required as a result.
Q1 HOE 1.11	The Applicant	**Compensatory habitat for skylark and yellow wagtail** Chapter 22 of the ES [APP-077], paragraph 172 of the OLEMS [PD1-054] and the Schedule of Mitigation [PD1-058] refer to the need to explore opportunities to utilise severed land to provide compensatory habitat for skylark and yellow wagtail in sections of fields adjacent to, or near to the Order Limits, subject to agreements with landowners. This appears to contradict paragraph 52 of the OLEMS which states that *"…avoidance, mitigation, compensation and enhancement measures (as defined in the ES and Sections 3.3 to 3.8), will be restricted to the areas within the Order Limits."* ▪ Confirm if measures outside of the Order limits are likely to be taken forward. If so, how are ▪ they secured in the dDCO? ▪ Provide an update on any agreements with landowners. ▪ How will compensation be provided if landowner agreement is not forthcoming?	The Applicant is continuing to explore opportunities to utilise severed land either by leaving the severed land fallow or with a cover crop to be suitable for skylark or wagtail. To date the Applicant's initial assessment of potential severed land has been undertaken and is shown in Chapter 22 of the ES [APP-077], the Applicant will continue to liaise with landowners to finalise the assessment of severed land and agree a severed land management plan as defined in the oCOCP. It is highly unlikely that the area of severed land will be reduced in size however this cannot be confirmed until the detailed design is available closer to the construction period so that cropping rotations are known and severance can be properly assessed. The mitigation on severed land is not included in the Order Limits and therefore not secured in the dDCO however the Applicant has agreed voluntary Heads of Terms with 94% of landowners along the ECC route and these agreements contain provisions for severed land. The Applicant is therefore confident that the mitigation measures are secured and can be implemented
Q1 HOE 1.12	The Applicant	**Boston Alternative Energy facility compensation site** Provide an update on the delivery of the Wyberton Roads South compensation site where works were expected to be completed in the Summer of 2024 (ES Chapter 22 ES, paragraph 98) [APP077]. Is completion still due in advance of, or during, the construction phase for the Project?	The Applicant understands that the Wyberton Roads South compensation site will be delivered in advance of the Applicants construction phase. The Applicant most recently met with Boston Alternative Energy Facility (BAEF) on 22nd July 2024 where they indicated approximate timeline of implementing in 2025/26 to be in place by 2027. The Applicant will continue to liaise with BAEF to ensure synergies between the two parties.
Q1 HOE 1.13	The Applicant	**Set-backs** Paragraph 144 of the OLEMS [PD1-054] identifies that the landfall construction area will be set back a minimum of 80m from the Anderby Marsh Lincolnshire Wildlife Trust (LWT) Reserve to minimise disturbance. Table 22.8 of Chapter 22 of the ES [APP-077] also lists this mitigation measure but also refers to the Wolla Bank Reedbed LWT Reserve in the project phase. Should the OLEMS and mitigation specified in Table 22.8 also refer to a set-back distance for Wolla Bank Reedbed LWT Reserve? If not, why not?	It is assumed that the reference to Paragraph 144 of the OLEMS (PD1-054) relates to Paragraph 148, which refers to the set-back distance of 80m from Anderby Marsh Reserve. Table 22.8 of Chapter 22 [APP-077] should refer to Wolla Bank Reedbed LWT Reserve, specifically the inclusion of the 4m high earth bund, which acts as a screen between the reserve and the landfall construction compound. The set-back distance relates to Anderby Marsh LWT Reserve only, as the Wolla Bank Reedbed LWT Reserve is located approximately 200m to the south-east of the landfall construction compound, which is further away than Anderby Marsh, and can be readily protected by the earth bund mitigation. The OLEMS will be amended to refer to both reserves regarding the earth bund mitigation measure. The updated OLEMS will be submitted at Deadline 3.
Q1 HOE 1.14	The Applicant LCC	**Monitoring, aftercare and compliance audits**	

Question ID	Question addressed to	Question	Response
	East Lindsey District Council Boston Borough Council South Holland District Council	Section 3.9 of the OLEMS [PD1-054] provides some information in relation to monitoring with a commitment to provide further detail in the Ecological Management Plan (EMP) and Landscape Management Plan (LMP). ▪ Do the local authorities have any specific comments to make in relation to proposals and the level of information provided in outline? **For the Applicant:** ▪ Please provide further details of monitoring likely to be included in the EMP and LMP, including frequencies and Key Performance Indicators. ▪ Provide further details on the proposals in the OLEMS (paragraph 79) to appoint an "*appropriate external body*" with the specific task of undertaking compliance audits. ▪ Can the Applicant clarify the proposed future level of engagement with Lincolnshire County Council, the relevant Local Planning Authorities or any other stakeholders in relation to monitoring and compliance? ▪ Should the OLEMS commit to monitoring at the OnSS for the duration of the operational period rather than for a minimum of 30 years? If not, why not? ▪ Please provide further justification for the aftercare period for reinstated habitats of up to five years.	2. The Landscape Management Plan and the Ecological Management Plan will set out detailed methodologies and practices for future monitoring and management within the Order Limits and will be developed once the final detailed project design is available. Tailoring monitoring and management practices to the detailed design will ensure they are they are efficient, effective and fit for purpose. 3. During the Construction phase ecological compliance monitoring will be undertaken by the ECoW and will be recorded in the daily logs. Monitoring will likely include pre-commencement surveys, such as update walkovers for badgers, nesting bird checks, destructive search of potential refugia, and other measures as may be required by protected species licences. The establishment of habitat creation / landscape planting will also be monitored during the construction phase and will include checking ground preparation works have been successfully implemented, planting stock is as specified in terms of species, size and quality and that the process of planting is undertaken to a high standard and in appropriate conditions. During the operational phase, monitoring will likely include regular checks to assess whether habitat creation has been successful and to inform ongoing management. Such monitoring will be set out in detail in the LMP, which will include detailed schedules for monitoring and management tasks. KPIs for landscaped areas will include checks on soil health, competition from weeds and the effectiveness of weed suppression measures, and plant health and rates of growth. During the first five years, checks will identify plants that are dead, dying and /or diseased and will inform the process of replacement planting. Where specific mitigation is required under protected species licences, details will be provided within the licence method statement or similar. Monitoring for protected species could extend for up to 5 years following construction depending on the species and level of impact. Reference to the additional commitments above will be provide within the updated OLEMS to be submitted at Deadline 3. 4. In addition to the monitoring undertaken by the ECoW, the Applicant would appoint an appropriate external body with the specific task of undertaking compliance audits. The compliance audits shall include identified Key Performance Indicators (KPIs) for each identified ecological feature. The KPIs would be agreed as part of the agreed EMP. The Applicant will invite representatives from appropriate stakeholders to form an external review group to perform the function of compliance audits. This invitation would be extended to stakeholders including those from the Environment Agency, Natural England, IDBs, Lincolnshire County Council and the relevant Local Planning Authorities. 5. The Applicant is committed to ongoing engagement with Lincolnshire County Council, the relevant Local Planning Authorities, other key stakeholders throughout the construction and operational stage, the frequency of which will be agreed between the appropriate parties.

Question ID	Question addressed to	Question	Response
			6. The OLEMS will be updated to refer to the operational period, an updated OLEMS will be submitted at Deadline 3. 7. Paragraph 226 of the OLEMS states that Reinstated habitats will be subject to an aftercare period of up to five years following reinstatement, to be extended (if required) if reinstatement is not deemed to have been successful. Therefore, the aftercare period is not limited to 5 years. However, within 5 years, weed control and replenishment of failed planting stock has usually enabled tree and hedgerow planting to establish to the point that these habitats are self-sustaining and can withstand standard (farming) practices.
Q1 HOE 1.15	The Applicant	**Biodiversity Management Strategy** The Policy Compliance Document [AS-012] states that the OLEMS [PD1-054] serves as the Biodiversity Management Strategy as envisaged by NPS EN-1. Please provide further clarification of how the OLEMS serves this function with particular regard to the need for it to make *"provision for biodiversity awareness training to employees and contractors so as to avoid unnecessary adverse impacts on biodiversity during the construction and operation stages."*	The Applicant references Biosecurity Measures in Section 3.4 of the OLEMS and references the provision of toolbox talks in relation to great crested newt. An updated version of the OLEMS will be submitted at Deadline 3 to include a commitment to biodiversity awareness training. The provision of biodiversity awareness measures will be later developed in the Ecology Management Plan and Landscape Management Plan to include training for employees and contractors to ensure unnecessary impacts on biodiversity are avoided during the construction and operational stages. Information relating to all biodiversity awareness training will also be cross-referenced within the updated CoCP. Biodiversity awareness training will include induction packs and toolbox talks for construction site staff.
Q1 HOE 1.16	The Applicant	**Arable Field Margins** Paragraph 233 of the OLEMS states that "*opportunities for the creation and enhancement of arable field margins will be developed in the detailed design set out in the EMP. Information regarding the type of field margins that could be sown "are available from Natural England (website)".* Please provide further details regarding the type of field margins that could be sown and how a commitment to this is secured.	The Applicant has engaged with land owners in respect of the feasibility of creation or enhancement of field margins. The Applicant notes that the conclusion of these discussions were : There are very few existing field margins within Lincolnshire The creation of new field margins would reduce the growing area available The creation of field margins would affect the existing landscape character. The Applicant has updated the OLEMS accordingly to remove this provision. An updated OLEMS will be submitted at Deadline 3.

1.11 Habitats Regulations Assessment (HRA)

Table 1.11: Habitats Regulations Assessment (HRA)

Question ID	Question addressed to	Question	Response
HRA General Questions			
Q1 HRA 1.1	Natural England (NE)	**Assessment of effects of highly pathogenic avian influenza**	

Question ID	Question addressed to	Question	Response
		Further to your RR [RR-045] and your Deadline 1 (D1) submission [REP1-061] set out the assessment methodology measures you would wish the Applicant to undertake in order to give consideration to the effects of highly pathogenic avian influenza within the HRA process.	
Q1 HRA 1.2	The Applicant	**Sheringham Shoal and Dudgeon Extensions Offshore Wind Farm Projects** The Order has been made for the Sheringham Shoal and Dudgeon Extensions Offshore Wind Farm (OWF) Projects on 17 April 2024. To what extent were these two projects accounted for in your HRA considerations and do any documents need updating to reflect the fact that the Order has now been made? Does the making of this Order affect any of the conclusions you have drawn in terms of in-combination effects for offshore and intertidal ornithology?	The Applicant has considered the Sheringham Shoal and Dudgeon Extension Projects (SEP and DEP) within its Report to Inform Appropriate Assessment (RIAA) (AS1-095) as appropriate. Within the RIAA (AS1-095), SEP and DEP are both considered Tier 1 Projects for the benthic subtidal and intertidal ecology and migratory fish assessments (Table 7.5 and 7.8 in the RIAA, AS1-095), Tier 4 within the mammal assessment (Table 7.6 int he RIAA, AS1-095), and Tier 1d within the offshore and intertidal ornithology assessment (Table 7.7 in the RIAA, AS1-095). The Tier definitions are provided within Tables 7.2-7.4 within the RIAA (AS1-095). With respect to all receptors, these projects have been assessed in full, in-line with the in-combination and tiering approach used for all other projects. Following the consent decision on these projects, the considered tier for marine mammals would change from Tier 4 to Tier 3 (Tier 2 + projects that have been consented [but construction has not yet commenced]), and for offshore and intertidal ornithology it would change from Tier 1d to Tier 1c (permitted applications, whether under the Planning Act 2008 or other regimes, but not yet implemented). The making of the Order for SEP and DEP, and the HRA conclusion from the Secretary of State (SoS) in each case, has not altered the predicted worst-case scenario values from those which were used within the in-combination assessment as set out within the Project's Application (AS1-095) and as such is not considered to result in any material changes to the in-combination assessment, and all conclusions drawn for the Project in-combination remain unchanged and valid. Notwithstanding, the Applicant will be undertaking an updated in-combination assessment to include revised data from projects where the status has changed since the Application was submitted (i.e. those projects which have now submitted applications or been determined), with the relevant changes for SEP and DEP being considered as necessary within that update. The Applicant notes that SEP and DEP submitted a Non Material Change request with updated parameters (draft height and rotor-swept area) and accompanying information relevant to ornithology. In their response to this on 2nd September 2024, Natural England agreed that the change requested did not alter the findings of the ES or the RIAA.
Q1 HRA 1.3	The Applicant	**Assessment of changes to other offshore wind farm projects to inform in-combination assessment** In its D1 response NE [REP1-061] has replied that you have stated that you have no intention of updating your cumulative or in-combination assessments as more up to date values from other projects become available during the course of this Examination. The ExA presumes that NE has inferred this from your response F2 on page 286 of The Applicant's Responses to Relevant Representations [PD1-071] in which it is stated that: " … *it is not in the Applicant's gift to provide data from other projects and so the Applicant has used the best available data at the point of preparing the application documents*."	Natural England's comments do not accurately reflect the Applicant's position on providing updated in-combination assessments. The Applicant's comments sought to clarify the approach it adopts to obtaining data in respect of third party projects. The Applicant fully intends to update the in-combination assessments that were presented at application to include the more up to date values from other projects which become available during the course of the Examination. As the predicted impacts from other relevant projects may change, in order to avoid repeated updates the Applicant intends to update the assessments when finalised numbers are made available from these other relevant live projects. The Applicant currently considers that the relevant NSIPs for which updates are available since submission of the Outer Dowsing DCO Application on 20th Match 2024 are: ▪ Dogger Bank South Offshore Wind Farms (DCO application submitted 12th June 2024);

Question ID	Question addressed to	Question	Response
		Do NE's comments in [REP1-061] accurately reflect your position on providing updated assessments, both cumulatively and in-combination, if updated information from other 'live' OWF projects becomes publicly available? If this is the case, then justify your position on this. If not, then explain how you intend to take account of any amended data from these other 'live' projects, that is in the public domain, and which might affect your assessment of cumulative and in-combination effects.	▪ Five Estuaries Offshore Wind Farm (DCO application submitted 25th March 2024); ▪ North Falls (DCO application submitted 26th July 2024); ▪ Rampion 2 (DCO examination closed 6th August 2024); and ▪ SEP and DEP (DCO granted 17th April 2024, Non Material Change application submitted 23rd July 2024). The Applicant is undertaking a review of this information, and any other relevant projects (e.g. non NSIPs), and will submit an update to the Examination in due course. The revised in-combination assessment will be supported by a detailed long-list of projects considered, with all existing and any other new projects or those for which a change in status has occurred and new data is available also considered as appropriate. The Applicant considers that the updated project positions for key projects (such as Rampion 2 and Dogger Bank South) will be available in time for the submission of the updated in-combination assessment at Deadline 4. In relation to cumulative effects in an EIA context, the Applicant refers to its response at Q1.GC.2.1.
Q1 HRA 1.4	The Applicant	**Siting of the proposed offshore reactive compensation platforms (ORCP)** In its D1 submission NE [REP1-061] has recommended that the ORCP not be sited in the Greater Wash SPA in order to avoid potential disturbance and displacement effects on the red-throated diver feature of this SPA. Comment on the technical and operational feasibility of NE's request	As set out in Chapter 3 Project Description (APP-058) and Chapter 4 Site Selection and Assessment of Alternatives (APP-059), the Applicant is developing the Project with HVAC technology only. Given the overall length of the export cable system from the generating station (array area) to the onshore substation, an offshore reactive power solution is required in order to enable power flow from the generating station to the onshore substation. The ORCPs were initially located 6km from landfall. Following stakeholder feedback during the pre-application process, specifically in relation to feedback from Natural England during the Evidence Plan Process as detailed in Chapter 6 Appendix 15 Evidence Plan Process (APP-149), the Applicant undertook a review of the location of the ORCPs and was able to move the location further offshore, 12km from landfall, noting the Applicant had made a commitment not to locate the ORCPs in the Inner Dowsing Race Bank and North Ridge (IDRBNR) SAC to avoid impacts to the SAC. The Applicant is unable to move the location further offshore east beyond the IDRBNR SAC (and therefore beyond the Greater Wash SPA) without compromising the ability of the project to deliver power to the onshore substation to achieve 1500MW export power. Shunt reactors are housed in the ORCPs, their purpose is to eliminate as far as possible the reactive power (non-useful power) in the export cables. Placing the ORCPs east of the Greater Wash Special Protection Area (SPA) and beyond the SAC is not a viable solution. Locating the ORCPs further offshore beyond the SAC will limit the shunt reactors ability to offset the reactive power in the cable due to the short distance between the OSSs and ORCPs meaning less capacitive reactive power is generated between the OSSs and the ORCPs, and therefore the shunt reactors within the ORCPs will not be able to fully offset the reactive power generated in the system. Excess reactive power (uncompensated)

Question ID	Question addressed to	Question	Response
			downstream of the ORCPs would reduce the capacity for power transmission due to the limitations of thermal capacity and cable rating, in turn reducing the Project's export power to an unacceptable level. The ORCPs must be built seaward of landfall and not onshore. This is because if the ORCP doesn't manage the "extra power", i.e. the reactive power in the cable, before it reaches land, the cable will overheat. The problem is worsened by the way the cable is buried underground at the landfall, which traps heat. Without the ORCPs handling this issue, the cable would become damaged and in turn degraded. Therefore, the ORCPs must be located seaward of landfall to appropriately address the reactive power in the electrical power system. The Applicant therefore concluded that the ORCPs could not be positioned so as to avoid impacts to the Greater Wash SPA. The Applicant notes that the route for the offshore ECC (within which the ORCP must be placed), was designed to avoid high densities of Red-throated diver and common scoter, and as such any positioning of the ORCP within the offshore ECC is within an area of lesser importance to the features of the site. Through consideration of technical constraints for the electrical system and the necessary location of the ORCP relative to the array area, it has been possible to locate the ORCP area within an area of the ECC which is recognised to be subject to an existing displacement effect from the Lincs Offshore Wind Farm. Consequently, the Applicant is confident that the proposed ORCP area results in the lowest possible effect to the features of the Greater Wash SPA, whilst retaining the design purpose of the ORCP.
Q1 HRA 1.5	NE	**Annex I Sandbanks Worse Case Scenario** NE is not in agreement with the Applicant on the presented Worse Case Scenario (WCS) of lasting habitat loss/change of Annex I Sandbanks from the placement of cable protection within Inner Dowsing Race Bank and North Ridge (IDRBNR) Special Area of Conservation (SAC). ▪ Please explain why you deem the WCS not to have been assessed? ▪ What does NE deem to be the WCS? What would NE request of the Applicant to address these concerns?	
Q1 HRA 1.6	NE	**Further analysis in relation to Sabellaria Spinulosa** NE [RR-045] has concerns with the sufficiency of the data in order to draw conclusions, with any confidence, as to the presence, extent and quality of Annex I biogenic reef (Sabellaria Spinulosa). The ExA notes that the Applicant has undertaken an independent re-analysis of the survey data to re-evaluate the potential for Annex I reef [PD1-095]. ▪ Does the Applicant's independent re-analysis satisfy NE's concerns with the sufficiency of the data in order to draw conclusions as to the presence, extent and quality of Annex I biogenic reef? If not, why not? Please set out the specific information that would still be required.	
Q1 HRA 1.7	NE	**Nearshore (depth of closure) area cable protection**	

Question ID	Question addressed to	Question	Response
		Noting the Applicant's response to NE in relation to securing the avoidance of cable protection in shallow nearshore areas, citing the conditions of the deemed marine licence [PD1-071 NE Ref NE2]: ▪ Are NE content with this as a measure? If not, what would NE propose?	
Q1 HRA 1.8	The Applicant	**Seagrass habitat creation/restoration for Annex I Sandbanks** Please provide an update on progress on these options following NE's advice	The Applicant did not receive further comment on the technical feasibility on this measure at Deadline 1, as stated within Natural England's recommendations to resolve issues within Table 7 of Annex D in Natural England's relevant representation (RR-045). The Applicant awaits further comment from Natural England on seagrass habitat creation/restoration. In their relevant representation, Natural England advised that this measure could only be considered as part of a package providing <10% of the required compensation and/or potential adaptive management for part delivered compensation, therefore this compensation strategy has not been prioritised. The Applicant would like to highlight that the strategic delivery of a new site designation or extension is the Applicant's preferred mechanism at this stage, should compensation be found to be required. This is also the preferred mechanism of Natural England as outlined in table 7 in Annex D of NE's Relevant Representation (RR-045).
Derogation Case and Compensation Measures			
Q1 HRA 2.1	The Applicant	**Update on the Marine Recovery Fund** The Applicant has stated, for example in the Kittiwake Compensation Plan [APP-250] and the Without Prejudice Razorbill Compensation Plan, [APP-255] and elsewhere that Round 4 projects will be able to access the Marine Recovery Fund (MRF). Furthermore, in para 57 of [APP-250] it is stated that: "*The Applicant understands that the MRF will be in place prior to the determination of the consent for the Project and therefore will be available to rely upon for the purpose of delivering compensation if required*." Provide an update on this and comment on whether your analysis of the MRF being in place within this timescale is accurate. Comment on any differences between how your proposed compensation measures would be carried out if undertaken within the context of the MRF versus being undertaken on a project-alone basis if either the MRF was not in place or you chose not to pursue that option for compensation measures.	The Applicant received an update from Defra on the 19.11.24 confirming the expectation that the MRF will be in place by Autumn 2025, however no specific date has been provided. It can therefore be expected that the MRF could be in place in prior to or around the same time as the determination of the consent for the Project. The Applicant understands that a ministerial statement and relevant guidance in relation to the delivery of strategic benthic compensation by way of SAC extension through the MRF will be issued by Defra in the very near future. The Applicant has sought an update on exact timing of the release of this material from Defra but has not received a response. Once this information is available it will be submitted into the Examination. It is expected that the ministerial statement will confirm the availability of this measure to the Applicant in the timescales required. The Applicant notes that this is the principal measure which would require government input for delivery. Updates on other benthic measures are provided in response to question Q1 HRA 2.14, but these measures would not be available through the MRF and are generally expected to be able to be delivered on a project alone basis if necessary, noting that it is expected that the strategic delivery of an SAC extension would be available and is the Applicant and Natural England's preferred measure. The other strategic measures which have been initially approved for inclusion in the library of measures under the MRF are as follows: • offshore Artificial Nesting Structures (ANS) in relation to kittiwake • predator reduction/eradication in relation to auks

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			With regard to an ANS for kittiwake, the Applicant is currently progressing project-led offshore ANS to a programme that will allow the Project to be operational assuming a condition of a three full breeding seasons before the operation of any turbine, as per Schedule 22 of the draft Development Consent Order (noting that the Applicant has submitted a Change Notification that it intends to submit a change request to shorten this requirement from three full breeding seasons to two full breeding seasons (document reference 19.15). It is understood that Dogger Bank South (DBS) intend to progress another offshore ANS. The two projects are exploring the potential for nesting space to be shared to present reciprocal resilience across the compensation measure (an Memorandum of Understanding (MoU) is currently being drafted between the two parties), therefore delivering the strategic measure and approach in line with the Kittiwake Strategic Compensation Plan KSCP, collaboratively through the installation of individual project-led ANS. If a government led strategic measure through the MRF were available to the Applicant within a suitable timeframe, then the provisions with the Development Consent Order (3.1) under Schedule 22, Part 1, 4(b) would facilitate the use of this option. However, given the operational programme that the Project is working to, and to minimise the risk of any uncertainty of the availability of such a measure under the MRF, the Project is proceeding on the basis that it will deliver an ANS on a Project alone basis as outlined above. The Applicant also notes that should such a measure become available through the MRF at a date after the implantation of a project alone ANS, then this could, if necessary, be utilised as an adaptive management measure as per paragraph 4(b), Part 1 Schedule 22. For auk species, the Applicant is progressing without prejudice compensation measures with the Plémont seabird reserve, alternative measures in the South West of England and will also incorporate provision for auks into the design for the ANS. These measures are being progressed on a project alone basis. The Applicant's position is that, using its preferred approach, the Plémont seabird reserve can deliver the requisite compensation should this be deemed necessary. Should the SoS deem that further compensation is required then this could be delivered by the alternative measures proposed in the South West of England and the ANS. As for government led kittiwake compensation, if a government led strategic measure through the MRF were available to the Applicant for auk compensation (by way of predator eradication as noted above) in a suitable timeframe then then the provisions with the Development Consent Order (3.1) under Schedule 22, Part 2, 4 (d) and Part 3, 4d, would facilitate the use of this option. As previously noted, given the operational programme that the Project is working to, and to minimise the risk of any uncertainty of the availability of such a measure under the MRF in good time, the Project is proceeding on the basis that it will deliver auk compensation on a Project alone basis. The Applicant also notes that, should such a measure become available through the MRF at a date after the implementation of a project alone ANS, then this could, if necessary, be utilised as an adaptive management measure as per Schedule 22, Part 2, 4(b) and Part 3, 4, (b).

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Q1 HRA 2.2	The Applicant and NE	**DEFRA Best Practice Guidance on developing compensatory measures for Marine Protected Areas** Paragraph 3 of the Without Prejudice Guillemot Compensation Strategy [APP-252] has made reference to DEFRA guidance on developing compensatory measures in relation to Marine Protected Areas. In Footnote 1 the Applicant notes that whilst it is aware of this guidance, it is out for consultation and the project delivery programme did not allow for full inclusion of the recommendations. ▪ Has the final version of this guidance now been published and, if so, has it altered from the consultation version? Please provide a copy of any final, published Guidance into the Examination. If a final version has not yet been published, do any of the recommendations in the draft Guidance have implications for the Proposed Development that have not already been considered?	The Applicant received an update from Defra on the 19.11.24 confirming that: *'The MPA guidance has not been published due to the delays caused by the General Election. However, we intend to provide guidance in support of the regulatory changes we are making for offshore wind under the Energy Act 2023. We hope to consult on this in spring 2025'.* In terms of recommendations in the draft Guidance that may have implications for the Proposed Development, the principal area is that which covers the topic of 'like for like' and 'non like for like' compensation and the compensation hierarchy (page 16-20 of the draft guidance which can be found at the following link: 090224 OWEIP Consultation on updated policies to inform guidance for MPA assessments .pdf). To summarise, the guidance states that compensatory measures to protect the overall coherence of the MPA network should benefit the ecological structure and functions necessary to support the feature or features at risk (species or habitats or both). The guidance suggests that compensatory measures which would benefit a different qualifying feature or features at risk to the one which would be affected but are focused on providing functional equivalence (e.g. 'non- like for like' measures), are less likely to protect the overall coherence of the National Site Network (SACs or SPAs). This is of relevance to the project particularly for the without prejudice measure of biogenic reef creation which the Applicant has proposed which would provide functional equivalence for the Annex I sandbank feature of the IDRBNR SAC. Natural England in their (RR-045) have stated that the measure could be appropriate for the Annex I biogenic reef feature (*Sabellaria spinulosa*) of the IDRBNR SAC but would not be appropriate for sandbanks for essentially the same reasons proposed by the guidance. Applying the premise of the guidance without a review of the evidence as to whether a proposed non-like for like measure can deliver compensation which ensures that the overall coherence of the National Site Network is protected, as is required by the Habitats Regulations,[2] could result in an overly restrictive view of measures which would otherwise be ecologically viable and deliverable. The Applicant does not agree with this position as stated in (PD1-070) and notes that the Defra guidance is in draft form with no firm date or indeed certainty that these recommendations will be incorporated into a final form (assuming that a final form is published). As such, all of the principles and definitions within the draft guidance may change assuming the guidance is eventually formalised. The Applicant notes that following on from the consultation on the draft Defra guidance in July 2021, Defra consulted on draft policies to inform updated guidance between February and April 2024. Therefore, the Applicant considers that any draft guidance presented in the consultation on policies to inform updated guidance for MPA assessments should be given limited weight in the context of the Project's application.

[2] Regulation 68, Conservation of Habitats and Species Regulations 2017 and Regulation 36, Conservation of Offshore Marine Habitats and Species Regulations 2017

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			Furthermore, for any necessary benthic compensation it is fully expected that this will be delivered through the government led strategic extension of MPAs as referred to in Q1 HRA 2.1. which is the preferred measure of both Natural England and the Applicant. Further information on this measure is expected to made available soon through the release of a ministerial statement and relevant guidance by DEFRA. Another area of relevance is in relation to the compensation hierarchy which states that as far as possible measures should take account of ecological effectiveness (priority consideration), the local circumstances where the risk is predicted to occur ('local circumstances') and that measures should be delivered as close as possible to the area affected by the plan or project ('proximity'). The compensation hierarchy relevant to MPAs presented in the guidance is as follows: 1. Taking full account of local circumstances where the risk to the feature is predicted to occur, delivered within or adjacent to the area affected by the plan or project. 2. Taking full account of local circumstances where the risk to the feature is predicted to occur, delivered at a distance to the area affected by the plan or project. 3. Taking some account of local circumstances where the risk to the feature is predicted to occur, delivered within or adjacent to the area affected by the plan or project. 4. Taking some account of local circumstances where the risk to the feature is predicted to occur, delivered at a distance to the area affected by the plan or project. 5. Taking no account of local circumstances where the risk to the feature is predicted to occur, delivered within or adjacent to the area affected by the plan or project. 6. Taking no account of local circumstances where the risk to the feature is predicted to occur, delivered at a distance to the area affected by the plan or project. The guidance proposes that the lower the confidence in effectiveness and the further down the hierarchy a given measure is then the higher the compensation ratio applied should be. Should this logic be applied to the compensation measures proposed for auks, i.e., predator control and the additional measures proposed in south west England, then given the distance of the sites from the FFC SPA a higher compensation ratio could be proposed. Again, this goes significantly further than the requirements of the Habitats Regulations. The Habitats Regulations require that measures are taken to ensure the overall coherence of the National Site Network is protected. If a measure is demonstrated to be ecologically effective, deliverable and would ensure the overall coherence of the National Site Network is protected (not just the site affected by the project in question), the obligation is satisfied. However, the Applicant maintains its position as outlined in (PD1-070) that the ratios proposed are appropriate and further points to the three documents submitted at this deadline (Deadline 2) that describe the levels of precaution that are already built in to the assessment methodology which mean that the application of a 1:1 ratio is appropriate (19.8 Levels of precaution in the assessment and confidence calculations for

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			offshore ornithology; 19.9 Statutory Nature Conservation Bodies (SNCB) guidance and bioseasons for guillemot; 19.10 Rates of displacement in guillemot and razorbill). The Applicant again notes that the Defra guidance is in draft form with no firm date or indeed certainty that these recommendations will be incorporated into a final form (assuming that a final form does occur). As such, all of the principles and definitions within the draft guidance may change assuming the guidance is eventually formalised. The Applicant notes that following on from the consultation on the draft Defra guidance in July 2021, Defra consulted on draft policies to inform updated guidance between February and April 2024. Therefore, the Applicant considers that any draft guidance presented in the consultation on policies to inform updated guidance for MPA assessments should be given limited weight in the context of the Project's application.
Q1 HRA 2.3	The Applicant, NE and RSPB	**Level of information on compensation measures** The RSPB in its D1 submission [REP1-047] has raised a number of overarching concerns about the Applicant's approach to the formulation of its proposed compensation measures and the amount of information that has been provided for kittiwake, guillemot and razorbill regarding, but not limited to, detailed design, timescales, lead-in times and connectivity to the UK National Site Network for guillemot and razorbill. In its latest Risk and Issues Log [REP1-064] NE has also maintained its view that the information provided by the Applicant on the proposed compensation measures, particularly for razorbill and guillemot, is either lacking or not fully explained for a number of issues. In fact, despite the Applicant's response in [PD1-071], there has been no change in the updated Risk and Issues log [REP1-064] from any of NE's previous positions on the offshore ornithological compensation measures. **To the Applicant:** The ExA is aware that you have responded to both NE's and the RSPB's Relevant Representations in [PD1-071]. Is it your intention to provide any further responses regarding the detailed additional information on ornithological compensation measures requested by either NE in [REP1-064] or the RSPB in [REP1-047]. If so, then please state when this information is likely to be submitted. If not, then justify your position on this matter. **To NE and RSPB:** Recent Orders have been made (for example for Hornsea Four and the Sheringham Shoal and Dudgeon Extension Projects) for offshore wind farm projects that contained proposed ornithological compensation measures. Comment on the level of information regarding compensation measures that was submitted to accompany these other projects, and which has been found to be acceptable by the Secretary of State, in comparison with that which has been submitted by the Applicant for this Proposed Development.	**Plémont Seabird Reserve** The Applicant has submitted an updated version of the Predator Control Evidence Base and Road Map (APP-257) at this deadline. This includes a 'Design Statement' for the predator proof fencing and a 'Management Plan' including details of proposed invasive plant removal, habitat restoration and enhancement, a high level predator eradication and monitoring programme, and a schedule of works, documents produced for National Trust Jersey as part of the planning application for Plémont Seabird Sanctuary submitted in November 2024 (P/2024/1198). The Applicant highlights the confirmation provided by the Department for Environment for Jersey on behalf of the Public of Jersey, (landowner of the land on which the fence is planned to be erected), that land rights would be granted to install the fence pending planning approval (PD1-099). The Applicant notes that an extension of the exclusivity agreement between the Applicant and National Trust Jersey from November 2024 to November 2025 has recently been signed. The Applicant will now proceed with the Plémont Seabird Reserve project to agree Heads of Terms for a funding agreement. The Predator Control Evidence Base and Road Map (APP-257) includes a timetable for delivery based on the Applicant's aim for the measure to be fully established one year in advance of the wind turbine generator towers being installed. In light of the summary presented above it is the Applicant's position that there can be sufficient confidence that the measure is secured as far as is possible at this stage and can be delivered within the necessary timeframes. **Alternative Measures in South West England** The Applicant is in discussion with relevant organisations regarding the delivery of measures across a suite of sites for both guillemot and razorbill in the south west of England. Updates on these measures and their implementation, and on the compensation potential at each site, will be provided at Deadline 4. Measures will be based upon reduction of disturbance and habitat management. Sources and levels of anthropogenic and other forms of disturbance, and potential for

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			habitat improvement, have been assessed across a suite of eight sites across Devon and Cornwall through surveys carried out during the 2024 breeding season. Site specific measures have been identified for each location. Discussions with delivery partners and relevant landowners are ongoing. The Applicant also refers to the Letter of Comfort from The Crown Estate (document reference 19.15) which confirms TCE's ability to grant the rights which would be required in respect of the construction and/or carrying out of the compensatory measures identified on the foreshore and/or within territorial waters where these sites are within TCEs ownership. An outline proposal has also been received from a key delivery partner for one site and further meetings are planned with other potential delivery partners in the near future. The Applicant will update on progress in due course. **Auk compensation on ANS** An ANS concept study (commercially sensitive) is being undertaken by the Applicant. The design of the ANS will incorporate nesting spaces specifically tailored to accommodate guillemot, and razorbill in addition to kittiwake. The Applicant notes that, in respect of the detail in relation to the implementation of guillemot and razorbill compensation, Paragraph 2, Part 2, Schedule 22 of the Development Consent Order (DCO) secures the requirement for the formation of the Guillemot Compensation Steering Group (GSCG) and Paragraph 2, Part 3, Schedule 22 of the Development Consent Order (DCO) secures the requirement for the formation of the Razorbill Compensation Steering Group (RSCG). Following consultation with the GSCG and RSCG, a Guillemot Compensation Implementation and Monitoring Plan (GCIMP) and a Razorbill Compensation Implementation and Monitoring Plan (RCIMP) must be submitted to the Secretary of State for approval. Paragraph 4, Part 2 of Schedule 22 of the DCO sets out the detail that the GCIMP must include before the GCIMP can be submitted to the SoS for approval and subsequent discharge of the requirement. Paragraph 4, Part 3 of Schedule 22 of the DCO provides the same for razorbill. This process would occur post consent. Equivalent post consent discharge processes have been included in the made order for all other projects which have required ornithological compensation to date. **Kittiwake compensation (ANS)** With regard to the ANS for kittiwake, the Applicant is currently progressing project-led offshore ANS to a programme that will allow the Project to be operational assuming a condition of a three full breeding seasons before the operation of any turbine, as per Schedule 22 of the draft Development Consent Order (dDCO) (noting that the Applicant intends to submit a change request to shorten this requirement from three full breeding seasons to two full breeding seasons as supported by Document 19.11 Lead-in periods for kittiwake breeding on Artificial Nesting Structures) . The Applicant notes that the two areas identified as potential locations for the Project's ANS, secured through the Deemed Marine Licences within the dDCO , have been

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			confirmed as ecologically appropriate through the KSCP. The Applicant also refers to the Letter of Comfort provided by The Crown Estate (TCE) (document reference 19.15) which confirms TCE have the ability to grant the rights required in respect of the construction of the Offshore ANS site(s), subject to the relevant conditions outlined in the letter. The Applicant also notes that it is in discussion with TCE to agree Heads of Terms for the lease of the relevant areas of seabed. The Applicant continues to liaise with the KSCP, and a (commercially sensitive) concept study is in development. The functional specifications identified through the concept study will inform the detailed design stage which is not expected to commence until Q3 of 2025 at the earliest. The final detailed design would expect to be shared with the steering group in the post consent stage. The Applicant understands that DBS intend to progress an offshore ANS. The two projects (ODOW and DBS) are exploring the potential for nesting space to be shared to present reciprocal resilience across the compensation measure (an MoU is currently being drafted between the two parties), therefore delivering the strategic measure and approach in line with the KSCP, collaboratively through the installation of individual project-led ANS. The Applicant notes that, in respect of the detail in relation to the implementation of the kittiwake compensation, Paragraph 2, Part 1, Schedule 22 of the Development Consent Order (DCO) secures the requirement for the formation of the Kittiwake Compensation Steering Group (KSCG). Following consultation with the KSCG, a kittiwake compensation implementation and monitoring plan (KCIMP) must be submitted to the Secretary of State for approval. Paragraph 4, Part 1 of Schedule 22 of the DCO sets out the detail that the KCIMP must include before the KCIMP can be submitted to the SoS for approval and subsequent discharge of the requirement. This process would occur post consent. Equivalent post consent discharge processes have been included in the made order for all other projects which have required ornithological compensation to date. In light of the summary presented above it is the Applicant's position that there can be sufficient confidence that the measure is securable and can be delivered within the necessary timeframes. The Applicant wishes to highlight that a Change Notification (document reference 19.15) has been submitted at this deadline to amend the Order to reduce the length of time the proposed ANS for kittiwake needs to be in place before operation of the project from three full breeding seasons to two full breeding seasons. A document providing the justification for the proposed change also been submitted at this deadline (document reference 15.11).
Q1 HRA 2.4	The Applicant, NE and RSPB	**Non-material change to the Hornsea Four Order** On 17 July 2024 the Secretary of State accepted a non-material change request to the Hornsea Four Offshore Wind Farm Development Consent Order (SI 2023/800). This change sought to amend the Order to reduce the length of time	The Applicant's position is that designing measures that will address compensation debt over the lifetime of the project is a more effective method of dealing with compensation debt than the introduction of a lead-in period. In support of this position, the Applicant has modelled growth of a kittiwake population on an ANS (document reference 15.11).

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		the proposed artificial nesting structure for kittiwake needs to be in place before operation of the project from four full breeding seasons to two full breeding seasons. Comment on the implications of this recent decision in regard to the lead-in times for the Proposed Development.	Even assuming a worst case, i.e. using the upper confidence interval (UCI) impact value and a compensation requirement of a 1:3 ratio, the required compensation is met within the lifetime of the project with a two-year lead-in period on a colony that supports 500 Apparently Occupied Nests (AONs) and is comfortably surpassed on a colony that supports 900 AONs. As such, the Applicant considers that a two-year lead in period is appropriate for the Project. The modelled growth of a kittiwake population on an ANS undertaken by the Applicant largely follows the most precautionary approach within the Growth Pathways Analysis submitted by Hornsea Four and accepted by the Secretary of State in granting the non-material change. The Applicant is submitting a Change Notification (document reference 19.15) at this deadline to amend the Order to reduce the length of time the proposed artificial nesting structure(s) for kittiwake needs to be in place before operation of the project from three full breeding seasons to two full breeding seasons in order that project timelines can be met. This will result in no changes to any of the existing impact assessments. Lead-in periods for kittiwake ANS have been reduced at both Hornsea Three and Hornsea Four, with the reduction to a two-year lead-in period for Hornsea Four. The Applicant notes that both Hornsea Three and Hornsea Four had higher predicted impacts on kittiwake than those predicted for the Project (73 kittiwakes per year for Hornsea Three, 43.1 kittiwakes per year for Hornsea Four, and a worst-case scenario of 40.5 birds per year for the Project (using data with the Offshore Restricted Build Area (ORBA) and Natural England's preferred approach to calculating impacts). The Applicant therefore considers that a reduced lead-in period is equally, if not more, appropriate for the construction of the ANS proposed by the Project. Without consideration of the ORBA, the Projects worst-case scenario is 36.7 birds per year.
Q1 HRA 2.5	The Applicant	**Establishment of the Plémont Seabird Reserve** The Applicant has submitted as Document Reference 7.7.5,.1 'Plémont Seabird Reserve Feasibility Study Report for a Predator-Exclusion Fence' [APP-258]. This is a draft report dated February 2021. The RR from Birds On The Edge [RR-009] states that: " *BOTE would like to establish a reserve comprising a one kilometre mile stretch of coast between the Plémont and Creux Gabourel Headlands in northern Jersey in order to provide long-term benefits for auk species, and their habitats (the Plémont Seabird Reserve).*" Provide an update on both the establishment of the Plémont Seabird Reserve and the installation of the predator exclusion fence. If neither has yet occurred then comment on when this is likely to happen and what obstacles to establishment remain. How confident can the ExA be that this reserve will be established and the predator exclusion fence will be in place before either: a) the close of this Examination or b) the commencement of construction operations should the Order be made?	As noted in response to Q1 HRA 2.3, the Applicant has submitted an updated version of the Predator Control Evidence Base and Road Map (APP-257) at this deadline. This includes a 'Design Statement' for the predator proof fencing and a 'Management Plan' including details of proposed invasive plant removal, habitat restoration and enhancement, a high-level predator eradication and monitoring programme, and a schedule of works, documents produced for National Trust Jersey as part of the planning application for Plémont Seabird Sanctuary submitted in November 2024 (P/2024/1198). The Applicant highlights the confirmation provided by the Department for Environment for Jersey on behalf of the Public of Jersey, (landowner of the land on which the fence is planned to be erected), that land rights would be granted to install the fence pending planning approval (PD1-099). The Applicant notes that an extension of the exclusivity agreement between the Applicant and National Trust Jersey from November 2024 to November 2025 has recently been signed. The Applicant will now proceed with the Plémont Seabird Reserve project to agree Heads of Terms for a funding agreement. The Predator Control Evidence Base and Road Map (APP-257) includes a timetable for delivery based on the Applicant's aim for the measure to be fully established one year in advance of the wind turbine generator towers being installed. This is secured in paragraph 4(a)(iv), Parts 2 and 3, Schedule 22 of the dDCO (3.1).

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			In light of the summary presented above it is the Applicant's position that there can be sufficient confidence that the measure is secured as far as is possible at this stage and can be delivered within the necessary timeframes.
Q1 HRA 2.6	The Applicant and NE	**Use of the Plémont Seabird Reserve by other projects for compensation** Are any of the other 'live' offshore wind farm applications such as Five Estuaries, North Falls or Dogger Bank South proposing predator control at the Plémont Seabird Reserve East as a potential compensation measure for their impacts on auk species? If so, then how can the required quantum and effectiveness of the proposed compensation be allocated and assessed between more than one project?	As set out in the Predator Control Evidence Base and Road Map (APP-257), the Applicant is proposing to fund the delivery of the measures required to realise the Plémont Seabird Reserve. The Applicant has an exclusivity agreement in place with the Plémont Seabird Reserve that will allow the Applicant to ensure that all compensation delivered by this measure will be used to address impacts from the Project. Therefore, no other 'live' offshore wind farm applications are proposing predator control at this location. The Applicant's position is that the Plémont Seabird Reserve can provide sufficient compensation for the impacts of the Project using the Applicant's preferred approach. However, assuming that compensation is required, it is not yet known what the SoS may deem this quantum to be. Therefore, the Applicant is not a position to consider to the allocation of any potential additional compensation beyond that which might be required by the Project to other offshore wind projects.
Q1 HRA 2.7	The Applicant	**Applicability of predator control measures at Plémont Seabird Reserve for Guillemot** In paragraph 33 of the Without Prejudice Predator Control Evidence Base and Road Map [APP- 257] you note that: "*There is currently no guillemot breeding population at the Reserve, although annually individual birds are noted in the area, potentially searching for suitable breeding habitat and birds are seen annually below the cliffs at Grosnez point, just west of the site, in the breeding season, with birds noted flying up to the cliffs on occasion. With this behaviour noted, and the regularity of occurrence here and off the reserve in the breeding season, it is possible that breeding is occurring undetected*." Given that there is currently no firm evidence of a breeding population of guillemot, justify your selection of predator control at Plémont Seabird Reserve as a suitable without prejudice compensation measure for guillemot that could provide the capacity for 200 breeding pairs as identified in Table 2.3 of [APP-252].	The Applicant notes that guillemots have been observed annually around the Plémont Seabird Reserve, which is a relatively un-monitored colony, which indicates that the birds consider it to be suitable habitat, and could feasibly be breeding there undetected. There is also evidence based on historical counts of the presence of auks at the Plémont Seabird Reserve, with high counts of 300 individuals of both guillemot and razorbill (which may have been limited by the presence of predators). A reduction in numbers of both guillemot and razorbill at the site coincided with the arrival and continued presence of ferrets which may indicate that the population is limited by the presence of this predator. The implementation of the predator control measures is likely to increase breeding success in seabird species that currently breed at the site. The 'community information theory' (e.g. Danchin *et al.,* 1998) shows that birds base decisions to breed at a given site on the suitability of habitat and the breeding success demonstrated by other birds. Work funded by the Applicant will be undertaken at the site from 2025 and will include the encouragement of colonisation by playing guillemot and razorbill calls at the colony and the deployment of decoys at suitable nesting sites. The Applicant considers that these measures, along with the suitability of habitat and visible breeding success in other species, will be suitable encouragement for guillemot to start breeding at the site.
Q1 HRA 2.8	The Applicant	**Timescale for provision of further information** On page 287 of The Applicant's Responses to Relevant Representations [PD1-071] it is stated in relation to predator control for guillemot and razorbill of the FFC SPA that: "*Details of the ongoing monitoring and adaptive management of the measure will be provided when they have been finalised*."	Should the Project be consented, dedicated steering groups will be formed to guide the implementation of the proposed compensation measures and develop adaptive management measures should these be required. The Applicant considers that, based on the Applicant's approach to impact assessment, the Plémont Seabird Reserve will be able to deliver the full compensation requirement for both guillemot and razorbill. In the event that The Secretary of State deems that

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		The ExA notes that examples of potential adaptive management measures have been given in paragraph 13.1.4 of the Crown Estate Strategic Kittiwake Compensation Plan [APP-261]. Consequently, please explain why details of potential adaptive management techniques cannot be provided now. If they are to be provided at a later time, will this be within the course of this Examination? If not, then explain what confidence the ExA can have that adequate adaptive management measures would be provided post-Examination?	compensation beyond that which could be provided by the Plémont Seabird Reserve is necessary then the Additional Measures across the suite of sites in South West England and the use of ANS which will be designed to accommodate both auk species are secondary and tertiary measures to enable any necessary compensation quantum to be met. Should the Secretary of State agree that the Plémont Seabird Reserve provides sufficient compensation for the Project, then the Additional Measures across the suite of sites in South West England and the use of ANS could represent adaptive management measures. The following adaptive management practices can also be considered: ▪ At Plémont, where measures are based on predator control and encouragement of colonisation, adaptive management could include increasing use of decoys and refining the audio used to attract birds to the colony. Further habitat management including clearing vegetation from cliffs to expose more suitable habitat, management of drainage to create dry spaces on the cliff, adaptive monitoring and increased control effort in the case of predator re-invasion or a less successful eradication campaign could also be considered. ▪ At the South West sites, where the Additional Measures will be based on the reduction of anthropogenic disturbance during the breeding season, and where possible, reduction in disturbance and predation from avian predators, adaptive management could include habitat management, monitoring for and control of non-native predators, implementation of physical vessel restrictions and diversionary feeding of predators. The implementation of measures at additional sites, as identified in the original long list provided in 7.7.6 Without Prejudice Additional Measures for Compensation of Guillemot and Razorbill, could also be considered. At the ANS, where measures are based on the provision of suitable nesting sites, adaptive management could include increasing use of decoys, adding decoy nests to the ANS (and then adding decoy young), refining the audio used to attract birds to the colony and predator restrictions.
Q1 HRA 2.9	The Applicant	**Additional measures in the Without Prejudice Guillemot Compensation Strategy** Table 2.3 of the Without Prejudice Guillemot Compensation Strategy [APP-252] identifies that "*Additional measures*" have the potential to compensate for 1,040 guillemot breeding pairs. The ExA notes that in paragraph 153 of the Without Prejudice Additional Measures for Compensation of Guillemot and Razorbill [APP-259] it is considered that "*Across the six sites, restoring populations to previous maxima through the implementation of a measure or suites of measures described here, would increase guillemot numbers by 2,081birds and razorbill by 269*."	The Applicant will present updated details on the 'Additional Measures' proposed. The Applicant's suite of sites has evolved since the 'Without Prejudice Guillemot Compensation Strategy' was submitted, and the suite of sites now comprises eight locations, including five of the sites originally listed. Full details of these sites and the compensation they could potentially deliver will be provided at Deadline 4. Compensation potential has been calculated using published regional productivity rates (Horswill and Robinson 2015) as 'expected productivity' and recent historic peak counts as a proxy for maximum colony size. The potential for compensation is the difference between the outputs of the colony at the maximum size with the expected productivity, compared to the current outputs.

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		However, it is unclear exactly how you have arrived at the figure cited in paragraph 153 of [APP- 259] and Table 2.3 of [APP-252]. Consequently, please either signpost to where in your submitted documentation these figures have been derived or explain, in more detail, the data behind this predicted number. You go on to state in paragraph 152 of [APP-259] that "*the overall scale of compensation that can be delivered by this suite of additional measures will be defined by which sites are taken forward*." Given this statement, how confident can you be at this stage in your aforementioned predicted figures?	The scale of compensation available from the Additional Measures across the suite of sites is large compared to the likely compensation requirement and, as such, redundancy is built in. These sites will be used to 'top up' the compensation being delivered by the Plémont Seabird Reserve if necessary, rather than providing the full requirement (based on the Applicant's approach to impact assessment).
Q1 HRA 2.10	The Applicant	**Additional measures in the Without Prejudice Razorbill Compensation Plan** Table 2.3 of the Without Prejudice Razorbill Compensation Plan [APP-255] identifies that "A*dditional measures*" have the potential to compensate for 134 razorbill breeding pairs. The ExA notes that in paragraph 153 of the Without Prejudice Additional Measures for Compensation of Guillemot and Razorbill [APP-259] you consider that "*Across the six sites, restoring populations to previous maxima through the implementation of a measure or suites of measures described here, would increase guillemot numbers by 2,081birds and razorbill by 269*." However, it is unclear exactly how you have arrived at the figure cited in paragraph 153 of [APP- 259] and Table 2.3 of [APP-255]. Consequently, please either signpost to where in your submitted documents you have derived these figures from or explain in more detail how you have arrived at this predicted number. You go on to state in paragraph 152 of [APP-259] that "*the overall scale of compensation that can be delivered by this suite of additional measures will be defined by which sites are taken forward*." Given this statement, how confident can you be at this stage in your aforementioned predicted figures?	The Applicant will present updated details on the 'Additional Measures' proposed. The Applicant's suite of sites has evolved since the 'Without Prejudice Razorbill Compensation Strategy' was submitted, and the suite of sites now comprises eight locations, including five of the sites originally listed. Full details of these sites and the compensation they could potentially deliver are being provided at Deadline 4. Compensation potential has been calculated using published regional productivity rates (Horswill and Robinson 2015) as 'expected productivity' and recent historic peak counts as a proxy for maximum colony size. The potential for compensation is the difference between the outputs of the colony at the maximum size with the expected productivity, compared to the current outputs. The scale of compensation available from the Additional Measures across the suite of sites is large compared to the likely compensation requirement and, as such, redundancy is built in. These sites will be used to 'top up' the compensation being delivered by the Plémont Seabird Reserve, rather than providing the full requirement (based on the Applicant's approach to impact assessment).
Q1 HRA 2.11	The Applicant	**Calculations on compensation requirements for kittiwake** Table 2.1 of the Kittiwake Compensation Plan [APP-250] provides figures for the compensation requirement for kittiwake in terms of breeding pairs using either the 'Hornsea 4' or the 'Hornsea 3, part 2' calculation methods. Either explain the differences between these two calculation methods or signpost to where you have provided such an explanation, and justify your choice of the 'Hornsea 4' calculation method.	Both the Hornsea Four and Hornsea Three part two compensation calculation methods calculate the number of nests required to generate the requisite number of young birds needed for compensation. Both approaches are based on a calculation that considers survival rates across the different age groups, and published ages of first recruitment. The number of fledglings required to deliver the required number of adults is calculated. The number of fledglings is then multiplied by a published productivity rate to give a number of nests required. This is the Applicant's preferred approach and was accepted by the SoS in relation to the Hornsea Four ANS DCO decision. The Hornsea Three stage two calculation then considers the losses from the colony at the ANS through natural wastage, i.e. through natural mortalities and adults leaving the colony to recruit elsewhere. These losses are assumed to be recouped from the impacted colony (i.e. Flamborough and Filey Coast (FFC) SPA). As such, the number of birds required to be compensated each year is the number impacted by the Project and the losses from the ANS colony, summed. This approach is not appropriate for the Project as it is unlikely that all, or even a majority of, birds lost annually from the ANS will be recouped from the FFC SPA. This is because there is a large population of kittiwakes breeding on offshore platforms within the vicinity

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			of the proposed ANS area. Surveys in 2023 monitored 17 offshore platforms, upon which a total of 836 kittiwake AONs were recorded. The monitoring effort was restricted to the closest platforms to the Project, which were all within 20km of the array area, and there are many more breeding kittiwake in the wider offshore area (as evidenced by monitoring of offshore platforms by Hornsea Four across the wider North Sea (NIRAS 2021)). This offshore population is much closer to the ANS than the FFC SPA and as such, these offshore breeders are considered a more likely source for colonisation and replenishment of numbers due to natural wastage.
Q1 HRA 2.12	The Applicant	**Offshore Artificial Nesting Structures (ANS) Evidence Base and Road Map** The intention of [APP-256] is to act as a 'Road Map' and as such does not contain the full details of the proposed compensation measure of ANSs for both kittiwake and potentially also for razorbill and guillemot. • what is the envisaged timescale for reaching a final decision on the design, number and exact location(s) of the proposed ANSs; • how will that be taken forward into the construction programme; • what will be the assessment and consultation process used to arrive at that decision; • how will this be monitored; and what will be the dispute resolution process should agreement not be reached between yourself and other parties regarding any issue?	A (commercially sensitive) concept study is in development. The functional specifications identified through the concept study will inform the detailed design stage which is not expected to commence until Q3 of 2025 at the earliest. It is expected that the final detailed design would be shared with the steering group in the post consent stage. The Applicant will undertake detailed site investigation work to decide on the appropriate location for the ANS. The Applicant is currently progressing project-led offshore ANS which would be sufficient for compensation requirements related to its impacts. The Applicant understands that DBS intend to progress an offshore ANS. The two projects are exploring the potential for nesting space to be shared to present reciprocal resilience across the compensation measure (an MoU is currently being drafted between the two parties), therefore delivering the strategic measure and approach in line with the KSCP, collaboratively through the installation of individual project-led ANS. The Applicant's position is that only a single ANS is required to be delivered by the Project and that this would be secured by the Secretary of state in the final DCO decision. The Applicant wishes to highlight that a Change Notification (document reference 19.15) has been submitted at this deadline to amend the Order to reduce the length of time the proposed ANS for kittiwake needs to be in place before operation of the project from three full breeding seasons to two full breeding seasons. A document providing the justification for the proposed change also been submitted at this deadline (19.11 Lead-in periods for kittiwake breeding on ANS). As such the construction program as outlined in the Evidence Base and Road Map (APP-256), will be subject to change should the Examining Authority accept the change request. If this is the case the Applicant proposes an updated submission at Deadline 4. The shortening of the breeding season lead in time from three to two full breeding seasons would allow more time for the consultation process and increase flexibility in the procurement and construction phases. However, based on a three-year breeding season lead in and where consent is granted in 2025, construction of the ANS components, and installation, would take place in 2027. With commencement of operations in 2030, installation in 2027 meets the three-year lead-in period (as discussed in the roadmap) (APP-256). The Applicant notes that, in respect of the detail in relation to the implementation of the kittiwake compensation, Paragraph 2, Part 1, Schedule 22 of the Development Consent Order (DCO) secures the requirement for the formation of the Kittiwake Compensation Steering Group (KSCG). Following consultation with the KSCG, a kittiwake compensation implementation and monitoring plan (KCIMP) must be submitted to the Secretary of

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			State for approval. Paragraph 4, Part 1 of Schedule 22 of the DCO sets out the detail that the KCIMP must include before the KCIMP can be submitted to the SoS for approval and subsequent discharge of the requirement, which includes an implementation timetable for delivery of the ANS, details of proposed monitoring and adaptive management. This process would occur post consent. Equivalent post consent discharge processes have been included in the made order for all other projects which have required ornithological compensation to date. For example, Part 1, 2 (a- d) sets out that Works No 1 cannot be commenced until a plan of work for the KSCG has been approved by the SoS. The plan must include: (a) terms of reference of the KCSG; (b) details of the membership of the KCSG which must include the relevant statutory nature conservation body and, where appropriate, the MMO and/or the relevant planning authority as core members;— (c) details of the proposed schedule of meetings, timetable for preparation of the KCIMP and reporting and review periods; and (d) the dispute resolution mechanism. The dispute resolution process would be expected to follow those as agreed under the plan of works for previous projects such as Norfolk Boreas and Norfolk Vanguard (see EN010087-002988-Norfolk Projects Kittiwake Steering Group Plan of Work.pdf). The same approach is adopted for the design of the ANS in relation to guillemot and/or razorbill, if required under Parts 2 and 3, Schedule 22 of the dDCO.
Q1 HRA 2.13	The Applicant	**Potential for conflict on ANS** Para 54 of the Offshore Artificial Nesting Structures Evidence Base and Road Map [APP-256] states that: "*Although highly territorial when defending their breeding site, it appears guillemot breeding success is correlated with the presence of nearby neighbours (Olsthoorn & Nelson, 1990)*." Please clarify this statement and comment on the evidence available to demonstrate whether or not there would be any potential for conflict to exist between kittiwake, razorbill and guillemot should ANS be required for all three species within the same overall structure.	The correlation between the presence of near neighbours (as stated in Olsthoorn & Nelson 1990) is positive, i.e. birds breeding in dense colonies are more successful than those that don't. This is likely to be due to the safety in numbers that proximity brings, and the community information that is gleaned from breeding so close to other birds. Conflict is a natural part of colonial breeding and there is no evidence that territoriality is detrimental to breeding success. Guillemot breed in very close proximity with their nearest neighbours, with an average density of 20 Apparently Occupied Sites (AOS) per m^2 of cliff calculated (Mitchell *et al*., 2004). Territorial behaviour between breeding guillemots manifests itself in the form of pecking and vocal threats and these interactions are not known to impede breeding success with closest neighbours. The species for which the ANS will be designed (kittiwake and, depending on requirements, guillemot and razorbill), occur naturally together across many seabird colonies and breed in close proximity to one another at the FFC SPA. Territoriality between species will be more limited on the ANS than at a natural seabird colony, as to meet the nesting requirements for each species, discreet breeding areas tailored to each will be provided.

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			Therefore, the Applicant considers that the potential for conflict between species might be reduced due to the layout of the ANS, and any conflict between members of the same species should be seen as a natural part of a normally functioning seabird colony.
Q1 HRA 2.14	NE The Applicant	**'Without Prejudice' Benthic Compensation** NE states that it cannot support the proposed 'Without Prejudice' Compensation Measures Alternative measures for Annex I sandbanks and Reef Creation of Annex I reef as compensation for Annex I Sandbank Habitat Anthropogenic Pressure Removal: Marine Debris and Awareness Campaign [PD1-071 NE Ref NE6]. • What would NE want to see from the Applicant to be confident that the measure could offset the impacts on Annex I sandbanks and reef creation of Annex I reef? • How has the Applicant progressed the development of other various 'without prejudice' compensation measures? The ExA requests that the Applicant set out progress on each measure in a tabulated form which is subsequently updated at each deadline.	The Applicant has provided updates to 'without prejudice' compensation measures in Appendix 1.11 Q1 HRA 2.14 'Without Prejudice' Benthic Compensation Measures Update. The Applicant received an update from Defra on the 19.11.24 confirming the expectation that the MRF will be in place by Autumn 2025, however no specific date has been provided. It can therefore be expected that the MRF could be in place in prior to or around the same time as the determination of the consent for the Project. The Applicant understands that a ministerial statement and relevant guidance in relation to the delivery of strategic benthic compensation by way of SAC extension through the MRF will be issued by Defra in the very near future. The Applicant has sought an update on exact timing of the release of this material from Defra but has not received a response. Once this information is available it will be submitted into the Examination. It is expected that the ministerial statement will confirm the availability of this measure to the Applicant in the timescales required. The Applicant notes that this is the principal measure which would require government input for delivery. Updates on other benthic measures are provided in response to question Q1 HRA 2.14, but these measures would not be available through the MRF and are generally expected to be able to be delivered on a project alone basis if necessary, noting that it is expected that the strategic delivery of an SAC extension would be available. If the MRF does not become available, then all of the measures can be taken forward as described (or as will be described).

1.12 Historic Environment

Table 1.12: Historic Environment

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Historic Environment			
Q1 HE 1.1	The Applicant	**Archaeological Surveys** In [PD1-071], Section RR-004.012, it is stated that further archaeological investigations have begun, including trial trenching. Provide an update on progress and any implications for the assessment outcomes presented in the Environmental Statement (ES).	The results of archaeological works undertaken in 2024 and any further trial trenching to be undertaken from 2025 will inform the final mitigation strategy in accordance with the Outline Written Scheme of Investigation (OWSI) (PD1-052) and the Project's detailed design. The results of these works were not considered to be necessary to inform the ES which is considered to be robust. The works were carried out incidental to Examination, seeking only to take advantage of a Summer/Autumn window for works incurring substantial ground disturbance.

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			Nevertheless, archaeological investigations undertaken in 2024 have provided confidence in the conclusions of the ES These investigations have included archaeological trial trenching undertaken in accordance with a Written Scheme of Investigation (WSI) prepared in consultation with Lincolnshire County Council (LCC). Throughout the course of the trial trenching seven update reports have been shared with LCC and Historic England (HE). LCC have also attended three site monitoring meetings. Geoarchaeological works have also been undertaken in accordance with a WSI prepared in consultation with Historic England (HE). These works have included geoarchaeological boreholes and slit trenches/test pits. Regular updates have been provided to HE via email. Works were undertaken by AOC Archaeology during June-November 2024. ***Archaeological Trial Trenching*** The WSI relating to the 2024 trial trenching set out the location of 220 trial trenches specifically targeting Historic Environment Record (HER) entries, demolished historic farmsteads (known from historic mapping) and geophysical magnetometer anomalies, all of which may infer the potential presence of archaeological remains. Such remains are referenced in the ES chapter (AS1-048, Table 20.9) which includes Areas of Archaeological Interest (AAI) - particularly dense anomalies of likely anthropogenic origin recorded by magnetometer geophysical survey (PD1-080) - but also, by inference, other remains unknown at this time but broadly extrapolated from the baseline. This 2024 evaluation of specific 'known' areas of potential archaeology in the first instance (AAIs etc) sought to confirm the potential for significant impacts within the Electric Cable Corridor (ECC) where baseline evidence indicates a particular potential for impact. This is normal practice in that archaeological trial trenching routinely targets magnetometer geophysical anomalies and HER entries as a priority. From the results of the 2024 trial trenching work, appropriate mitigation measures set out within the (OWSI (PD1-052) and referenced within the ES (AS1-048 section 20.8) can be deployed in consultation with LCC through specific WSIs as per Requirement 17 of the draft Development Consent Order (dDCO). Also set out within the WSI was the targeting of a 'blank area' at the location of the Transition Joint Bays (TJBs). This acknowledged that in addition to targeting 'known' archaeology it is also routine to include the trial trenching evaluation of other areas and that in the circumstances of the project, these other areas should include the location of the TJB in the first instance. The 2024 trial trenching undertaken at the TJB provides confidence in the conclusions of the ES which expressed that no significant impacts to archaeological remains are predicted where preservation in situ is not possible (AS1-048, paragraph 133) i.e. at the location of the TJB. With regard to the Onshore Substation (OnSS) and this statement within the ES, the works undertaken separately under the geoarchaeological programme were anticipated to be sufficient to provide the same confidence, however on receipt of the results of the electromagnetism geophysical survey (provided in September 2024 – PD1-080), archaeological

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			trial trenches were added at the OnSS as part of the 2024 programme to provide the same confidence in respect to paragraph 133 of the ES chapter. On demobilisation in November 2024, 158 trial trenches were completed. The remaining trial trenches as set out within the agreed WSI will be rolled over into the next phase of trial trenching which will commence in Spring 2025. This phase will include additional trial trenches of blank areas and areas not subject to geophysical survey to inform the appropriate mitigation measures in accordance with the OWSI (PD1-052) to be approved by LCC through specific WSI secured by Requirement 17 of the draft Development Consent Order (DCO). As per the 2024 trenching, the results of all trenching outside of the location of the TJB and the OnSS will be able to trigger preservation in situ in accordance with section 9.7 of the OWSI, thus avoiding significant impact in accordance with paragraph 133 of the ES (AS1-048). The locations of all additional trial trenches will be agreed with LCC but will be informed primarily by updated deposit modelling which is currently being prepared by AOC Archaeology from the results of the 2024 geoarchaeological works and the results of electromagnetic geophysical survey. Both surveys will assist in locating additional trial trenches within areas of the Order Limits which hold archaeological potential. The results of electromagnetic geophysical survey and updated deposit modelling are supplementary to the findings of the ES and were not necessary for forming the ES' conclusions. Rather they will assist in designing final trial trenching to enable the most efficient deployment of mitigation works set out within the OWSI and in accordance with the conclusions of paragraph 133 of the ES. The 158 trial trenches excavated in 2024 included seven trenches at the location of the TJBs (2%) (also investigated by 9 geoarchaeological boreholes) and eleven trenches at the location of the OnSS (0.4%) (also investigated by 15 geoarchaeological boreholes and 19 slit trenches/test pits). A single sterile curvilinear ditch disturbed by land drains was recorded in one trench at the TJB. The archaeological trial trenches at the OnSS verified the presence of two paleochannels and a single modern ditch with trenches generally demonstrating the presence of topsoil/subsoil directly onto marine sands. At both locations this provides confidence in the conclusions of the ES which did not identify the potential for significant impacts at either of these locations. This is particularly notable at these two locations which are the only parts of the Order Limits where preservation in situ is not available in accordance with the mitigation options presented within the OWSI (PD1-052). Elsewhere within the Order Limits the trial trenching completed in 2024 included nine of the 14 AAI recorded by the magnetometer survey. Full assessment reporting from AOC Archaeology is pending but on the basis of monitoring and update reports the following findings are set out. AAI 1, AAI 8 and all historic farmstead locations – anomalies and locations investigated, and no impacts predicted i.e. no archaeology recorded. AAI 5 (HER MLI88895), AAI 6, AAI 7, part AAI 11 and other discrete isolated magnetometer anomalies – anomalies investigated, but no significant impacts predicted. Impacts will be

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			mitigated as necessary in agreement with LCC as per the OWSI (PD1-052 section 9.3, 9.4 or 9.6). AAI 2, AAI 10 (HER MLI90648) and AAI 13 (HER MLI98638-9): anomalies investigated, and significant impacts predicted as set out within the ES chapter (AS1-048 Table 20.9, line items 1 and 16 (AAI 13 being identified post Environmental Impact Assessment (EIA)). These remains will be mitigated as per the OWSI and may include preservation in situ to avoid impact (PD1-052 section 9.3, 9.4 or 9.7). In the event that archaeological recording is undertaken in lieu of preservation in situ, the impact will be offset by the release of heritage capital and the public benefit that this brings. AAI 3 – avoided through embedded trenchless techniques already confirmed in submission documents (089 Figure 3.4.10). AAI 4 (HER MLI98636), AAI 9, part AAI 11, AAI 12, AAI 14 – not completed during the 2024 campaign, and following agreement with the LCC will be 'rolled over' and carried out as part of a future campaign, it being noted that as per the 2024 trenching, the results of all trenching outside of the location of the TJB and the OnSS will be able to trigger preservation in situ in accordance with section 9.7 of the OWSI, thus avoiding significant impact in keeping with paragraph 133 of the ES (AS1-048). In summary, the results of the archaeological trial trenching have confirmed the lack of significant impact at the two locations of the Order Limits where significant impacts cannot be avoided through preservation in situ. Significant impacts identified within the ECC located between these two nodal points are in accordance with those predicted within the ES (AS1-048, Table 20.9). These impacts can be mitigated through a suite of mitigation options referenced within the ES which may include preservation in situ (AS1-048, Section 20.8 and Table 20.18). Final mitigation responses will be agreed through WSIs which accord with the OWSI and are approved by LCC in consultation with HE, as per Requirement 17 of the dDCO. Similarly, further archaeological trenching undertaken from 2025 will trigger the implementation of appropriate mitigation measures in full accordance with the OWSI which includes measures to avoid significant impacts through preservation in situ in full accordance with paragraph 133 of the ES. ***Geoarchaeological Works*** Geoarchaeological works were undertaken in accordance with a WSI prepared in consultation with the Historic England Regional Science Advisor. Results from the works will be used to update the deposit model submitted with the ES (APP 184), it being noted that the updated deposit modelling is supplementary to the findings of the ES and were not necessary for forming the ES' conclusions. Rather, it will assist in determining the most efficient deployment of preconstruction trial trenching to be undertaken from 2025 and thereafter the final

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			mitigation strategy in accordance with the Outline Written Scheme of Investigation and the Project's detailed design. Works comprised a watching brief of geotechnical works, 59 geoarchaeological boreholes and 80 slit trenches/test pits as well as a number of sondages excavated within the 158 trial trenches (machine dug excavations within trenches to test a stratigraphic sequence). Full reporting is pending with interim reporting expected to be available for Deadline 4, but with specific reference to the potential for significant impacts through disturbance to peat deposits at the TJB and the OnSS (AS1-048, Table 20.9 line item 6 and paragraph 95) no significant impacts are anticipated in accordance with the conclusions of the ES; peat deposits at the OnSS and the TJBs, c.8m and c.2m below ground respectively, do not exceed a thickness of c.10cm (AOC pers comm).
Q1 HE 1.2	The Applicant	**Basis for ES Conclusions** Historic England (HE) Written Representation (WR) [REP1-042 paragraphs 4.22 to 4.24] raises concerns with a number of the ES conclusions due to the partial completion of the survey work and the 'magnitude of evaluation and assessment still required post consent.' ▪ Provide a response to these concerns and describe the limitations inherent in the preevaluation assessment presented in the ES conclusions. ▪ Explain how the Examining Authority (ExA) can be confident that a robust assessment of the effects on archaeological remains has been carried out when only limited trial trenching has taken place to date.	The Applicant has set out the comments from Historic England for ease of reference: Historic England comment in Paragraph 4.22 (REP1-042) as follows: *"In the construction phase for all identified impacts the conclusion is "low to negligible adverse which is not significant in EIA terms" it is our advice that such blanket conclusions are based on assumptions made about the known historic environment and adoption of an avoidance strategy. The Applicant has also explained that pre-application data gathering was partially completed and therefore there is the risk that presently unknown elements of the historic environment will be encountered."* Paragraph 4.24 (REP1-042) as follows: *Table 13.16 (Summary of effects for Offshore Archaeology and Cultural Heritage) it is presently not possible for the Applicant to conclude no significant adverse residual effects on the impacts identified because of the partial completion of survey work (compensation areas). The ES therefore presents broad characterisation of the proposed areas as is considered acceptable for producing an EIA. The Applicant has stated that subsequent survey work is to be commissioned (if this project secures authorisation) to inform the design of the proposed development which demonstrates the limitations inherent in the pre-evaluation assessment presented"* Historic England's comment in Paragraph 4.23 (REP1-042) as follows: *"Section 13.10 (Cumulative Impact Assessment), paragraph 333 – We do not agree with the conclusion offered as we consider there to be significant issues regarding the loss of access to known and discovered sites due to exclusion caused by contemporary seabed infrastructure. Overall, we don't agree with the conclusion (paragraph 337) that the "…the magnitude of impact is assessed as negligible…" this downgraded assessment of impact and the resultant effects being classified as 'not significant' is misleading given the magnitude of evaluation and assessment still required post-consent to address the residual risks carried by all parties."* The Applicant has outlined the detailed and comprehensive geophysical assessments undertaken for the array area and ECC (Section 13.4 of Volume 3 Appendix 13.1 (APP-167). This results in a robust assessment of the potential impact of the Project, notwithstanding that

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			the offshore Artificial Nesting Structure (ANS) areas and areas for the creation and re-creation of biogenic reef have been subject to a desk-based assessment only as would usually be the case for marine licence applications for works of such scale. The Applicant considers the evaluation undertaken to date to be proportionate to the importance of the heritage assets and that it is sufficient to understand the potential impact of the proposal on their significance in accordance with Overarching National Policy Statement for Energy (EN-1), November 2023, Paragraph 5.9.10. The Applicant has undertaken a desk-based assessment within the Artificial Nesting Structure (ANS) area (Section 13.2.3 of Volume 3 Appendix 13.1 (APP-167) and has acknowledged that there is a likelihood that previously unidentified sites or features of archaeological interest or significance may be present in the areas where the data has not yet been obtained. There will be a maximum of 2 isolated structures (which will be within the parameters set out in section 6.6 of Chapter 3: Project Description (APP-058)) within the ANS areas and pre construction surveys will be focused on these areas. The Applicant is confident that due to relatively small size of the two ANS structures in comparison to the ANS area allocated for their installation that impacts on currently known, unidentified and undiscovered Historic Environment receptors can be avoided by micrositing of the structures following geophysical data collection and archaeological assessment as secured within Table 13.9 of Chapter 13 (APP-068), the Outline Marine Written Scheme of Investigation (APP-282) and Schedule 11 Part 2 (13). Details on the potential cumulative impacts of each relevant development is included in Section 13.10 of Chapter 13 Marine and Intertidal Archaeology (APP-068). Reference to other offshore wind farm developments is included in Sections 13.10.6 (APP-068) that outline the potential cumulative impacts on Historic Environment receptors (material and context) and that access could be prevented through the creation of physical barriers or imposing no-go zones that could inhibit further research and interpretation opportunities. For eventualities, such as loss of access, the project specific Outline Marine WSI (APP-282) outlines how potential impacts will be offset by data gathering and archaeological assessments. The evaluation and assessment required post-consent is secured within Table 13.9 of Chapter 13 (APP-068), the Outline Marine Written Scheme of Investigation (APP-282) and the dDCO Schedule 11 Part 2 (13). Heritage works undertaken post-consent but prior to the commencement of the construction phase will be detailed in activity specific Method Statements and agreed with Historic England and ensure that direct and indirect impacts are either avoided or offset by data collection. The Applicant has addressed comments on the robustness of the ES in RR-004.027 in LCC Relevant Representation (RR). From the results of geophysical survey and deposit modelling, predicted impacts to specific and other inferred remains are tabulated in full within the ES chapter (AS1-048 Table 20.9). These include impacts to specific receptors and potential receptors extrapolated from the baseline. Whilst trial trenching may assist in confirming/identifying specific receptors, no new significant impacts above and beyond those set out would be anticipated to be identified through trial trenching' i.e. Table 20.9 includes predicted impacts from baseline set out in full

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			within the Desk Based Assessment (APP 180-187). The impacts summarised within Table 20.9 capture all potential impacts from a professional assessment of baseline which has included field evaluation through geophysical survey and a review of LiDAR and deposit modelling. In this manner, the ES is robust in identifying potential impact. Of particular relevance, the archaeological trial trenching and the geoarchaeological boreholes undertaken post EIA have provided data confirming the lack of significant impact at the TJB and the OnSS (which are locations where the Project would not provide for preservation in situ). This is in full accordance with the conclusions of the ES (AS1-048 paragraphs 130 and 133). The robustness of the professional assessment of the baseline is borne out by this subsequent evidence. At all other locations any significant impacts confirmed through post EIA archaeological trial trenching and set out within the ES (AS1-048 Table 20.9) could be avoided through preservation in situ in accordance with the measures presented within the ES and the OWSI (AS1-048 section 20.8 and Table 20.18 and PD1-052) such that the conclusion at paragraph 133 of the ES is confirmed. The ES is robust in impact predictions with final agreement on the preferred mitigation from the options identified in the OWSI to be approved by LCC, informed, as relevant, by pre-construction trial trenching.
Q1 HE 1.3	Lincolnshire County Council (LCC)	LCC in its WR [REP1-043] considers archaeology of more than a local/regional significance could be damaged or disturbed. ▪ Explain why you consider this to be the case?	
Q1 HE 1.4	LCC HE	**Further Archaeological Surveys/Works** Further to the comments from LCC [RR-004] relating to the lack of evaluation at all levels (including aerial photographs, geophysical survey and trial trenching), can LCC and HE comment on: ▪ the Applicant's response to Relevant Representations – including details of geoarchaeological works [PD1-071, Section RR-027.006]; ▪ the Onshore Archaeological Geophysical Report [PD1-080]; and ▪ updated Requirement 17 of the draft Development Consent Order (dDCO) [AS1-024]	
Q1 HE 1.5	LCC HE	**Updated Onshore Outline Written Scheme of Investigation (OWSI) for Archaeological Works** Are you satisfied that the updated OWSI [PD1-052] provides sufficient detail on: ▪ preservation in situ and enforceable measures? ▪ determining the significance of archaeology which may be affected? ▪ contributing to knowledge and understanding, public benefit and public dissemination of information? Are you satisfied that it provides sufficient protection for unknown heritage/archaeological assets with appropriate mitigation in place to preserve such assets?	
Q1 HE 1.6	LCC HE	**Middlecott Almshouses** In light of [RR-084] Anthony Kindred and [RR-085] Lisa Kindred and the Applicant's response to Relevant Representations [PD1-071], clarify, with reasons, whether you consider the Applicant's conclusions in relation to the	

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		impact of vibration, noise and dust upon Middlecott Almshouses to be satisfactory	
Q1 HE 1.7	LCC	**Aerial Photographs** Please explain the additional information that could be gained using aerial photographs and set out how this might assist the Examination	
Q1 HE 1.8	LCC	**Emerging Regional Policy** LCC Relevant Representation [RR-004] mentions forthcoming archaeology regional policy in relation to trenching of impact zones. Please provide details of such policy and the current status of any documents	

1.13 Human Health

Table 1.13: Human Health

Question ID	Question addressed to	Question	Response
Human Health			
Q1 HH 1.1	The Applicant	**Electric and Magnetic Fields** Government policy is that exposure of the public should comply with the International Commission for Non-Ionizing Radiation Protection (ICNIRP) 1998 guidelines. Please show evidence of compliance with these guidelines, particularly in relation to concerns raised by Julie Ann Mason [REP1-051] in relation to the two fishing lakes, freshwater borehole and proposed caravan park	Chapter 30 of the Environmental Statement (ES) Human Health (APP-085), outlined that impacts from exposure to Electro Magnetic Field (EMF) alone and cumulatively across all phases of the Project had been scoped out of the assessment by the Planning Inspectorate on the basis that it could be demonstrated that all electrical infrastructure remained below negligible levels in line with the International Commission Non-Ionising Radiation Protection (ICNIRP) guidelines (2020). The Applicant undertook an EMF project assessment for the entirety of the route and concluded that all the electrical connection options assessed produced magnetic fields significantly below the ICNIRP public exposure limits and therefore met the criteria set out by the Planning Inspectorate to be scoped out of the ES. With regards to concerns raised in REP1-051, the Applicant met with Julie Ann Mason and her appointed land agent on 7th November 2023 where concerns over EMF were raised. The Applicant carried out a further EMF assessment for the Export Cable Crossing under the Caravan Park, a copy of which was included within REP1-051 and which confirms that the maximum magnetic field produced by the Project export cable circuits above the caravan park at KP11 is comparable or lower in size to the magnetic fields produced by normal domestic appliances. The conclusion of the report states that *"... the maximum EMF produced is significantly less than the relevant exposure limit*" and that "*All the electrical connection options assessed produced magnetic fields significantly below the ICNIRP public exposure limits. The maximum fields were only 0.39% of the exposure limit*." The Applicant has demonstrated that EMF should therefore not be an area of concern. The Applicant has continued to engage with the Interested Party.

1.14 Land Use, Geology and Ground Conditions

Table 1.14: Land Use, Geology and Ground Conditions

Question ID	Question addressed to	Question	Response
Land Use, Geology and Ground Conditions			
Q1 LU 1.1	Natural England (NE) East Lindsey District Council Boston Borough Council South Holland District Council	**Written Ministerial Statement (WMS) - Solar and protecting our Food Security and Best and Most Versatile (BMV) Land** Lincolnshire County Council's (LCC) Local Impact Report (LIR) [REP1-053] and Written Representation [REP1-043] state that the WMS made on 15 May 2024 (UIN HCWS466) is a relevant policy consideration for the Proposed Development. The Applicant's response to the same point in LCC's Relevant Representation [RR-004] is that the WMS "*is in reference to the impact that solar developments have upon BMV land, rather than renewable energy developments in general*" [PD1-071]. ▪ Is the WMS a relevant consideration for the Proposed Development? ▪ If so, explain why and what implications does it have?	
Q1 LU 1.2	The Applicant	**Onshore Export Cable Corridor (ECC) alternatives - Agricultural Land Classification (ALC)** Table 1 of the Erratum to Site Selection and Consideration of Alternatives [PD1-074] provides updated information to compare the provisional ALC for ECC options 1, 2 and 3 with cross reference to Figure 4.20 [APP-090]. However, the ExA notes that from the Applicant's response to the Relevant Representation [PD1-071] from TH Clements & Sons Ltd that *"…the route options presented in Figure 4.20 are a set of initial routes, which have been subject to further refinement. The key outcome of this consultation was the diversion of Option 1 to the north and west of the A52 (away from the very top-quality silty soils situated to the east of the A52 public highway, as suggested by TH Clements & Sons), which resulted in a significant reduction in the areas of Grade 1 ALC land being crossed by the final route."* ▪ Please provide a clear plan that identifies the final onshore ECC route alongside all alternatives considered. ▪ For each route identified on the plan, provide a table that clearly identifies the amount of provisional ALC by grade, in Hectares for each option.	Figure 1.14 Q1 LU 1.2 provides a clear plan of the 10 initial routes that were considered when undertaking the route selection for the ECC. Table 1.14 Q1 LU 1.2 provides the amount of ALC by grade for each of these initial routes, which assumed a uniform route width of 200m. This 200m was the width of the search route areas which were being considered at that time, which allowed for future refinement to the 80m corridor proposed in the application. In addition to responding directly to the factual request made by the ExA, the Applicant has also taken the opportunity to address the related concern raised by T.H. Clements in their Relevant Representation, that the Applicant did not apply weighting to the individual ALC Grades. To test the significance and implications of that concern, the Applicant has undertaken an exercise whereby it applied a weighting to each ALC Grade and ranked the route options based solely on the weighted results relating to ALC Grade. As can be seen from Table 1.14 Q1 LU 1.2, the option preferred by T.H. Clements, which goes around the north of Boston, comes 6th out of the 10 assessed using this approach, whereas the chosen route is ranked 2nd. The plan in Figure 1.14 Q1 LU 1.2 shows that the route which ranks 1st on this 'ALC only' approach was not chosen, although it is almost identical to the chosen route, except for an area of Grade 3 land near Thorpe St Peter, due to the higher number of residential receptors that could be affected and a significantly more complex engineering crossing of the Steeping River and Railway which would result in greater impacts and therefore constitute a less desirable option overall. This serves to illustrate the point that route

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			selection must be based on the consideration and balancing of a range of important factors.
Q1 LU 1.3	The Applicant	**Onshore Substation (OnSS) search area and use of BMV agricultural land** Please elaborate on the implications of increasing the distance of the area of search around the National Grid T-Junction that would be necessary to avoid Grade 1 agricultural land.	As presented on Figure 25.2.14 (AS1-060), the National Grid T-Junction is centred within an area of Grade 1 Agricultural land. The closest point to the T junction outside of Grade 1 (within ALC Grade 2 Land) is located 9.5km north of the T Junction (there is some Grade 2 land approximately 5.5km north-north-east of the T Junction, but this is on the banks of the River Welland and adjacent to the RSPB nature reserve, so was considered inappropriate for the siting of the OnSS). Such an increase in the search area around the National Grid T-Junction has a range of implications which resulted with a 3.5km search area , including the impact of increasing the the 400kV cable length and the overall 275kV export cable length. These impacts also have further consequences, including: ▪ Exceeding 400kV cable norms within the UK. Long 400kV cables are not typically used in industry for OFTO systems. ▪ Increased ECC route infrastructure length. ▪ Increased ECC route cable installation length ▪ Increase in amount and size of critical equipment at the OnSS. ▪ The need for additional equipment (reactors) in the NGSS substation. ▪ A shorter section of 400kV cable will enable more efficient cable system design. ▪ Increased risk of impact on system reliability, notably outages/blackouts. The technical issues are detailed in the Applicant's Onshore Electrical Systems Technical Note appended to this response.

Question ID	Question addressed to	Question	Response
			The Technical Note explains why it would not be reasonable or appropriate to increase the 3.5km search area around the National Grid T-Junction, due to viability, feasibility and reliability considerations. This arises due to constraints concerning both the 400kV transmission cable and the 275kV export cable. In respect of 400kV cable, the 3.5km search area for the OnSS around the National Grid T-Junction is already significantly in excess of normal industry practice and precedent. A longer 400kV cable route that goes beyond the 3.5km search area would be even further outside of normal industry practice and precedent, and it would increase the risk associated with the system design and its implementation. As to the 275kV cable between the landfall location and the OnSS, the ODOW route would be currently the longest onshore buried HVAC cable route anywhere in the UK or Europe. A 64km cable route length threshold exists based on multiple technical and practical constraints. This limits any search area which would result in an increase in 275kV length beyond this threshold .As it is required to do in terms of Schedule 9 of the Electricity Act 1989 ("Preservation of Amenity and Fisheries), in formulating the proposals, the Applicant has had regard to the desirability of preserving natural beauty, of conserving flora, fauna and geological or physiographical features of special interest and of protecting sites, buildings and objects of architectural, historic or archaeological interest; and has sought to mitigate any effect which the proposals would have on the natural beauty of the countryside or on any such flora, fauna, features, sites, buildings or objects. In addition to the viability, feasibility and reliability reasons explained in the Technical Note, the additional cable lengths and other equipment required in mitigation of technical issues would have adverse amenity implications.
Q1 LU 1.4	The Applicant	**ECC "working width" during construction** The Applicant's response to a Relevant Representation (RR) from TH Clements & Son provides further detail to explain the need for an 80m working width [PD1-071]. The Applicant explains that is required "*to allow the installation of the onshore export cables and all the associated works* *(including storage areas for topsoil and subsoil, drainage and a haul road to deliver equipment to the installation site from construction compounds) to be undertaken, enabling temporary and permanent work."* However, paragraph 49 of the Cable Statement [PD1-068] states that an 80m width is needed "*to provide sufficient design flexibility to allow for micro-siting…"* which suggests that not all of the components identified in its response to TH Clement & Sons Ltd will be needed. Paragraph 49 goes on to refer to details being agreed with "*affected third parties".* ▪ Is the 80m working width needed to provide design flexibility and allow micro-siting or will it be occupied by all of the components listed on pages 400 to 402 of PD1-071, or will this vary along the corridor? ▪ If design flexibility and micro-siting is to be applied, to what extent will landowners and agricultural tenants have the opportunity to influence	A full justification of the requirements for the working width was included as part of the Applicant's Responses to Relevant Representations at Procedural Deadline – 19 September 2024, RR-067.011 *'Justification for 'working width' during construction'.* A typical 80m working width is based on a maximum design scenario where it is possible for all components outlined in pages 400-402 to be present. The actual working width required will necessarily vary. There will be instances where the actual working corridor will be reduced from 80m as the maximum design scenario will not apply and the impact would be reduced accordingly. This could include: 1. Areas where the Applicant utilises trenchless techniques, as soil bunds are not required. 2. Areas of stable soils may result in a smaller footprint for soil bunds and therefore reduced width of working area, as they can be sloped at greater angles of repose. In instances where the width of the working area can be reduced this will be done with the surrounding land use and potential impacts in mind. Final management plans will be submitted to the relevant planning authority for approval prior to implementation which will provide the appropriate level of control and scrutiny, in particular the process of discharging of planning conditions would enable comment and the opportunity to input by interested persons should the discharging authority consider it appropriate. The Applicant cannot commit to landowners being party to the sign off of detailed plans (due

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		detailed design with a view to minimising adverse impacts on agriculture as far as possible?	the sheer amount of landowners and tenants involved, and the programme constraints on large infrastructure projects).
Q1 LU 1.5	The Applicant	**Severance of agricultural land during construction** Severance has been identified as a concern by TH Clements & Sons Ltd and Woodlands Farm (Kirton) Ltd [RR-067, RR-075 and REP1-050]. The Applicant's response [PD1-071] to TH Clements & Son Ltd states that its land agents have reviewed areas of land which may be severed as a result of construction activities. The response to Woodland Farm (Kirton) Ltd appears to suggest that Horizontal Directional Drilling (HDD) is proposed, in part, to address severance. The ExA notes that paragraph 277 of Chapter 25 of the Environmental Statement (ES) [AS1-050] states that severance impacts on operations can still be assessed and mitigated without full details of occupying tenants. The outline Code of Construction Practice (OCoCP) [PD1-038] refers to the preparation of a management plan for severed land to be agreed with land-owners and tenants but it is not identified in the Schedule of Mitigation [PD1-058] or Requirement (R)18 of the draft Development Consent Order (dDCO) [AS1-024]. ▪ Can the Applicant confirm if it has sought to engage with all relevant landowners and tenants to determine the amount of land that would be severed? If so, please provide details of the amount of land and implications for the conclusions in the ES. ▪ Please elaborate on the proposal for a management plan for severed land. Will this be a single plan or separate plans for individual owners or tenants? How is the commitment for these plans secured? Should it be specifically identified in the Schedule of Mitigation and dDCO?	The Applicant has committed to providing access to farmers across the working area thus avoiding severed land, as set out in Chapter 26. In the event that landowners consider these parcels of land unfarmable this will not affect the conclusions of the ES due to the temporary nature of the impacts and the relative size of the parcels in question. The Applicant has undertaken an initial review of land that may be considered by landowners impracticable to farm during the Applicant's construction works at that location. This review has been undertaken using the Maximum Design Scenario and is therefore at an unrefined stage and not an accurate representation of the final position, which is subject to detailed design. At this stage, it is not appropriate or meaningful to consult with Affected Persons regarding the potentially affected land. Once the Applicant has optimized designs and programmes in place, to reduce the effects of land severance, the Applicant will liaise with Affected Persons to agree the extent of severed land. Affected Parties are aware of this and those who have signed voluntary agreements have a clause confirming the process for agreeing areas of severed land. Section 5.13 of the Outline Code of Construction Practice (oCoCP) provides that a management plan for severed land will be implemented. The management plan for severed land is in essence an agreement between the Applicant and individual Affected Parties that outlines: i. The extent of any severed land ii. If the severed land can be accessed with the provision of a crossing point iii. The location(s) of any crossing points across the Applicant's working corridor iv. If the severed land can or cannot be economically and practically farmed v. Who will be responsible for the on-going management (including management of weed growth) of the area – Applicant or Affected Party vi. If the land will be left fallow, be planted with an alternative crop, or will be planted with a cover crop vii. Anticipated timescale until the land can be returned Accordingly, the management plan will take the form of separate plans with individual owners / tenants. The Applicant does not believe that this management plan needs to be separately included in the Schedule of Mitigation or dDCO. It is already committed to within the oCoCP so is adequately secured and can be regarded as embedded mitigation.
Q1 LU 1.6	The Applicant	**Trenchless techniques** The RR from Woodlands Farm (Kirton) Ltd [RR-075] identifies a preference for the use of HDD under farmland. The Applicant has confirmed that HDD is to be used in the northern field known as "Ying Yangs" [PD1-071]. ▪ Can the Applicant explain why HDD is to be applied in the northern field? Is this due to the need to avoid impacts on organic soil or to avoid severance? If not, why not.	The Applicant has indicated a preference to use trenchless techniques under the field known as "Ying Yang's" having undertaken an early site-specific assessment of the viability of use of trenchless techniques as part of the Applicant's ongoing consultation with the Affected Party. The assessment concluded that it was viable, economically and practically, to utilise a single trenchless technique installation under "Ying Yang's" rather than multiple installations under crossings WX-226, RTX-43, and WX-227 (as shown on Drawing

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		▪ Is HDD proposed in other locations to avoid impacts on agriculture including severance or soil? If not, why not?	41 of 51 on the Onshore Crossing Plan (document 2.18, version 4) due to the proximity of the crossings in relation to each other. The decision to utilise trenchless construction methodologies at this location was therefore not to avoid impacts on organic soil or to avoid severance. The Affected Party had also requested the use of trenchless construction methodologies on their field south of "Ying Yang's" however the Applicant's Assessment concluded that this was not feasible, from an economic, scheduling, and resource perspective and that the current proposal for open cut across this field is the optimum installation method. The Applicant will, as part of their Front End Engineering Design (FEED) and further detailed design, optimise the design and part of this will be to look at combining trenchless construction methodologies where it is economically and technically viable to do so. The Applicant is unable to commit to utilising trenchless construction methodologies to avoid impacts on agriculture, soil, and severance due to multiple factors including cost, availability, programme, and resource.
Q1 LU 1.7	The Applicant NE Lincolnshire County Council (LCC) East Lindsey District Council Boston Borough Council South Holland District Council	ALC and soil surveys NE Written Representation [REP1-063] maintains its position that the Applicant should present 'site specific', both detailed and semi detailed ALC surveys to inform the decision maker in their application of National Policy Statement (NPS) EN-3. The Applicant deems this to be unnecessary at it considers that it has assessed the worst-case scenario in the Environmental Statement (ES) by classifying all Grade 3 land as Grade 3a, therefore falling under the definition of BMV land. ▪ Explain with reasoning whether it is possible, in the Applicant's view, that land assumed to be Grade 2, 3 or 4 in the ES could be graded higher, when subject to survey? If not, why not? ▪ Have any ALC surveys been carried out in the vicinity that could be used to consider the accuracy of NE's Provisional ALC mapping? If so, provide further details and outline any implications. ▪ Can the Applicant point to any examples of similar Nationally Significant Infrastructure Projects being approved by the Secretary of State (SoS) in the absence of ALC surveys? If so, please outline the approach taken and the policy context at the time of approval. ▪ Can LCC and the Local Planning Authorities confirm if they consider it necessary for ALC and soil surveys to be carried out prior to the application being decided? Please provide reasoning with reference to policy and any parallels with other projects that the local authorities are aware of.	▪ ALC surveys utilise a considerably greater amount of site specific information to inform the grade of agricultural land than that used to develop the strategic NE data used to inform the ES. This includes: improved understanding of the soil from hand texturing, a soil profile detailed description and particle size distribution; local topography, microrelief, and drainage. All of these factors, along with site specific land management practices which may enhance or degrade soil productivity, could indicate conditions that could be both more or less conducive to farming than originally assumed. However, it is the view of the Applicant that site specific ALC surveys are not required to inform the EIA, as the conclusions of the EIA consider the potential for significant effects following the implementation of mitigation, which in this case is the execution of measures within an appropriate Soil Management Plan (SMP) by the construction contractor. Undertaking ALC surveys prior to consent will not change the likelihood of significant effects, as a worst-case scenario has been assumed for the baseline environment (that all land is BMV). As has been established by numerous prior DCO applications, it is common practice to finalise mitigation based on the options identified following consent, once more information about the project is available. ▪ The post 1988 ALC dataset on MAGIC indicates that the only published survey data available in the vicinity of the route is the Natural England "Agricultural Land Classification detailed Post 1988 ALC survey, North Sea Camp Frontage (ALCC05398)". This survey was undertaken in August 1998 and the dataset covers 262.6ha of land on the coast at North Sea Camp. This land is approximately 2km south east of the Onshore ECC route Section 10. The ALC grades reported within this survey do differ from the NE provisional ALC mapping as follows:

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			1) Some land mapped as Grade 1 has been downgraded to Grade 2, although some Grade 1 land is still recorded as present and, 2) In the northeastern part of the surveyed area known as the Delph, the provisional mapping indicates Grade 4 due to this area being marsh due to being regularly inundated by tidal waters. However, the 1998 ALC survey dataset indicates this has been upgraded to Grade 2. Given that this land is not in agricultural use we would question how this has been upgraded from Grade 4 to Grade 2. The implications of the 1998 ALC survey results indicate that the site specific ALC grade can vary from the provisionally mapped ALC grade, and can be upgraded as well as downgraded but generally provides a good indication. There are numerous examples of Nationally Significant Infrastructure Projects being approved by the Secretary of State (SoS) in the absence of ALC surveys. Some examples have been outlined below: <u>Hornsea Project Four Offshore Wind Farm.</u> See in particular Volume A3, Chapter 6: Land use and Agriculture Chapter [EN010098 – Hornsea Four Offshore Wind Farm APP-030]. Policy referenced at the time was the National Policy Statement (NPS) for Energy (EN-1; DECC 2011). In addition to: Countryside and Rights of Way Act (CRoW) 2000; The Commons Act 2006; The Environmental Stewardship (England) Regulations 2005 (as amended); Marine and Coastal Access Act 2009; The Wildlife and Countryside Act 1981 (as amended); Natural Environment White Paper 2011; and National Planning Policy Framework (NPPF) 2019. Hornsea Project Four Offshore Wind Farm Volume A3, Chapter 6: Land use and Agriculture Chapter stated in Table 6.4 “assessments have been based on the assumption that all Grade 3 land within the available ALC data is 3a (not 3b) – thereby falling in to the BMV category. This is a highly conservative and protective approach which overestimates the area of BMV land. As such it is considered that ALC surveys are not required”. Commitments were made in the Outline CoCP and Outline Soil Management Plan for the mitigation measures in relation to agricultural land and soils, which included pre-commencement soil surveys. As part of responses to Hornsea ExQ1 in March 2022 – SEL 1.5 Natural England stated “The publicly accessible ALC data is mainly to aid strategic and scoping assessments, and also to help determine survey effort and methodology. We would therefore have preferred it if ALCs surveys were part of the assessment. However, we are satisfied that there is a commitment to surveys and mitigation, and consider that this is adequate to prevent significant harm to BMV soils.” The Statement of Common Ground between the Hornsea Project Four and Natural England (Dated 10 August 2022, REP7-062, Page 22, Table 7 – G3.5-6.1.3) similarly demonstrates that NE preferred an approach that includes ALC surveys to be undertaken prior to DCO determination, but

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			accepted that "we [Natural England] are satisfied this can be dealt with as part of a planning condition." Sheringham Shoal and Dudgeon Offshore Wind Farm Extension Project. The assessments were undertaken and submitted during the currency of the 2011 NPS policy documents, however the revised 2023 NPS documents were published during the examination period. This project did not undertake ALC surveys pre-consent. As part of the assessment they assumed all land Grade 3 could be Grade 3a and therefore BMV, therefore assuming a worst case scenario. It is important to note that the Secretary of State mentioned in their decision (section 4.3) that there is nothing in the new NPS that would have changed the decision. Viking CCS Pipeline. Policy referenced at the time was the NPS EN-1 (DECC 2011) However, any differences within the draft NPS documents published in November 2023 were highlighted within Environmental Statement, Volume II - Chapter 10: Agriculture and Soils [EN070008 – Viking CCS Pipeline APP-052]. The chapter, paragraph 10.4.20 states that the provisional ALC mapping was used in conjunction with aerial photography to identify any land use change and development since the mapping was undertaken to obtain a more robust baseline for soils and agricultural land. To inform the assessment the provisional ALC mapping and the post 1988 ALC data were used, no surveys were undertaken. Triton Knoll Offshore Wind Farm has been used within representations as a comparative route in regard to soil types. The ExA's Report of Findings and Conclusions issued on 3rd June 2016 indicates that the order was recommended to be granted using solely provisional ALC data (the indication being Grade 3 is not broken down into subgrades), with no further indication that ALC Surveys were required.
Q1 LU 1.8	NE	**ALC assessment at a national scale** Is Natural England aware of any other projects that have provided an assessment of cumulative impacts in terms of ALC at a national scale as its RR [RR-045] requests?	
Q1 LU 1.9	The Applicant NE	**Peat identification and management** NE highlight a need for the Applicant to identify deep peat and peaty soils and to produce a Peat Management Plan with a strong recommendation that it should remain in situ [RR-045 and REP1- 063]. It states that, according to its data, there are records of deep peat within the area. The Applicant's response is that a review of publicly available data confirmed that no peat was present within the Order limits as shown on Figure 23.2 [AS1-058]. However, the ExA notes that Chapter 23 of the ES makes reference to "peat" or "peaty surface" in the description of the existing environment in ECC segments 1, 6 and 7 [APP-078]. **To NE :** ▪ Please provide any available records of peat in the area **To the Applicant:**	The peat references within the existing environment section are descriptions of the recorded soil types, which is sourced from the UK Soil Observatory datasets. The references to 'peaty surface' indicate that the soil may contain a layer or layers of partially decomposed organic matter. Peaty surfaces do not mean that the overarching deposit is peat. Peat has not been identified at this stage from publicly available UK Soil Observatory and National Soil Resources Institute data as generally used for initial ground condition investigations. The specific nature and requirements for peat fall outside of normal soil management guidance, in which case, if during pre-construction soil surveys peat is identified, a Peat Management Plan will be prepared, taking into account requirements of the National Planning Policy Framework (2023), the England Peat Action Plan (2021); and Decision support framework for peatland protection, the establishment of new woodland and re-establishment of existing woodland on peatland in England (2023).

Question ID	Question addressed to	Question	Response
		▪ Provide further detail to clarify the position that there is no peat present given the references in the Chapter 23 of the ES? ▪ Provide further details of how peat would be managed, if identified in future surveys? Please identify amendments to the outline Soil Management Plan (SMP) [PD1-040] as appropriate having regard to Natural England's advice that peat should remain in situ	The requirement for a Peat Management Plan, which would be produced in the event that peat is identified during post consent soil surveys, will be added to the OCoCP. The presence or absence of peat will be confirmed as part of the preconstruction soil surveys. The data resulting from the surveys would be reviewed by appropriate competent experts and appropriate management methodologies would be identified. Details of how peat would be managed would depend on the depths and condition of the peat, if identified. The peat management plan would include good practice guidance on excavation, re-use, storage, handling, reinstatement and monitoring and inspection.
Q1 LU 1.10	The Applicant Interested Parties	**Dust contamination** Concerns regarding the risk of dust contamination of crops during construction are raised by a number of landowners and agricultural businesses in their RRs. The Local Impact Report submitted by East Lindsey District Council, Boston Borough Council and South Holland District Council [REP1-052] also identifies the need for the effective management of dust and communication with landowners. The ExA notes that the local authorities deem the mitigation measures listed in Table 2.1 of the outline Air Quality Management Plan (AQMP) [APP-270] to be robust. The Applicant's response to RRs [PD1-071] identifies mitigation specified in the outline Construction Traffic Management Plan [APP-289], outline SMP [PD1-040] and the outline CoCP [PD1-038]. The latter refers to the implementation of a "Dust Management Plan" but this document is not identified in the Schedule of Mitigation [PD1-058] or in R18 of the dDCO [AS1-024]. ▪ Does the Applicant intend to produce a "Dust Management Plan"? If so, how would this plan be secured? Should it be identified in the Schedule of Mitigation and R18 of the dDCO? Will an outline Dust Management Plan be submitted into the Examination? If not, why not? ▪ The ExA notes that the Applicant met with the Land Interest Group (LIG) on 4 September to discuss concerns and the outline CoCP. Can Interested Parties please comment on the mitigation proposed by the Applicant and specify any additional measures that they consider to be necessary. ▪ Is the Applicant committed to implementing all of the measures identified in Table 2.1 of the outline AQMP which are identified as "highly recommended"? If so, should this be made clearer in the outline AQMP? ▪ Can the Applicant provide feedback on the approach and conclusions of the Technical Report: Dust Deposition Modelling submitted by TH Clements & Son Ltd with its Written Representation [REP1-050]? Does this report have any implications beyond the study area of the ES or for other plots not included in the TH Clements & Son Ltd assessment?	▪ Air quality emissions during the construction phase will be managed through an Air Quality Management Plan (AQMP), which will accord with the Outline AQMP (APP-270), secured under Requirement 18 of the DCO (Code of Construction Practice) (CoCP). The Applicant has prepared an AQMP [APP-270] to establish the overarching principles and management measures to be followed during the construction of the onshore elements of the Project. A final AQMP will be developed and tailored as part of the final CoCP for each stage of the onshore transmission works. Section 2 of the Outline AQMP presents the construction dust mitigation measures developed following the outcomes of the construction dust assessment (detailed within Chapter 19 Onshore Air Quality (AS1-046)). The reference to a Dust Management Plan was made in error and a standalone Dust Management Plan will therefore not be submitted as the relevant measures will be already provided in the AQMP. ▪ The Applicant notes this part of the question is addressed to Interested Parties. To be helpful, the Applicant would add that a draft of the Outline CoCP was issued for comment on 17th January 2024, with comments received on 1st February 2024. This feedback was included in the DCO submission of the Outline CoCP (APP-268). Post submission, a meeting was held on the 4th September 2024 with the Land Interest Group (LIG) to discuss the Outline CoCP, with limited feedback received on 8th November 2024. ▪ The Outline AQMP (APP-270) is part of the suite of documents associated with the Outline CoCP (APP-268) that outline the general principles and management measures to be followed during the construction of the onshore elements of the Project. The Applicant is committed to implementing all of the measures identified in Table 2.1 of the Outline AQMP (APP-270) as necessary. The final suite of controls will be established through the development and implementation of a final AQMP, as part of the final CoCP tailored to each onshore stage of works. Requirement 18 of the DCO secures that a final CoCP, incorporating a final AQMP, must be prepared, submitted to, and approved by the relevant planning authority following consultation as appropriate with relevant consultees, including Lincolnshire County Council, before any onshore construction works commence. The measures in Table 2.1 of the AQMP are primarily informed by the outcomes of the applied 2024 IAQM construction dust assessment, ensuring that mitigation measures are proportionate to the level of construction impact risk, thereby preventing significant effects on receptors. The

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			construction dust assessment will be refined and adjusted for specific stages of onshore works using detailed construction information to enhance the precision of mitigation measures, along with the latest assessment practices. The rationale for this approach is that, at this stage of project development , ahead of detailed design and appointment of a Principal Contractor, there is still flexibility in the design envelope, and design options may still be under consideration. By committing to developing a final AQMP as part of the final CoCP, the Applicant can refine and enhance mitigation strategies as detailed design develops. Requirement 18 of the draft DCO therefore secures that the final CoCP will align with the principles established in the Outline CoCP, providing reassurance regarding its scope and content. The Applicant is currently undertaking a thorough review of the air quality modelling report provided by T.H. Clements (REP1-050)) and intends to submit its findings at Deadline 3. At this stage, the Applicant has identified a number of assumptions within the report which it believes result in a significant over-estimation of potential dust impacts. These are summarised below. • The report makes unrealistic assumptions relating to the timing of the construction phase. It assumes that the whole of the Order Limits will be stripped of topsoil upon commencement of the construction phase, and excavation activities will be ongoing, continually, for the full construction programme. • The report fails to take account of the approximately one third of the total ECC which the Applicant has committed to construct using trenchless techniques. • The report has used an inappropriate methodology for modelling dust deposition. The method in question has been developed for arid regions of the globe such as South Africa and Australia, and as such is inappropriate for the temperate climate of south Lincolnshire. When these assumptions are compounded, they result in significant over estimates in potential impacts from dust, and as such, the Applicant is confident that the mitigation measures outlined in the Outline CoCP will be appropriate. Furthermore, in an effort to work together and share experience to mitigate any impacts on T.H. Clements, the Applicant has agreed to meet with their air quality expert to discuss concerns in an effort to find mutually agreeable practical solutions. The Applicant's assessment of air quality impacts, which includes impacts of dust, has been undertaken across the entire length of the ECC, including but not limited to land owned and farmed by T.H. Clements, and has concluded that there will be no adverse significant effects.
Q1 LU 1.11	The Applicant	**Stone contamination**	

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	Interested Parties	The ExA notes the concerns raised by multiple Interested Parties regarding the potential for stone contamination of Grade 1 soils and associated implications for agriculture. The Applicant responds [PD1-071] by referring to a commitment in the outline SMP to conduct post-construction soil surveys. If stones are present on land previously stone free, "*an aftercare programme (as outlined in section 5.11 of the oSMP) will be agreed upon, and remediation works will be undertaken.*". However, the outline SMP [PD1-040] does not appear to include a commitment to ensure that stone free land remains so after construction. ▪ Should the outline SMP include a specific commitment to ensure that land identified as stone free in pre-construction surveys is returned this condition post-construction? ▪ Can the Applicant elaborate on the reasons why it cannot commit to aluminium trackway being the primary method for haul roads? ▪ The Written Representation from TH Clements & Son Ltd [REP1-050] identifies issues apparent following the completion of other projects in the area, including Triton Knoll and Viking Link. Can the Applicant comment on the effectiveness of mitigation to avoid residual stone contamination on these projects and whether any lessons can be learned from them?	▪ Pre-construction soil surveys will provide site specific descriptions of soil type, condition, and depth. Soil descriptions include stoniness. A general commitment has been provided by the Applicant, as part of the outline SMP (section 5.10 Reinstatement) to return soils to their pre-construction condition, which includes returning soils identified as stone free in their stoneless state. Stone content will be assessed following recognised guidance as detailed within Hodgson, J 1997 Soil Survey field handbook. The Applicant will, at deadline 3, submit an updated oSMP to include a section for "Stone contamination" which will specifically address the inclusion of stone presence in the surveys and mitigation measures should stone be present. ▪ A temporary haul road system such as a trackway and other methods will be considered as the Applicant progresses into detailed engineering. However, the Applicant cannot commit to a single haul road method at this early stage as the detailed engineering has not commenced, and many factors must be considered, to allow for safe systems of work, vehicle movement, preventing damage to the ground strata, dust, reinstatement, etc. Factors to be considered include the nature/capacity of the bearing ground, supply chain reliability, maintenance (when in use), vehicle axle loads, rate of vehicle movement, duration of use (short/long term), etc. ▪ The Applicant has a representative on their team who has worked on the Triton Knoll project and has actively taken lessons learned as part of its development. The Applicant is also having full regard where practicable to lessons learned from the Viking Link project, for example in respect of landfall operations and temporary works along the cable route. The Triton Knoll main 220kV route was completed without significant issues in respect of residual stone along the 57km route; however, in the Written Representation from TH Clements & Son Ltd [REP1-050], which relates to the 2km 400kV route, the presence of aggregate in the ground was documented during the infrastructure installation period of the works. Stone picking works were completed at reinstatement to remove any residual aggregate from the sub-soil. ▪ The Applicant will reflect upon the lessons learnt and build on these experiences that will be factored into the detailed engineering design and construction methodology for managing and mitigating aggregate on the site.
Q1 LU 1.12	The Applicant	**Soil restoration** NE [RR-045] welcomes the commitment to produce a Decommissioning Plan in R24 of the dDCO [AS1-024] but request a commitment to restore land to its original condition and ALC grade. The Applicant's response [PD1-071] appears to be contradictory in stating that the Decommissioning Plan will "*confirm the detail of restoration required which will include the restoration of land to its original ALC Grade*" whilst going on to state that this would not be possible as it would *"…require the methodology for ALC assessment to remain the same (currently MAFF 1988 guidance), with no updates to climate data sets*.". The ExA notes that there does not appear to be any confirmation in R24 of the dDCO, the outline SMP [PD1-040] or the Schedule of Mitigation [PD1-058] that the Decommissioning Plan will provide any detail regarding soil restoration.	The Applicant clarifies and confirms that comments in respect of restoration as set out in the Applicant's response to Natural England's Relevant Representation [PD1-071] are applicable to the ECC Cable Corridor and the 400KV Cable Corridor. The Soil Management Plan (SMP), which will be produced in accordance with the Outline Soil Management Plan [APP-271] is a construction phase document and therefore it is not appropriate for it to deal with decommissioning matters, which will be covered by the onshore decommissioning plan which is required to be produced in accordance with Requirement 24 of the draft DCO, 6 months after the permanent cessation of commercial operation and will contain the specific details around proposed decommissioning.

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		▪ Should the outline SMP provide a specific commitment to restore agricultural land, to the same ALC grade (or equivalent future grade) to that identified in pre-construction surveys? If not, why not? ▪ Confirm if any such commitment would apply to the 26.38ha "permanent" land take, including the OnSS, as identified in Chapter 25 of the ES following decommissioning as well as the onshore ECC and 400kV cable corridor during operation? ▪ Should R24, outline SMP and the Schedule of Mitigation confirm the commitment for the Decommissioning Plan to restore soil?	At this stage, it is not possible to commit to restoring the land identified as "permanent" land take to agricultural use of the same grade upon decommissioning. Future land use requirements should be assessed at that time. Therefore, we do not agree that the outline SMP should include such a commitment. The Decommissioning Plan will review regulations and best practices at the time and propose appropriate methodologies to ensure that, where returned to agricultural use, soils will be returned to its pre-development quality as far as is reasonably practicable, as set out in section 5.10 of the Outline SMP. Decisions on future land use will also need to consider any habitats or species that may establish during operation and any future protections. The outline SMP aims to protect ecosystem services provided by soils, but committing to soil restoration for decommissioning at this stage is not possible due to uncertainties in future land use, habitats, and protections.
Q1 LU 1.13	The Applicant	**Soil aftercare and monitoring** Section 5.11 of the outline SMP [PD1-040] states that "It will be responsibility of the Soil Clerk of Works (SCoW) (or similar appointed person) to determine when the reinstatement standard has been met." Table 2 provides outline details of proposed monitoring but the frequency is not given. ▪ Will stakeholders, including landowners, be consulted to confirm that the reinstatement standard has been met? If so, how is this secured? If not, why not? ▪ Please provide further details of the frequency of proposed monitoring	▪ The outline SMP requires the Applicant to undertake both pre and post records of condition including soil testing (see section 2.4 outline SMP for soil testing types). These documents form the basis of the Applicant's assessment of reinstatement. The Applicant will liaise with landowners and their appointed agents regarding reinstatement to demonstrate compliance with the above noted standard as set out in section 5.10 (Reinstatement) of the outline SMP. In the event that the land is not deemed reinstated fully then the outline SMP states in para 97 that "The aftercare programme is to be agreed between the Contractor, landowner, and (if applicable) tenant farmer. It will clearly define who is responsible for which part of the programme." This mechanism ensure that Affected Parties are included in the process for certifying the land is reinstated. ▪ Soil assessments will be conducted in the first-year post-restoration in order to ensure soil, profiles, health and condition are restored, as outlined in sections 5.10 and 5.11 of the outline SMP (APP-274). Additional interventions will be agreed with the landowner if needed, and subsequent annual monitoring set out as required. As described within section 5.12 of the outline SMP (APP-274), annual reports will be prepared during the aftercare period. A minimum of one report will be prepared as the proposed minimum aftercare period is one year.
Q1 LU 1.14	The Applicant NE	**Soil handling** ▪ Should the outline SMP [PD1-040] include explicit reference to the need to follow the Institute of Quarrying's Good Practice for Handling Soils in Mineral Working in relation to soil handling? If not, why not? ▪ What are Natural England's comments on the Applicant's suggestion in its response to its Relevant Representation [PD1-071] that the winter working agreement (as per table 22.7 of Chapter 22 Onshore Ornithology [APP-077] would be beneficial to soil handling? Should this be identified in the outline SMP?	The outline SMP (PD1-040) states at paragraph 6 that it is based upon guidance contained within the Institute of Quarrying's Good Practice for Handling Soils in Mineral Working. Requirement 31 (Soil management plan) of the draft DCO (document 3.1, version 5) requires the submission of a soil management plan in respect of any stage of the onshore works, and that must accord with the outline SMP, therefore the final SMP will also follow the Institute of Quarrying's Good Practice for Handling Soils in Mineral Working (or such updated guidance as is available and the industry standard at the time). The outline SMP also follows best practice; and the Defra Construction Code of Practice for the Sustainable Use of Soils on Construction Sites.
Q1 LU 1.15	The Applicant LCC East Lindsey District Council	**Level of detail in the outline SMP** Interested Parties including NE and agricultural businesses have expressed concern regarding the level of detail provided in the outline SMP. The ExA notes that LCC's LIR [REP1-053] considers the outline SMP to be acceptable but goes on	The Applicant's position is that the outline SMP provides sufficient detail at this stage and provides sufficient reassurance to landowners and the ExA that any potential scenario can be resolved.

<table>
<tr><th>Question ID</th><th>Question addressed to</th><th>Question</th><th>Response</th></tr>
<tr><td></td><td>Boston Borough Council
South Holland District Council</td><td>to state that in populating the document, it will be necessary to identify the individual areas of land and the route for soil stripping, trenching, restoration as well as addressing soil challenges such as running sands and drainage in detail.
▪ Does the outline SMP provide sufficient detail at this stage? If not, please elaborate on specific additions that are necessary.</td><td>The Applicant provided the Land Interests Group (LIG) the opportunity to review the outline SMP prior to application submission. The LIG made a number of comments on the draft, as set out in the Applicant's Responses to Relevant Representations (PD1-071, RR012-004) and the Applicant made a number of amendments to address the LIG's comments (also as set out in the aforementioned response).

The LIG were then given a further opportunity to review the outline SMP following relevant representations, the feedback from which was received on 8 November 2024 and the details are outlined in the table below:

<table>
<tr><th>Topic</th><th>Detail of request</th><th>Applicant's response</th></tr>
<tr><td>Use of ALOs</td><td>Request to acknowledge that multiple ALOs may be required due to the size of the Project</td><td>The Applicant will ensure that the wording in the outline SMP and outline CoCP is amended to reflect there could be multiple ALOs.</td></tr>
<tr><td>Stone removal</td><td>Comment that there is no mention of stone removal or stone picking</td><td>The Applicant will add into the outline SMP mechanical or hand stone picking where required. An Updated outline SMP will be submitted at Deadline 3.</td></tr>
<tr><td>Coastal soils of Lincolnshire</td><td>Not enough confidence given that Applicant understands make up of soils and their complexity</td><td>The Applicant has reviewed but believes there is enough detail for an outline document.</td></tr>
<tr><td>Dust contamination</td><td>Dust is not referenced in the SMP or CoCP.</td><td>Applicant has explained that dust is covered under the outline Air Quality Management Plan</td></tr>
<tr><td>Soil specialist</td><td>LIG asked if this would be an independent party</td><td>ODOW will be hiring a suitably qualified soil specialist as the clerk of works. They cannot be wholly independent, as ODOW would be paying them, however they would provide the necessary specialist and objective expertise.</td></tr>
<tr><td>Outline to full document review</td><td>Suggested additional consultation to provide confidence to meeting obligations to hand soil back as found</td><td>The Applicant notes comments on the need for special consideration for the soils impacted by the works and the need to return the land to the landowner in the same</td></tr>
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</td></tr>
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Question ID	Question addressed to	Question	Response		
					condition prior to access being taken. The Project will therefore provide the SMP and the CoCP to the LIG when the detailed versions are being considered and the LIG will be provided 10 working days to respond with their comments. Comments will be taken on board by the Undertaker and alterations will be made where appropriate. The Applicant is happy to put this in writing to the LIG and add this to the commitments register. This is to be added into the outline CoCP and outline SMP at deadline 3.
Q1 LU 1.16	The Applicant	**Soil heating** TH Clements & Son Ltd [RR-067 and REP1-050] has identified concerns regarding the potential for soil heating from underground cables to result in crops growing at different rates with consequential impacts on harvesting. ▪ Please comment on the scientific studies quoted by TH Clements & Son Ltd as well as the photographic evidence of soil heating at Triton Knoll. ▪ What measures are in place along the Triton Knoll cable route to prevent soil heating? Do they differ from those identified for the Proposed Development?	The Applicant is confident that concerns regarding soil heating have been properly considered. The Applicant has reviewed the scientific studies referenced in the representations of TH Clements and Son Ltd on the adverse impact of electromagnetic radiation and heat from cables on the soil and its microorganisms, and the Applicant's comments on these scientific studies quoted are set out below: i. *Electromagnetic Radiation from Electronics Does Affect Plant Growth, Mahadevan A, Young g, 2020.* Plant germination and growth was found to be affected by Electromagnetic Radiation., However, the study is not comparable to the Project, it is based on two separate studies, the first on the effects of electromagnetic radiation from a nuclear reactor on the growth of Soya and secondly the effects on the growth rate of basil grown in cups adjacent to electronics such as mobile phones. Neither of these examples are comparable to the growth of vegetables above an HVAC cable. ii. *The effects of electromagnetic field radiation of extremely low frequency on growth parameters and nucleotide substitutions in L. minor clones, Ignataviciene I et al, 2022*. This study is not comparable, with no field studies on the effects on agricultural crops. This research involved exposing duckweed grown in petri dishes to EMF-generating coils at a 1.5m distance in a laboratory environment, with no consideration given to cable insulation. iii. *Enhancing sustainable plant production and food security: Understanding the mechanisms and impacts of electromagnetic fields, Ayesha S, et al, 2023*. Again, this report is not comparable, reviewing the effects of direct EMF radiation on germination, growth and pest control for sustainable food production, not the effects of underground cabling.		

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			A number of scientific studies have been carried out, where there were found to be negligible or no significant effects to soils and cropping. The following papers point towards an insignificant effect to crops by the installation of underground cables: i. *Bruggermann et al, 2015* – The study examines the heat dissipation effects of high-voltage underground cable systems on agricultural crops. Conducted at extreme heat loads, crops above the cables experienced a temperature increase in the root zone but showed no significant negative impact on yield. ii. *Feldwish et al, 2024* – The study investigates the impact of underground high-voltage direct current (HVDC) transmission cable installation on soil properties and agricultural yields along the Aachen-Liège Electricity Grid Overlay (ALEGrO) route. Despite construction-related disturbances, no significant long-term impacts on soil properties or crop yields were observed. iii. *Ahl et al, 2013* – The Reinshof underground cable simulation test, conducted since 2019, evaluates the impact of 380 kV AC underground cables on soil physical properties and agricultural yields under varying operational load scenarios. The study, based at the University of Göttingen, monitored soil temperature, moisture, and crop performance (winter wheat and oats) over three harvest years (2020-2022). Results show that soil temperature increased with depth near the cables during high load scenarios, but no significant long-term effects on soil moisture or yields were observed compared to control plots. The findings highlight that the cable's heat emissions do not negatively affect agricultural productivity under the tested conditions In addition to the fact that the research papers detailed above were actually carried out as field trials with growing crops, above cables, a variety of crop types have been assessed, including, potatoes, winter wheat, maize, and mustard, so covering a wide range of rooting depths. As a comparison to the evidence provided, as a member of the brassica species, Mustard taproots reach the greatest depth of 50 to 200cm, whereas Broccoli and Cauliflower have a much shorter tap root, reaching 30 to 50cm. Of all species assessed, Maize has the greatest taproot depth of 150 to 250cm. As described above, no negative effects have been found as part of published research, for crops rooting at and beyond cable depth. The Applicant notes the photographic evidence submitted by TH Clements but notes that the anecdotal observations from some fields along Triton Knoll's cable corridor have not been reported or observed in other fields along the length of the Triton Knoll cable route. The issues shown in the photographs could be down to multiple reasons including poor land drainage, poor soil management and reinstatement, or faults with the cable system. The Applicant understands that the developers of Triton Knoll have been liaising with the impacted landowner(s) but there has been no acceptance of liability that the reported issues are due to cable heating.

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			The Applicant does not know the detail of Triton Knoll's final cable arrangements and mitigation measures, however it is assumed they would have installed to a similar depth and made use of Cement Bound Sand (CBS) backfill, both of which are being utilised by the Applicant.
Q1 LU 1.17	The Applicant LCC East Lindsey District Council Boston Borough Council South Holland District Council	**Cable burial depth and potential implications** Table 8.5 of the Project Description [APP-058] states that the minimum trench depth to cable protection tile is 1.2m. However, the ExA notes that the Applicant refers to a minimum burial depth of 1.25m in its response to Relevant Representations [PD1-071]. "*Recently completed extensive ground investigations*" of the onshore ECC and 400kV cable corridor, including Fenland silts are also referenced by the Applicant. Nevertheless, the ExA notes that the results are intended to inform the detailed design stage. ▪ What is the proposed minimum burial depth of the onshore ECC and 400kV Cable? ▪ Can the details of the ground investigations be provided now? Do the results have any implications for cable depth? The Written Representation from TH Clement & Sons Ltd [REP1-050] provides further details and photographic evidence of potential issues that may arise from the proposed cable depth, including for drainage and the risk of farm machinery coming into contact with cabling after getting bogged down. Similar concerns are echoed in multiple other Relevant Representations, including, Brown & Co [RR-012], Hub Rural Ltd on behalf of The Holmes 1987 Pension Fund [RR-029], The Lincolnshire Association of Agricultural Valuers Land Interest Group [RR-035] and William Barker [RR-077] ▪ Can the Applicant comment on the additional evidence provided and identify any implications for its current approach? Should long term monitoring be undertaken as a precaution? ▪ Are LCC and the LPAs aware of any examples in the area where cable depth has presented similar issues raised by Interested Parties? ▪ Do Interested Parties have any evidence of cabling rising and moving from its intended position due to the nature of local soils?	The Applicant understands concerns raised regarding the silts and cable depths and had therefore deviated from the industry standard as set out for UK transmission assets (as detailed in the Energy Networks Association, Engineering Recommendation G57. Issue 2, 2019 clause 4.2) and agreed to a deeper minimum cable burial depth of 1.25m. A cable burial depth of 1.25m will mean the cable protection tile will be buried at 1.2m. The Applicant has carried out the following ground investigations during 2023 and 2024: i. Boreholes – 56 in total ii. Cone Penetration test (CPT) testing – 26 in total iii. Trial Pits - 60 in total iv. Hand-excavated inspection pits - 55 in total The Applicant summarises their findings below: i. Water table level: Across the ECC the water table was seasonally variable. The findings indicate generalised levels – Summer at 2m below ground level; Winter 0.5~1m below ground level. ii. Trench stability depth: Trenches were stable down to a depth 1.8m below ground level. At depths greater than 1.8m, with closer proximity to the water table, the ground became more unstable. iii. Land drainage depth: Drainage schemes were found at 0.8~1m below ground level. Drainage schemes impacted by the works were repaired and approved by the landowner. iv. Running silts: These are only identified below the water table level. They are not experienced above the water table level along the ECC route. v. Reinstatement: Was undertaken in line with best practice and stakeholder feedback. No issues have been reported and reinstatement was successful. vi. Soil management: The oSMP was adhered to and the management of soil was successful. The survey data will allow the Applicant to confirm, at the detailed design stage with the contractor (not appointed at this stage), that the assumptions made to date are correct and determine the appropriate installation methodology however the initial results from the ground investigations confirms the Applicant's assumptions made to date are correct and no proposed changes to cable depth are proposed. ▪ The Applicant notes the contents of REP1-050 in particular the photographic evidence showing farm machinery stuck in the field. The Applicant considers that these instances are not day to day farming activities and are one off localised incidents that are out of the ordinary. The Applicant notes that the photographs in Appendix 12 are not even from the same county. The Applicant notes that the photographs in Appendix 10 are not on land farmed by TH Clements but by

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			another party. The need for a party with such extensive experience of farming in this area to rely on photographs taken elsewhere is consistent with this not being a regular occurrence. The Applicant will respond in full to REP1-050 at deadline 3. The ExA may wish to note that over 94% of landowners along the cable corridor have signed Heads of Terms which details the cable depth as 1.25m indicating that the vast majority of landowners are content with this cable burial depth. The Applicant maintains the position that a cable burial depth of 1.25m is sufficient and no further action including on-going monitoring is required.
Q1 LU 1.18	The Applicant	**Agricultural drainage and irrigation** Section 5.14 of the outline CoCP [PD1-038] states that the project has contracted a local drainage consultant to collate land drainage plans and design pre and post construction drainage schemes which will allow drainage to be maintained during construction. R18 of the dDCO specifies that the CoCP must be approved by the relevant LPAs in consultation with bodies including the Environment Agency. However, the ExA notes that in responding to Relevant Representations [PD1-071], the Applicant also states that *"Once post construction drainage plans are drafted they will be shared with the landowners and their comment sought. The Applicant will have regard to the comments provided and, where necessary, revised plans".* ▪ How is the commitment to consult with landowners secured? The Applicant's responses to RRs also acknowledge that there may be instances where existing drainage schemes cannot be reinstated post construction, and it may be necessary for part or whole fields to be re-drained. The outline CoCP does not appear to address this scenario. ▪ Please provide further details of how this scenario would be managed and how the necessary measures are secured.	▪ The Applicant will update the oCoCP at deadline 3 to capture the commitment to consult with landowners. ▪ The Applicant will update the oCoCP, at deadline 3, to outline a comprehensive process in instances where a post-construction drainage plan indicates part or full field to be re-drained. This process is already agreed in the voluntary agreements and will be mirrored in the CoCP, (which is secured by requirement 18 of the DCO).
Q1 LU 1.19	The Applicant	**Organic farming** The RR submitted by Woodlands Farm (Kirton) Limited [RR-075] identifies numerous issues relating to the potential implications of the Proposed Development for the organic farm. The Applicant's subsequent [PD1-071] response provides some clarification but further information is sought by the ExA. ▪ When will the Organic Land Protocol be made available for consideration in the Examination? ▪ Will the Organic Land Protocol include mitigation measures suggested by the Applicant in response to Woodlands Farm (Kirton) Limited's RR that are not referenced in the current outline SMP [PD1-040] or outline CoCP [PD1-038] e.g. the use of buffer zones to avoid contamination? ▪ Please confirm which other organic farms might be impacted by the Proposed Development? ▪ Are all relevant landowners or tenants currently involved in the drafting of the Organic Land Protocol?	▪ The Organic Land Protocol will be submitted at Deadline 3 as an appendix to the outline CoCP. It cannot be provided at deadline 2 as some Affected Parties currently have the document for review and comment, and we wish to incorporate all comments in one update. ▪ The Applicant met Andrew Dennis and his farm manager (Neil Wilson) on the 14th November 2024 to discuss the points raised in RR-075 and the points made by Mr Wilson during the Open Floor Hearing held on 10th October 2024. The Organic Land Protocol will include the appropriate mitigation measures as agreed between parties to ensure compliance with UK Organic Certification requirements, ▪ The following affected persons also have organic land which will be impacted by the Proposed Development: i) A E Lenton Ltd – plot numbers 34-007, 34-008, 34-009, 34-010, 39-016, 39-017, 39-021, 40-001 & 40-002. ii) Christopher William Edwards & Jane Edwards & John Frank Edwards & Robert John Edwards – plot numbers 23-005 & 23-006 iii) John Frank Edwards – plot numbers 23-016 & 23-017

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		▪ Should Section 3.2.9 of the outline Construction Traffic Management Plan [APP-289] cross refer to the forthcoming Organic Land Protocol? Please suggest amendments as appropriate. ▪ What is the Applicant's proposed soil recovery period which it considers to be "minimal", with mitigation? ▪ Provide further details of the "strategy for cropping post-construction works" upon which agreement is sought with the landowner. What role will this play? How is the strategy secured? Is similar consideration of cropping being given to other farms? If not, why not?	iv)George Henry Danby & John Arthur Danby – plot numbers 21-009, 21-010, 22-008, 22-009, 22-010, 22-016, 22-017, 22-018, 22-020. The Applicant confirms The Organic Land Protocol has been shared with all relevant landowners or tenants to provide comment and input on the drafting. ▪ The Applicant notes the missing link to the CTMP and will submit an updated CTMP for deadline 3. ▪ The "minimal" soil recovery period is assessed as one year. Soil assessments will be undertaken at year one. Where it is found that soil health and condition has not returned to its baseline condition pre-construction, further actions will be agreed with the farmer / landowner, with ongoing assessments agreed for a further year, until the point of equilibrium is reached. The Organic Land Protocol will include Soil Assessment methods, and Restoration and Aftercare Programme. The applicant has committed to agreeing actual assessment, restoration and aftercare methods from the Organic Land Protocol on an individual basis. ▪ With all farms within the order limits, the strategy for "cropping post-construction" takes into account the farmer / landowners current crop rotation. The rotation may be more flexible for conventional cropping where no restrictions are placed on the use of synthetic fertilisers and chemicals . For organic farms, where inputs are limited through organic regulations to natural or naturally sourced fertilisers and soil conditioners, greater consideration needs to be provided to the use of fertility building crops, and the nutrient balance through an established rotation. At this stage a "strategy for cropping post-construction works" cannot be defined. Estimations of crop rotations are being discussed with farmers / landowners concerned, although the actual point of the rotation affected cannot be ascertained until after approval and timescales for sitework is known. The applicant is committed to taking into account the projected crops, and cover crops (including leys) required to return soils to their baseline conditions. As previously described, this will be monitored through assessment at year one post-construction, and as required thereafter. The applicant has committed to agree all measures with famers and landowners on an individual basis. The OLP is designed for farms certified as organic with a UK Organic Control Body, where it is recognised that rotations are less flexible, and do not allow the benefit of conventional farming inputs.
Q1 LU 1.20	The Applicant	**Identification of open space** "OS Open greenspace" is mapped in Figure 25.3 of the ES [AS1-060]. Paragraph 45 of Chapter 25 of the ES refers to examples of "greenspace" but playing fields are not listed and individual sites identified in Figure 25.3 are not always labelled. ▪ Clarify how Figure 25.3 and Chapter 25 of the ES relate to open space as envisaged by NPS EN-1 section 5.11. ▪ Does Figure 25.3 identify the Fosdyke Playing Field [RR-022]?	With regards to open space as envisaged by NPS EN-1 section 5.11, these definitions are included as receptors within the 'OS Greenspace Sites' dataset, other than waterbodies which were also included within the assessment, albeit under a different subheading. Further efforts were made to include sites which were not provided by the dataset into the assessment, including the Lincolnshire Coastal Country Park, Wolla Bank Beach and several areas of greenspace with ecological purposes such as Local Nature Reserves and Wildlife Sites.

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			Figure 25.3 (AS1-060) and Chapter 25 of the ES (AS1-050) used the 'OS Greenspace Sites' dataset to analyse the locations of several types of greenspace, including playing fields, with Paragraph 45 not being an exhaustive list. As per paragraph 19, the land use assessment considers receptors within the Order Limits, as those could be temporarily or permanently impacted directly by the proposed development, which could result in an effect to the usage of the receptor. The receptors provided by the OS dataset showed that none were located within the Order Limits and, therefore, not considered within the assessment as per the boundaries agreed by stakeholders, noted in Paragraph 20. As these receptors were not present within the assessment, labelling within Figure 25.3 was reduced to those which were not provided by the OS background mapping in order to avoid creating too much 'noise' within the figures and reducing the focus from other receptors which had been considered. The absence of playing fields within the Order Limits was expected. Greenspace such as playing fields are typically expected to be located within or in proximity to residential areas, however, residential areas have been deliberately avoided in the routing of the ECC. With regard to the Fosdyke PLaying Field, this is not identified on Figure 25.3 on the basis that the Order Limits are more than 100m from the boundary of the playing fields at the nearest point, as set out in the Applicant's response to RR-022.001 set out within The Applicant's Responses to Relevant Representations (PD1-071).
Q1 LU 1.21	The Applicant	**Outdoor recreational land** Chapter 25 of the ES [AS1-050] identifies negligible adverse effects for outdoor recreational land. Paragraph 305 identifies medium sensitivity on a site with planning permission for up to 62 static caravans. Having regard to the Written Representation submitted by Julie Ann Mason [REP1- 051], please provide comments on any implications that may arise for the conclusions in the ES.	Having considered the Written Representation of Julie Ann Mason (REP1051), the Applicant does not consider that this has any implications for the conclusions of the ES. As detailed in section 4.2 of the Electromagnetic Field Assessment for Export Cable Crossing Under Caravan Park at KP11 – Technical Note, submitted by Julie Ann Mason as part of the Written Representation made at Deadline 1: *The ODOW export cables would be assessed as having an adverse effect if non-compliance with the EMF exposure limits was demonstrated, using the principles set out in Codes of Practice.* *Conversely, as specified in NPS EN-5, if the proposed projects comply with the exposure limits, EMF effects are assessed as not significant, and no mitigation is necessary.* The conclusion of the report states that *"... the maximum EMF produced is significantly less than the relevant exposure limit*." and that "*All the electrical connection options assessed produced magnetic fields significantly below the ICNIRP public exposure limits"*. Chapter 30 of the Environmental Statement (ES) Human Health (APP-085), explained that impacts from exposure to Electro Magnetic Field (EMF) alone and cumulatively across all phases of the Project had been scoped out of the assessment by the Planning Inspectorate on the basis that it could be demonstrated that all electrical infrastructure remained

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			below negligible levels in line with the International Commission Non-Ionising Radiation Protection (ICNIRP) guidelines (2020). The Applicant undertook an EMF project assessment for the entirety of the route and concluded that all the electrical connection options assessed produced magnetic fields significantly below the ICNIRP public exposure limits and therefore met the criteria set out by the Planning Inspectorate to be scoped out of the ES. The Applicant will respond in detail to all Written Representations in full at Deadline 3, per the examination timetable.
Q1 LU 1.22	The Applicant	**"Frack-out" management** The ExA notes Natural England's request [RR-045] for the outline Pollution Prevention and Emergency Incident Response Plan (PPEIRP) [APP-272] to refer to Sea Bank Clay Pits Site of Special Scientific Interest (SSSI) to ensure its features are included as sensitive ecological receptors in the final PPEIRP risk assessment for the use of drilling fluid. The Applicant's position is that such details are the responsibility of the contractor responsible for the preparation of the final PPEIRP. ▪ Having regard to relevant policy, including NPS EN-1 paragraph 5.4.50, can the Applicant explain how the ExA or SoS can have confidence that the risk assessment will consider the SSSI or that any necessary mitigation is secured?	The final PPEIRP will be prepared by the contractor, to reflect the actual methodologies and assessment of risks. The plan is secured through draft DCO (PD1-024) Requirement 18 (2) (i) which requires the plan to be submitted for approval by the relevant planning authority, in consultation with (as appropriate): - Lincolnshire County Council - The Environment Agency - The relevant Statutory Nature Conservation Authority. The Applicant believes that it is therefore not necessary to refer to any specific sites in the outline plan, as the relevant authorities are party to the approval process of the final plan and can respond accordingly at that stage if any important sites are omitted. The Applicant also notes that the PPEIRP is part of a suite of plans required as part of the Code of Construction Practice (CoCP), including the Water Quality Management and Mitigation Plan (WQM&MP). The outline CoCP (document 8.1, version 3) has been updated to include a commitment to update the Groundwater Risk Assessment (APP-210). The GWRA identifies Sea Bank Clay Pits as a sensitive, designated feature with a potential for a groundwater link, and 24.7.2 gives a Location Specific Conceptual Site Model (CSM). The GWRA will be updated prior to the finalisation of the WQM&MP, which will address the monitoring requirements. Sensitivities identified through the GWRA and WQM&MP will be carried forward into the PPEIRP. The updated oCoCP, securing the update to the GWRA and its incorporation as an appendix to the WQM&MP has been submitted at Deadline 2
Q1 LU 1.23	NE	**Scoping and pollution management** Can NE comment on the Applicant's response to its Relevant Representations [PD1-071] regarding the scoping of Chapter 23 of the ES (NE reference H19) and pollution management (NE reference H22)?	
Q1 LU 1.24	The Applicant	**Ground investigation at landfall** ▪ Provide further details of the lessons learned from Triton Knoll in relation to construction at landfall as identified in response to NE's RR [RR-045]. ▪ Provide further details of the pre-construction ground investigations undertaken in July 2024 "*to avoid unforeseen direct or indirect impacts on Chapel Point to Wolla Bank SSSI*"	▪ The Applicant has employed an engineer who has previously been involved in the construction of the Triton Knoll landfall and therefore has been able to bring experience and lessons learned from the Triton Knoll landfall construction works, which are embedded in the development and design philosophy, and these lessons will be important factors as the Applicant progresses into detailed engineering with a focus on drillability and drilling fluid management. Although detailed engineering has yet to commence, lessons learned are embedded into the principles for the landfall works as this is taken forward, including the noise

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		▪ Clarify whether any revisions are required to the outline CoCP [PD1-038] to reflect any findings and to ensure that necessary measures are implemented?	bund for the drilling operations, the controlled launch of the drill for an extended casing down to a suitable depth, reviewing the drilling methodologies and tooling to manage downhole drilling to work with tidal movement and look to prevent frac-outs as experienced on Triton Knoll, clear communication with key stakeholders on the design and installation path, detailed emergency reaction plan that is robust and agreed, and early site investigation works with near-shore and onshore boreholes to better understand the ground for the detailed engineering. ▪ In July 2023, the Applicant installed a 20m deep borehole within the Lincolnshire Wildlife Trust (LWT) land to collect geotechnical information and followed this with monthly water level monitoring until July 2024. ▪ Further 'near-shore' investigations were carried out in July 2024 along the route of the landfall HDD. The drilling contractor will use the information regarding the soils and hydrological regime to prepare a detailed plan for managing the drilling operation, particularly the optimum depth of installation, use of a casing, type of drilling fluids used, fluid pressure, and monitoring regime. The Applicant has committed to update the Ground Water Risk Assessment (APP-210) to inform the Water Quality Monitoring and Management Plan (WQM&MP) which is secured through the outline Code of Construction Practice (document 8.1, version 3). This plan will detail where water monitoring will be carried out before, during and after construction. It is assumed that further monitoring will take place along the route of the landfall cables in advance of construction. The Applicant has also submitted an outline Pollution Prevention and Emergency Incident Response Plan (PPEIRP) (APP-272) which will be finalised and submitted for approval in accordance with Requirement 18(2) (i) of the draft DCO (document 3.1, version 5) under the Code of Construction Practice. Measures to minimise the impact of any unplanned event will be detailed in this plan. ▪ The Applicant confirms that there is no requirement to update the oCOCP (PD1-038) as a result of the ground investigations that it has carried out, as this has not changed its assumptions regarding the general methodology for the landfall cable installation process. However, the Applicant has updated the outline COCP to include reference to the GWRA being updated prior to the preparation of the final WQM&MP.
Q1 LU 1.25	The Applicant	**Construction Environmental Management Plan** Paragraph 345 of Chapter 23 of the ES [APP-078] refers to a Construction Environmental Management Plan (CEMP) to set out procedures to address contamination. This is not referenced anywhere else other than the abbreviations table. Should paragraph 345 refer to the Contaminated Land and Groundwater Management Plan or outline CoCP [PD1-038] instead? If not, provide signposting which sets out how the CEMP would be secured in the dDCO.	The Applicant confirms that this is an error. The Applicant has committed to producing a Contaminated Land and Groundwater plan, referenced in section 5.6 of the outline Code of Construction Practice (CoCP) (document 8.1, version 3) and secured through Requirement 16 (Contaminated land and groundwater) of the draft DCO (document 3.1, version 5). The reference should refer to the Contaminated Land and Groundwater Plan.
Q1 LU 1.26	The Applicant	**Mitigation relating to geology and ground conditions**	

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		▪ Should the list of mitigation measures listed in paragraph 58 of the outline CoCP [PD1-038] more closely reflect Table 23.19 in the ES [APP-078]? If not, why not? ▪ What is the basis of the 25m buffer distance cited in Table 23.19 for micro-siting of cabling?	The mitigation measures in Table 23.19 in the ES [APP-078] that are not listed in paragraph 58 of the outline CoCP [PD1-038] are covered in other outline documents such as the Outline Site Waste Management Plan [APP-274] and Outline Soil Management Plan [APP-271]. Therefore, it is not necessary to include in the outline CoCP every mitigation measure presented in Table 23.19. It is acknowledged that the wording of the description of the measures differs between the two documents, but there are not considered to be any significant differences or omissions, when the oCOCP is read together with the context of the other supporting plans referred to above. The 25-meter buffer near areas of potential contamination is generally a precaution based on guidance and professional experience. Although guidance does not specify distances the maintenance of this buffer where reasonably practicable is considered appropriate to prevent the direct exposure of contaminants and mitigate their potential to spread. Whilst efforts will be made to avoid contaminated land by micro-siting, where possible, all contaminated land within the order limits will be managed in accordance with the scheme required by draft DCO (document 3.1 version 5) Requirement 16 and outlined in Section 5.6 of the outline Code of Construction Practice (document 8.1 version 3)
Q1 LU 1.27	The Applicant	**Geodiversity Management Strategy** Please confirm which, if any, documents are intended to function as Geodiversity Management Strategy as specified in NPS EN-1. If no such strategy is to be provided, please provide justification.	National Policy Statement EN-1 encourages applicants to produce and implement a Geodiversity Management Strategy "where appropriate". A judgment is therefore required for each project as to whether such a strategy is appropriate on the facts of the case, over and above other relevant mitigation measures. Such a strategy is typically considered to be appropriate in circumstances where required for projects under National Policy Statement EN-1 if the development could significantly adversely impact geological features or processes , non-statutory Local Geographical Sites or SSSIs designated for their geological interest) The effects on geodiversity in this case are considered within Chapter 23 Geology and Ground Conditions Geology and Ground Conditions (APP-078). Overall, through the implementation of mitigation measures, including those specified in the OCoCP (document 8.1, version 5), it is considered that the likely overall effect of the Project on geodiversity and land use throughout the construction, operation and decommissioning of the Project is not significant in EIA terms. There is no proposed above ground infrastructure located within the intertidal area where the Lincolnshire Coast Submerged Forest Local Geological Site is identified, thereby removing any interaction or effect on geological and soil receptors in the intertidal area. The Applicant's primary interaction with subsurface materials is related to standard construction practices, such as HDD, which do not adversely impact geologically sensitive areas. The mitigation by avoidance approach has been taken for the Chapel Point – Wolla Bank Site SSSI & GCR site related to geology which lies 200m beyond the Order Limits. It is therefore considered that the geodiversity impacts of ODOW are not significant and localised, the inclusion of a specific Geodiversity Management Strategy is not considered necessary, and the potential impacts identified are capable of being adequately addressed through the implementation of measures secured elsewhere such as those in the oCoCP.

1.15 Landscape and Visual Effects

Table 1.15: Landscape and Visual Effects

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Landscape and Visual Effects			
Q1 LV 1.1	The Applicant Local Planning Authorities (LPA)	**Landscape mitigation during the construction phase** Environmental Statement (ES) Chapter 28 [APP-083 Table 7.1] identifies significant effects on residents on Croft Bank, Bleak House Farm and Fosdyke Bridge during the construction phase and significant effects for road users, walkers and horse riders. It would appear from the ES [APP-083 Section 5.4] that construction phase mitigation is limited and relies upon sensitive siting and that there are no specific intentions to provide landscape mitigation, including for Temporary Construction Compounds (TCC) and Cable Installation Compounds (CIC). is this interpretation correct or, if not, signpost where specific mitigation would take place to reduce the visual impression of the compounds within the landscape? if the interpretation is correct, provide reasoning which justifies why it would be appropriate to have such significant construction features in the landscape without dedicated visual mitigation, given that they could well be in place for 48 months (4 years)? LPA may also respond.	The careful siting of the onshore cable corridor and associated Temporary Construction Compounds (TCC) and Cable Installation Compounds (CIC), combined with the extensive use of trenchless techniques, has avoided significant effects arising with respect to the majority of the visual receptors along this route, including residents, road-users, walkers and horse-riders. The TCCs and CICs have been carefully sited to minimise potential effects on local landscape character and nearby visual receptors as set out in paragraph 82 of the LVIA [APP-083]. This has been achieved through using existing vegetation for screening and / or locating the TCCs and CICs as far from visual receptors as is practicable. There are a number of refinements that will be made to the Project post consent, that will help to reduce the magnitude of change associated with the TCCs and CICs. The assessment is based on a 'maximum design envelope' meaning that the dimensions of the TCCs and CICs are potentially larger than what will ultimately be required to enable construction. There will be the opportunity to refine the siting of the TCCs and CICs within the defined order limits, especially if the required land take is reduced and there is an opportunity to increase separation distances from properties or PRoWs and / or use existing vegetation as a full or partial screen. All compounds will be constructed in line with the Outline Code of Construction Practice (CoCP) and will be required to support the construction of the onshore aspects of the Project. The Applicant intends to reduce the visual impression of the construction compounds. The mitigation proposed considers the temporary nature of the facilities and will be completed upon mobilisation to the site. The intent is to ensure reinstatement to the as-found condition. Final detailing will be addressed at the detailed design stage and could include the following measures for the locations highlighted within the question if considered appropriate: • Croft Bank: The strategic placement of a physical barrier, such as a soil bund (sealed and seeded) or solid hoarding, to the east of the compound or to screen other key views. • Bleak House Farm: The strategic placement of a physical barrier, such as a soil bund (sealed and seeded) or solid hoarding, to the north of the compound. • Fosdyke Bridge: The strategic placement of a physical barrier, such as a soil bund (sealed and seeded) or solid hoarding, to the east of the compound.

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			The layout of infrastructure within the construction compounds can be arranged such that larger components are sited further away or behind existing screening to moderate the overall visual effect. The Applicant will provide an update to the relevant sections of the Outline CoCP at Deadline 3 to take account of the above.
Q1 LV 1.2	Lincolnshire County Council (LCC) The Applicant	**Construction traffic** LCC state that '*the assessment of effects on the existing landscape fabric of the study area, has been under considered given the small local road network and the scale of the construction traffic for the Onshore Substation (OnSS*)' [REP1-053] LCC is requested to expand on this concern to provide further specific detail and what it considers the assessment of effects should be? The Applicant may also respond.	The Applicant notes that the ExA has requested that LCC provides further details relating to its concerns regarding the consideration given to the small local road network, within the Landscape and Visual assessment. Therefore, the Applicant is not responding at this stage but will address this if further details become available.
Q1 LV 1.3	LPA The Applicant	**Residential Receptors** A Residential Visual Amenity Assessment (RVAA) has not been undertaken. LPA, is this a reasonable approach? LPA, what weight should be given to private views from residential properties in the Examination, in the ExA's considerations and in the Secretary of States (SoS) decision? The Applicant may also respond.	The views of local residents have been a key consideration in the siting of the onshore substation in a sparsely populated rural area, with good separation from existing properties and public facilities. In the assessment of visual effects, the effects on local residents have been a central part of the assessment, especially in light of the sensitivity of residents as visual receptors. Also, in the design of the mitigation planting, the visual amenity of residents has been a priority, as realised through the proposal for substantial planting with the express intention of reducing the visual effects experienced by local residents. The assessment of the effects on residents is presented in Section 7.3 of the LVIA [APP-083]. There has previously been no request to undertake a Residential Visual Amenity Assessment (RVAA) by any of the statutory consultees, or through the Scoping Opinion issued by the Planning Inspectorate in September 2022. It is important to understand the role of an RVAA and how this differs from the role of an LVIA. A RVAA is concerned with identifying visual effects on private residential visual amenity that may become overbearing or render a property uninhabitable, as set out in the Landscape Institute's 'Residential Visual Amenity Assessment Technical Guidance Note 2/19'. RVAA are standard practice in the assessment of onshore wind farms where there is the potential for overbearing effects to arise on properties that lie within 2km of proposed wind turbine generators (WTGs). Onshore WTGs can be up to 250m in height and are dynamic owing to the movement of the blades, such that there is potential for overbearing effects to arise, especially if properties are located within 1km of the WTGs. RVAA are typically not included in an LVIA for onshore infrastructure associated with offshore wind farms, largely due to onshore substations being notably smaller in scale and with no moving components.
Q1 LV 1.4	The Applicant	**Removal of Existing Trees and Hedgerows, Replanting and Management** Explain the processes for agreeing tree and hedgerow removal, replanting, aftercare, management and maintenance. Refer to the involvement of LPA, Natural England (NE) and landowners.	1. The Outline Landscape and Ecological Management Strategy (OLEMS) (PD1-054) sets out an outline to guidance on tree and hedgerow removal, replanting, aftercare, management and maintenance. Post-consent, a landscape management plan (LMP) and ecological management plan (EMP) will be developed which will provide more detail on the proposals for hedgerow and

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		Explain your approach to reducing the loss of hedgerows, trees and woodland along the cable route. How is the choice made between the use of trenchless techniques or to remove hedgerows, trees and woodland? How is the requirement for the use of Horizontal Directional Drilling (HDD) assessed and secured? What is the Applicant's proposed ratio for tree and hedgerow replacement? Provide an outline Arboricultural Management Strategy (AMS) or signposting to documents in the Examination which provide the information that would otherwise be contained within an outline AMS. Alternatively, explain with reasons why this information should not be submitted to the Examination. Set out how the removal of existing trees and hedgerows and the extent of any replanting are adequately controlled and secured within the draft DCO (dDCO).	tree removal, replanting, aftercare, management and maintenance in line with the principles set out in the OLEMS. This process will involve collaboration and agreement with the statutory consultees and landowners. As set out in Section 1.2, paragraph 7 of the OLEMS the final LMP, must be submitted to and approved by the relevant planning authority in consultation with LCC under Requirement 10 (Provision of landscaping) of the draft DCO (document 3.1, version 5). Both Requirements 10 and 11 (Implementation and maintenance of landscaping) require the landscaping works to be undertaken in accordance with the approved plan therefore any landscaping works will be implemented as approved and maintained in accordance with the approved plan. 2. The loss of hedgerows, trees, and woodlands along the cable route has been minimised through the application of the mitigation hierarchy, with avoidance being the primary strategy. During the route selection stage, aerial photography was utilised to identify routes that reduced the need to remove hedgerows and trees, and with no areas of woodland included within the Order Limits. The Applicant has not made a choice between trenchless techniques or removal of hedgerows, trees and woodland. A choice has been made at various places along the route of the ECC between trenchless techniques and open cut techniques, which is made based on engineering necessity, (in the case of water courses, IDB drains, and railway lines) and avoidance of significant traffic impacts (in the case of roads). Where hedgerows and trees (there are no areas of woodland within the Order Limits), are crossed by trenchless techniques, this is due to their proximity to the other assets mentioned above which must be crossed by such means. Trenchless techniques, such as HDD, are proposed at approximately 216 locations, which notably reduces the potential for further removal of hedgerows and trees along the route. While the use of trenchless techniques is largely dictated by the presence of watercourses, drains and roads, the concentration of tree and hedgerow planting adjacent to these features means that removals will not occur in locations where trenchless techniques are required including trees and hedgerows along the wider extent of the trenchless technique. In the remaining instances where the route crosses field boundaries with hedgerows or trees, micro-siting will seek to avoid tree removals and hedgerows removed will be replaced post construction. In some cases where trenchless techniques such as HDD are employed, temporary removal of small sections of hedgerows may still be required to facilitate haul road construction along the surface of the cable route. However, only the width of the haul road, not the entire construction corridor, will be removed, significantly limiting hedgerow loss. Within the Order Limits, the 52 trees and 73 hedgerows located within areas proposed for temporary or permanent works could potentially be impacted by the Project. However, during the detailed design phase, infrastructure will be micro-sited to avoid hedgerows and trees wherever possible, as set out in section 3.8 at paragraph 208 of the OLEMS (PD1-054). Upon

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			completion, all removed hedgerows will be reinstated with a suitable mix of native species to restore the landscape in accordance with the LMP approved pursuant to Requirement 10 (Provision of landscaping). 3. The need to undertake trenchless techniques is primarily driven by engineering constraints along the length of the cable corridor, including roads, water courses, railway lines, and drainage features. As stated above, many hedgerows and trees located adjacent to these features will also be crossed using these trenchless techniques, notably reducing the need for removals. The crossing schedule identifies areas that are to be crossed using trenchless techniques and the requirement to use these techniques at the landfall and all major crossings is set out in section 5.9 of the CoCP and secured through the DCO. The Project also maintains the flexibility to utilise these techniques in other areas should future detailed design identify a need to do so. The project has not sought flexibility to use open cut techniques in areas where it has already committed to using trenchless techniques. 4. The ratio for tree and hedgerow replacement planting is 3:1 as set out at Paragraph 31 of the OLEMS [PD1-054]. 5. Section 21.9.1.2 of Chapter 21: Onshore Ecology [APP: APP-076] includes relevant information regarding loss of irreplaceable habitats, including trees and hedgerows. However, there has previously been no request to undertake an Aboricultural Management Strategy (AMS) by any of the statutory consultees, or through the Scoping Opinion issued by the Planning Inspectorate in September 2022. At Section 3.6, the OLEMS [PD1-054] presents information on the protection of retained habitats, including trees. This level of information is appropriate pre-consent, owing to the limited number of trees being lost and the standard approach of detailing the management of existing and proposed planting post-consent when the final detail of the Project is established. 6. As set out in paragraphs 9.3 and 9.4 of the Explanatory Memorandum (document 3.2, version 3), Article 36 (Felling or lopping of trees and removal of hedgerows) of the draft DCO (document 3.1, version 5) provides that, subject to Article 37 (trees subject to tree preservation orders), the undertaker may fell or lop or cut back the roots of any tree or shrub within or overhanging the Order limits to prevent it from obstructing or interfering with the construction, maintenance or operation of the authorised project or any apparatus used in connection with the authorised project. Article 36 also enables the undertaker to remove hedgerows within the Order limits and the important hedgerows specified in Schedule 17. As set out in paragraph 9.6 of the Explanatory Memorandum, Article 37 (Trees subject to tree preservation orders) allows the undertaker to fell or lop or cut back the roots of any tree within

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			or overhanging land within the Order limits which is subject to a tree preservation order made after 13 October 2023. The reference to a certain date ensures that the provision will apply to trees that were only made subject to preservation orders after the application for a development consent order was prepared in order to prevent it obstructing or interfering with onshore preparation works, the construction, maintenance or operation of the authorised project, or from constituting an unacceptable source of danger (whether to children or to other persons). Compensation is provided for if loss or damage is caused. The Applicant has committed to installing cables by trenchless techniques under the existing trees subject to tree preservation orders within the Order Limits, which are shown on the Important Hedgerows and Tree Preservation Order Plan (PD1-020). Following receipt of the Local Impact Report from Lincolnshire County Council (REP1-053) and in particular their comments on Articles 35 and 36, [PD1-054] sets out an outline with regard to [tree and hedgerow removal], replanting, aftercare, management and maintenance. Requirement 10 (provision of landscaping) of the draft DCO (document 3.1, version 5) provides that no stage of the onshore works is permitted to commence until for that stage a written landscape management plan and associated work programme (which accords with the OLEMS) has been submitted to and approved by the relevant planning authority in consultation with Lincolnshire County Council. Requirement 10 requires the landscape management plan to thereafter be implemented as approved. Requirement 11 (Implementation and maintenance of landscaping) provides that landscaping works must be carried out and maintained in accordance with the landscape management plan(s) approved under requirement 10 (provision of landscaping), and in accordance with the relevant recommendations of appropriate British Standards and also ensures that any landscaping which, within a period of five years after planting, is removed, dies or becomes, in the opinion of the relevant planning authority, seriously damaged or diseased must be replaced in the first available planting season with a specimen of the same species and size as that originally planted unless alternative timing or a different specimen is otherwise approved. Therefore, replanting is adequately controlled and secured within the draft DCO.
Q1 LV 1.5	The Applicant	**Replacement planting of damaged/diseased trees or shrubs** Requirement 11 of the dDCO [AS1-024] requires that trees or shrubs that die or are seriously damaged or diseased within 5 years after planting must be replaced. Explain why 5 years is considered sufficient in the light of other made DCOs including Sheringham Shoal and Dudgeon Extensions Offshore Wind Farm, which have more onerous requirements for the implementation and maintenance of landscaping? Please comment on LCC's Local Impact Report (LIR) [REP1-053] request for an establishment and management strategy for planting and their proposed timescales for monitoring and management.	The period of five years for the replacement of damaged, diseased or dead trees, hedgerows and shrubs is considered appropriate as beyond five years the potential for plant failures to arise reduces notably. Moreover, five years marks the point at which thinning of planting will be undertaken to ensure the healthiest specimens are given the space required to establish more strongly. Damaged, diseased and dead plants will be removed as part of the thinning process but would not be replaced as overstocking would hamper the continued development of the stronger plants emerging. The success rates of the planting will be increased through careful selection of plants based on an understanding of how plant communities can withstand the effects of climate change, with specific consideration given to soil health. The specification of implementation and management practices will use British Standards to ensure quality is delivered. A five-year replacement period has been agreed on similar projects such as Awel Y Mor, Hornsea One, Hornsea Two and Hornsea Four.

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			Post consent, the OLEMS (PD1-054) will be developed into a landscape management plan which will present more detail on the establishment and management strategy for planting, with timescales specified for regular monitoring and management. The landscape management plan must accord with the OLEMS and the requirement to produce a landscape management plan is secured by Requirement 10 (Provision of landscaping) of the draft DCO. It is agreed that a robust plan for the establishment and management of the proposed mitigation planting will be required that takes into account the potential effects of climate change in order to successfully deliver a high success rate. Section 3.8 and 3.9 of the OLEMS (PD1-054) outlines reinstatement, enhancement and creation of habitats and principles of monitoring and management during both construction and operation. An updated draft of the OLEMS will be submitted at Deadline 3.
Q1 LV 1.6	The Applicant	**Changes to onshore works plans – reduction in landscaping width** At Procedural Deadline 19 September 2024 in the Schedule of Changes for Plans [PD1-003], the Applicant describes changes to the Works Plan Onshore including: Works areas refined around the access bellmouth at the OnSS to account for a third-party planning application. The change includes a reduction in landscaping (Work No. 23) and replacement with drainage works (Work No. 24). These changes are on sheet 47; and West of the A16, works areas refined to reduce landscaping width from 10m to 6m (Work No. 23).The remaining 4m width is now presented as areas for drainage works (Work No. 24). This change has been made to allow access to the ditch for maintenance and jetting of land drains. These changes are on sheet 46. Please set out the effect on landscape and visual impact of reducing the landscaping width from 10m to 6m in these locations.	The reduction in planting around the access bellmouth to the OnSS (Works No 23) comprises a small reduction in the extent of proposed planting that will not increase the levels of visibility. This is due to the angle of the opening relative to the location of the onshore substation combined with the transitory nature of road-users who will experience this view. The reduction in planting will, therefore, not change the outcomes of the assessment. The reduction in planting from 10m to 6m to the west of the A16 will not alter the assessment because it forms the outer layer in a series of existing and proposed belts of tree and hedgerow planting, which will cumulatively combine with planting on both sides of the A16 to form an effective screen between visual receptors in the Gosberton Marsh area and the OnSS.

1.16 Marine Mammals

Table 1.16: Marine Mammals

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Marine Mammals			
Q1 MM 1.1	The Applicant	**Definition and use of clearance event** Table 11.7 of Chapter 11: Marine Mammals [APP-066] sets out the maximum design scenario for marine mammals for the project alone. In terms of Unexploded Ordnance (UXO) clearance this would entail two clearance events within 24 hours. Does the term “clearance event” need to be further defined and how is this restriction to be secured in the dDCO and the Outline Marine Mammal Mitigation Protocol for Unexploded Ordnance Clearance [APP-280]?	The Applicant is not seeking consent for Unexploded Ordnance (UXO) clearance in the Development Consent Order (DCO) application, as is typical for offshore wind farms. The Applicant will apply to the Marine Management Organisation (MMO) under Part 4 of the Marine and Coastal Access Act 2009 for a marine licence to undertake UXO identification survey and at the post-consent stage. The nature of any ‘clearance event’ will be and regulated within any the UXO clearance marine licences. Whilst UXO clearance is not included as part of the DCO, the impacts to marine mammals are assessed in Chapter 11 (APP-066) as part of the Environmental Impact Assessment (EIA) process for the DCO Application to ensure all reasonably foreseeable

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			activities associated with the Project are assessed as part of the EIA. The 6.8.2 Outline Marine Mammal Mitigation Protocol for Unexploded Ordnance Clearance (version 3 submitted as part of the Deadline 2 submission) is provided to demonstrate that the risk of injury to marine mammals can be sufficiently mitigated, based on known technologies to provide confidence in the assessment. The final Marine Mammal Mitigation Protocol (MMMP) for UXO Clearance will be developed at the post-consent phase as and submitted to the MMO as part of the marine licence application process.
Q1 MM 1.2	The Applicant	**Maximum hammer energy** The proposed maximum hammer energy of 6,600kJ is substantially greater than that which has been proposed for recently-consented OWF projects such as Hornsea Project Four which imposed a 5,000kJ max hammer energy limit for monopile foundations (as per Schedule 11, Part 2, Condition 13(4)) and East Anglia TWO which had a 4,000kJ restriction for monopile foundations (Schedule 13, Part 2, Condition 17(2)). Having regard to these other made Orders, justify why you are seeking a maximum hammer energy of 6,600kJ for monopile foundations for both Wind Turbine Generators (WTGs) and for Offshore Platforms (OP).	The Applicant notes that while the proposed maximum hammer energy is greater than for recently consented projects such as Hornsea 4, the proposed maximum hammer energy is similar to that of other offshore wind farm projects currently in the consenting process. For example, Dogger Bank South Offshore Wind Farms has a maximum hammer energy of 6,000kJ and Five Estuaries has a proposed maximum hammer energy of 7,000kJ, while the recently consented Sheringham and Dudgeon Extension projects have a maximum hammer energy of 5,500kJ. The Applicant further notes that the maximum hammer energy is primarily driven by the foundation type rather than the infrastructure to be installed on that foundation, with a lower maximum hammer energy of 3,500kJ required for pin piles for a jacket foundation for both WTGs and OPs. The proposed maximum hammer energies selected for the Project is aimed at catering for the range of specific ground conditions anticipated as informed by the existing site data. Further ground investigation will be undertaken as part of the continued development of the Project design. It is in the Project's interest to use the lowest maximum hammer energy required for successful installation of the piles as this reduces fatigue to the foundation (allowing for thinner walls to the piles and consequently lower cost), however, the current maximum hammer energies identified in the project design are the predicted worst-case energies required for installation, based on the data currently available It is only once the detailed design has been completed and final installation method selected post consent would the final hammer energy to be used be known. Other offshore wind farm (OWF) projects may have set their maximum hammer energy based on the available technology at the time of their respective DCO applications, which in the case of Hornsea Four, the DCO application was submitted in September 2021 and in the case of East Anglia 2 the DCO application was submitted in October 2019. Like other parts of the offshore wind industry, the hammer technology available on the market has increased in size since 2019 and 2021. The proposed maximum hammer energy of 6600kJ is therefore fully justified, with no significant adverse effects predicted to marine mammals from the use of this maximum hammer energy.
Q1 MM 1.3	The Applicant	**European Protected Species and/or wildlife licence** NE in its Relevant Representation (RR) [RR-045] page 13, has made reference to the fact that an application for a European Protected Species and/or wildlife licence may	For marine European Protected Species (EPS), the licensing body is the MMO, rather than Natural England. The Applicant confirmed in engagement with the MMO (by email, 19/11/2024) that the MMO does not issue LoNI for marine EPS licences. When

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		be required for a number of species including harbour porpoise, harbour seal and grey seal. What is the current situation with this, including whether it is likely that a Letter of No Impediment will be issued before the close of this Examination? The ExA requests that you provide an update on this at each Deadline.	the design of the wind farm is being finalised post-consent, discussions of the final Project details will be undertaken with the MMO. If required, EPS licences for marine mammals would be applied for at the post-consent stage as detailed in the Applicant's Response to Relevant Representation (PD1-071), as is typical for offshore wind projects.
Q1 MM 1.4	The Applicant	**Definition of piling event and number of events** In Table 2.1 of the Outline Marine Mammal Mitigation Protocol for Piling Activities [APP-279] as updated by [PD1-044] it is stated that for the maximum design scenario for monopiles there would be a maximum number of 2 "piling events per day" and also a maximum number of 2 "simultaneous piling events". What is your definition of a "piling event" and in terms of simultaneous piling events what does 2 per day mean in practice – ie is that simultaneous piling events for the Proposed Development alone, or would it also include piling events from any other projects that were being constructed at the same time? If it could include the latter then explain how this would be agreed, regulated and monitored between projects? Does the term 'piling event' need to be defined in the dDCO? The ExA also notes that in Table 2.2 of [APP-279] the maximum design scenario would be for up to 8 piling events per day for pin-piles for the WTG and OP, whereas in Table 2.2 of [PD1 -004] this has maximum number of piling events per day has been increased to 12 for pin-piles. Does this increased number of potential piling events affect your assessment of effects? Furthermore, OP does not appear to be specifically defined in the draft DCO or other submitted documents. Please clarify what offshore platforms this term would include.	The term 'piling event', as referred to in Table 2.1 of the 6.8.1 Outline MMMP for Piling Activities (version 3 submitted as part of the Deadline 2 submission), means the complete installation of an individual pile. There would be a maximum of 2 piling events per day for the Proposed Development. The two piling events per day may occur at the same time (i.e. simultaneously), or one after another (i.e. sequentially). The term "piling event" is not used in the draft Development Consent Order (dDCO) and therefore the Applicant does not consider there to be a need to define it. The Applicant is not aware of any other offshore wind farm DCOs which have a definition of "piling event". Simultaneous piling would require two piling installation vessels installing simultaneously, which in practice will not occur frequently. However, as a precaution, simultaneous piling is assumed to be the Worst Case Scenario as two piling vessels are accounted for in the Maximum Design Scenario (MDS) and simultaneous piling would result in the greatest underwater noise impact ranges (when compared to single and sequential piling, for example). The Applicant confirms that simultaneous piling considered in the Chapter 11, Appendix 2 Underwater Noise Assessment (APP-161) and Chapter 11 Marine Mammals [APP-066] is for two monopiles per day for the Proposed Development alone. It does not include piling events from other projects being constructed at the same time. The effects arising from piling events with other projects being constructed are considered in the cumulative assessment (section 11.7, Chapter 11, Marine Mammals (APP-066). The Applicant confirms there was an error in Table 2.2 (APP-279) where it incorrectly stated up to eight piling events a day for pin-piled jackets. A response to the identified error was provided in (PD1-071) and the 6.8.1 Outline Marine Mammal Mitigation Protocol (MMMP) for Piling Activities (version 3 submitted as part of the Deadline 2 submission) was updated to reflect this. The Applicant confirms the error was only in Table 2.2 (APP-279). The MDS for the concurrent location jacket pile scenario is six piles installed at each location, resulting in a total of 12 piles installed in a 24-hour period. This scenario could arise if there were two piling installation vessels installing simultaneously, with both vessels installing six jacket piles during one day. Therefore, the underwater noise impact assessment in, and assessment presented within, Chapter 11 Marine Mammals (APP-066) and within Environmental Report for the Offshore Restricted Build Area and Revision to the Offshore Export Cable Corridor (PD1-081) are correct.

Question ID	Question addressed to	Question	Response
			The phrase "offshore platform" is not referred to in the draft DCO or in any DCO or deemed Marine Licence (dML) conditions. However, it is defined in Table 5.1 of Chapter 3 Project Description (APP-058): "Offshore platforms (OPs) is a term to collectively describe OSSs, ORCPs and the accommodation platform all of which are described individually in this table." Full details of these elements of the project are set out in section 6.3 Offshore Substations, 6.4 Offshore Reactive Compensation Platform and section 6.5 Offshore Accommodation Platform of Chapter 3 Project Description (APP-058)." The term "offshore platform" is not used in the DCO, rather the DCO provisions apply to specific items of infrastructure which are encompassed by the collective term "offshore platform". Therefore the Applicant does not consider there to be a need to define "offshore platform" in the DCO.
Q1 MM 1.5	NE and the MMO	**Interim Population Consequences of Disturbance Modelling Report** As part of its 19 September 2024 submissions the Applicant submitted an Interim Population Consequences of Disturbance Modelling Report [PD1-094]. The modelling does not assume density dependence and the Applicant contends that the results are considered to be highly conservative. Do you agree with the Applicant's analysis and, if not, please provide a justification for your response?	
Q1 MM 1.6	The Applicant	**Use of Noise Abatement Systems** In its D1 response [REP1-060] NE has reiterated its view that a commitment should be made to the use of noise abatement systems (NAS) as a mitigation measure and expressed the view that: " … the majority of piling from 2025 onwards will not be able to go ahead without noise abatement in place." The ExA is aware of the Applicant's response on this matter in [PD1-071] and notes that the In Principle Southern North Sea SAC Site Integrity Plan, [APP-281] as updated by [PD1-048], references the potential use of NAS as a secondary mitigation option but does not make a firm commitment to its use. However, in light of NE's comments explain your reluctance to either commit to the use of NAS at this stage as a secondary mitigation measure, or to set out the criteria that would trigger the implementation of NAS.	The Applicant reiterates that it does not consider a need to commit to NAS based on the conclusions of no significant effects in the EIA (see Summary of Effects Table 11.77 of Chapter 11 Marine Mammals (APP-066)) and no adverse effect on intergrity within the Habitats Regulations Assessment (HRA) (see Conclusions of Assessment Table 12.1 of the Report to Inform Appropriate Assessment (RIAA) (AS1-095)). The Applicant has included NAS, alongside other forms of mitigation, within the 6.8.1 Outline MMMP for Piling Activities and 6.8.2 Outline MMMP for UXO (version 3s submitted as part of the Deadline 2 submission), and should it be deemed it is necessary, the Applicant has committed to implementing suitable methods of mitigation, which would include NAS if this is determined to be appropriate. The MMMP for Piling Activities will be submitted to the MMO for approval prior to construction, to allow for the most appropriate and best available technologies at the point of construction to be applied. This is secured in condition 13(1)(f), Part 2 of Schedules 10 and 11 and condition 11(1)(e), Part 2 of Schedules 12-15 of the DCO. Condition 14(5), Part 2 of Schedules 10 and 11 and condition 12(4), Part 2 of Schedules 12-15 require the licensed activities to be carried out in accordance with the approved plans, unless approved by the MMO. The Applicant is aware of the current challenges associated with managing multiple noise generating activities within the Southern North Sea SAC (including piling from OWFs as well as oil and gas surveys amongst other activities). The Applicant currently anticipates that the most likely trigger for the need for NAS to be implemented on the Project would be under a scenario whereby scheduling of activities between developers would be insufficient to

Question ID	Question addressed to	Question	Response
			avoid exceedances of the thresholds for loss of habitat from noise generating activities within the SAC. In this instance, some, if not all, activities would need a form of NAS. However, there is insufficient confidence in the likely overlap of activities to conclude that scheduling of activities would not sufficient alone; consequently, the Applicant does not consider it appropriate to commit to a mitigation measure which may not be required (and is not required based on the current conclusions of the assessment). The Applicant notes that in March 2024 (as stated in NE D1 response (REP1-060)) DEFRA and the MMO held a private workshop which suggested that noise abatement would become an expectation in the near future and that they were investigating the feasibility of implementing a piling noise threshold. This latter approach is similar to the system used in Germany which determines that underwater noise from the construction of an offshore wind farm must not exceed a stated threshold at 750m. At the time of writing no guidance, policy or legislation has been published by DEFRA or the MMO on what the threshold is likely to be. In addition, no public announcement about the expectation to use NAS in the near future has been made. Once relevant policy documents are published the Applicant will consider the implications of this on the Project. The unmitigated piling scenario modelled for within Chapter 11 Marine Mammals (APP-066) remains the MDS for the purposes of the assessment of effects therefore the worst case has been assessed within the EIA.

1.17 Noise & Vibration

Table 1.17: Noise & Vibration

Question ID	Question addressed to	Question	Response
Noise & Vibration			
Q1 NV 1.1	Lincolnshire County Council (LCC) Barry Cooper	**Noise and Vibration effects on Property** The Relevant Representation (RR) submitted by Barry Cooper [RR-080] raises concerns over the potential effects due to noise and vibration. In the Applicant's response to RR [PD1-071], the Applicant notes that no significant noise and vibration effects were identified with the implementation of mitigation measures and the implementation of the Outline Noise and Vibration Management Plan [APP-269]. The Applicant's response also emphasizes the summaries of the effects from the Noise and Vibration in the ES Chapter 26 on Noise and Vibration [APP-081] and states that the effects of Noise and Vibration on the Mr Copper's property are 'Minor Adverse Level of Effect', which are not considered significant in terms of the EIA regulations. Considering the Applicant's response to RRs [PD1-071], are the Applicant's conclusions in relation to the impact of noise and vibration on the property mentioned in [RR-080] satisfactory? If not, explain your position with evidence to support your view.	

Question ID	Question addressed to	Question	Response
Q1 NV 1.2	The Applicant	**Monitoring Noise Pollution** In its RR [RR-045], NE notes that the Noise and Vibration Management Plan [APP-269] does not include the monitoring of noise impacts at sensitive ecological receptor sites. Natural England (NE) recommends ensuring monitoring during construction and decommissioning phases at these sensitive ecological receptor sites, with appropriate mitigation implemented to manage noise impacts on these receptors. Provide proposals for additional monitoring, as requested by NE, or provide signposting to indicate where in the application documents this is allowed for. If the Applicant has assessed that no additional monitoring would be necessary, provide reasoning which justifies this position. Also set out how appropriate noise monitoring at sensitive receptor sites and the provision of any associated mitigation measures would be secured.	It is noted that point H36 specifically within the NE RR [RR-045] recommends noise monitoring at the sensitive ecological receptor sites, with appropriate mitigation implemented. The Applicant has addressed this comment in the Applicant's Response to Relevant Reps [PD-071] *"Appropriate mitigation measures for ecological receptor sites would be included within a final Noise and Vibration Management Plan (NVMP) which is secured in Requirement 18 of the draft DCO"* *With regards to the monitoring of mitigation measures and noise levels from construction operations this would include Ecological receptors where deemed necessary, subject to detailed engineering design and route refinement[3]. All monitoring and mitigation will be in line with the OCoCP (8.1 Outline Code of Construction Practice (Version 2)) & Outline NVMP [APP-269]."* It is proposed to undertake noise monitoring where specific noise mitigation measures have been included for ecological receptors. This is limited to the landfall construction compound, where a noise attenuation bund and visual screen has been included, to protect the coastal nature reserves at Anderby Marsh and Wolla Bank Reedbed. Where the Order Limits are within the potential disturbance distance of The Wash SPA and Ramsar, which occurs at The Haven crossing and the Boston Alternative Energy Facility (BAEF) Wyberton Roads South compensation site, mitigation has been included in the form of a seasonal restriction to work. This mitigation measure also encompasses potential functionally linked land (FLL) for dark-bellied brent geese around The Haven. Therefore, noise monitoring is not required in those locations, as no works will be undertaken during the sensitive periods. For other species utilising potential FLL, which have a widespread distribution and move between fields between visits, mitigation has been included in the form of a localised working restriction, as explained in Section 22.8.1.3 of APP-077 (e.g. for lapwing). Noise related mitigation measures were not considered to be appropriate, given they could not be targeted in specific areas on the basis of the widespread and dynamic distribution of the relevant species throughout the Order Limits plus 400m potential disturbance buffer, with distribution shifting within and between seasons, including in response to crop management and rotation. Noise monitoring of farmland throughout the Order Limits is therefore not necessary. The season two wintering bird survey addendum (AS1-108) provides additional information on the preferred foraging habitat within the survey area and the mitigation measures were reviewed to account for this, with amendments provided in the addendum. Further information on crop availability was provided in 15.11 Additional Clarifications Relating to Natural England's Relevant Representation [PD1-093]. This provided further evidence of the usage of crop types by qualifying features which are common and widespread within the Order Limits plus 400m buffer, as well as within the wider landscape within proximity to The Wash.

[3] The reference to route refinement relates to micro-siting within the Order Limits rather than any changes to the Order Limits themselves.

Question ID	Question addressed to	Question	Response
Q1 NV 1.3	The Environment Agency (EA)	**Noise Bund Assessment** Could the EA clarify its position on the Noise Bund Assessment, as mentioned in Paragraph 7.8 of the Written Representation [REP1-048]?	
Q1 NV 1.4	EA	**Noise Bund Hydraulic Modelling Report** With reference to Table 5, EA14 of the Draft Statement of Common Ground (SoCG) between the Applicant and the Environment Agency [REP1-026], could the EA provide their stance on the Noise Bund Hydraulic Modelling Report [PD1-075] to [PD1-079]?	
Q1 NV 1.5	LCC Nicola Ann Pearson	**Vibration effects** The RR submitted by Nicola Ann Pearson [RR-091], raised concerns about structural damage to the cottage due to vibrations from heavy vehicles in close proximity. In the Applicant's response to the RR [PD1-071]The Applicant specifies the Peak Particle Velocity (PPV) levels for both daytime and nighttime during construction and operations committed for the Proposed Development, with reference to British Standard 7385-2:1993, Evaluation and Measurement for Vibration in Buildings — Part 2: Guide to Damage Levels from Groundborne Vibration. With reference to the Applicant's response to these RRs [PD1-071], do you find the Applicant's conclusions regarding noise and vibration on the Cottage during construction satisfactory? If it is not satisfactory, explain your position with evidence to support your view	

1.18 Offshore and Intertidal Ornithology

Table 1.18: Offshore and Intertidal Ornithology

Question ID	Question addressed to	Question	Response
Offshore and Intertidal Ornithology			
Q1 OR 1.1	The Applicant	**Sheringham Shoal and Dudgeon Extensions Offshore Wind Farm Projects** The Order has been made for the Sheringham Shoal and Dudgeon Extensions Offshore Wind Farm Projects on 17 April 2024. To what extent were these two projects accounted for in your Environmental Statement (ES) considerations and do any documents need updating to reflect the fact that the Order has now been made? Does the making of this Order affect any of the conclusions you have drawn in terms of cumulative effects for offshore and intertidal ornithology?	The Applicant has considered the Sheringham Shoal and Dudgeon Extension Projects (SEP and DEP) within its Environmental Statement. Documents submitted by SEP and DEP, which included the most up to date numbers for these and all other relevant projects, were used to assess cumulative impacts within the Project assessment (EN010109-001726-19.21 Gannet and Auk Cumulative Displacement Updates Technical Note for Cumulative assessment and C282-RH-Z-GA-00226 Collision Risk Modelling (CRM) Updates (EIA Context) Technical Note). The Applicant used the "Natural England approach" values from the SEP and DEP documentation in the assessments for the Project. The Applicant notes that the Secretary of State made an Order containing a restricted build area for those projects which was not considered within the values used by the Project. The Applicant further notes that a Non-Material Change (NMC) has been submitted for SEP/DEP that amends a number of parameters which could alter the contribution from those projects to the cumulative assessment made for the Project. The Applicant will incorporate the updated values from SEP/DEP within the wider update to the in-combination assessments (to also include the revised values for other now submitted or approved projects) that will be submitted at Deadline 4.

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Q1 OR 1.2	Natural England (NE) and RSPB	**Outstanding areas of disagreement** Table 1.1 of Response to the Rule 17 Letter dated 3 July 2024, Doc Ref 14.2 [AS-013] and The Applicant's Responses to Relevant Representations, Doc Ref 15.3 [PD1-071] present a breakdown of what the Applicant considers to be the key areas of disagreement on assessment methodology for offshore and intertidal ornithology. Do you consider that the Applicant has adequately captured in these documents all the outstanding issues and outstanding areas of disagreement over methodology or are there any other assessment methodology matters that have been omitted in these two documents?	
Q1 OR 1.3	The Applicant	**Definition of MHWS and MLWS** In the Abbreviations/Acronyms table at the start of ES Chapter 12: Offshore and Intertidal Ornithology [AS1-040] MHWS and MLWS are defined respectively as "Marine High-Water Springs" and "Marine Low-Water Springs". On other NSIPS MHWS/MHLS have been Mean High (or Low) Water Springs, rather than 'Marine'. Is there a difference between these terms or is this an error? If there is a difference, then explain what the implications of this would be for assessing minimum draught heights for wind turbine generator (WTG) blades.	The use of the phrases "Marine High-Water Springs" and "Marine Low-Water Springs" was a typographical error and were intended to refer to Mean High Water Springs (MHWS) and Mean Low Water Springs (MLWS) respectively. In relation to any implications for assessing minimum draught heights for WTGs, regardless of this typographical error, the minimum height of WTG blades is measured from mean sea level not Mean High Water Springs. This typographic error has no implications for the assessments presented in the ES.
Q1 OR 1.4	The Applicant, NE and the RSPB	**Closure of the English and Scottish North Sea waters for sandeel fishing** Paragraph 43 of the Kittiwake Compensation Plan [APP-250] refers to the permanent closure of the sandeel fishing industry in English and Scottish waters from 1st April 2024. What impact is this likely to have on sandeel populations and consequentially prey availability for seabird species? When will the first monitoring results of sandeel populations become publicly available? Has this ban on sandeel fishing been factored into any of the Applicant's assessment methodology?	The sandeel fishery closure is noted as part of the future baseline in paragraph 35 of Chapter 12 Offshore and Intertidal Ornithology (AS1-040). Whilst widely considered to be beneficial for seabirds, the precise benefits of the sandeel fishing ban are, at this stage, difficult to quantify. Taking a precautionary approach, the assessment has not accounted for the potential for seabird populations to increase as a result of the sandeel fisheries closure. Sandeels have high calorific content and are therefore extremely important to the development of many species of seabird chicks. While banning sandeel fishing and therefore restoring stocks is very likely to have positive impacts for seabirds, it is not currently possible to quantify the precise benefits to seabird populations in terms of changes to baseline mortality or productivity, amongst other factors, for inclusion in the numerical assessments for the Application. However, it is generally agreed (among Statutory Nature Conservation Bodies and Non-Governmental Organisations such as Royal Society for the Protection of Birds (RSPB)) that increasing the numbers of sandeels in the North Sea through closure of the sandeel fishery is the most effective means of increasing kittiwake populations through increasing their breeding success. The closure of the sandeel fisheries has the potential to increase the baseline population of kittiwakes within the North Sea, increasing the resilience of this species and increasing the capacity of the population to absorb losses from anthropogenic impacts (thereby reducing the magnitude of the effect from the Project). The Applicant cannot comment on when sandeel monitoring results will become available.
Q1 OR 1.5	The Applicant	**Methodology for calculating the proportion of adults** In its Deadline 1 submission [REP1-061] NE has set out its preferred method for calculating the proportion of adults from DAS data. This gives the following adult proportions: gannet - 0.90; kittiwake – 0.91; lesser black-backed gull - 0.66. Please provide an updated assessment utilising these adult proportions.	The method used by the Applicant to calculate adult proportions from the site-specific Digital Aerial Surveys (DAS) data is similar to that proposed by NE; the Applicant has taken an average of the proportion of adults from each monthly survey, whereas the NE preferred method uses the raw data on aged birds and adults across all surveys to calculate the proportion of adult birds across all months. The methods produce similar

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			results (the Applicant's approach uses the following adult proportions: gannet- 0.86, kittiwake – 0.90, lesser black-backed gull – 0.5). The Applicant considers that, for kittiwake and lesser black-backed gull, the slightly lower adult proportions (as proposed by the Applicant) are likely to more representative of the actual adult proportion. This is due to the fact that both kittiwake and lesser black-backed gull attain a plumage very similar to that of an adult before they are sexually mature, i.e. birds aged as adults from DAS images should be considered 'adult-like' rather than necessarily 'adult'. As such, a proportion of the population of these species will look like, but not be, adult, leading to a general overestimation of the adult proportion of birds present at the site. For gannet, the likelihood of 'adult-like' birds being included within an adult proportion is lower than for kittiwake but still feasible. The Applicant notes that the initial issue with the method used to calculate the adult proportion which was raised by Natural England (i.e. the use of months where no birds were recorded among those used to calculate an average) does not apply to either gannet or kittiwake as no months were recorded with no birds for these species. As such the Applicant is content that the rates used to date are suitable for all three species The Applicant can update the assessment based upon the NE preferred approach to the calculation of adult proportions at Deadline 4 if required (specific guidance on NE's preferred approach was first provided in their Deadline 1 submission (REP1-061).

1.19 Oil, Gas and Other Offshore Infrastructure

Table 1.19: Oil, Gas and Other Offshore Infrastructure

Question ID	Question addressed to	Question	Response
Oil, Gas and Other Offshore Infrastructure			
Q1 OG 1.1	The Applicant	**Written Ministerial Statement (WMS)** Does the WMS made by the Secretary of State for Energy Security and Net Zero (SoS DESNZ) on 24 May 2024 entitled "Oil and Gas Overlaps with Offshore Wind Projects" (UIN HCWS504) have any implications for the project in relation to the assessment of marine infrastructure and other users?	The third tranche of the 33rd Oil and Gas (O&G) Licensing Round was awarded in May 2024, with two provisional licences awarded with the potential to overlap with the Project: block 48/12a (Perenco P2677) and block 47/10c (Deltic Energy Plc P2672). The Written Ministerial Statement (WMS) is not considered to have any implications for the project in relation to the assessment of marine infrastructure and other users. The WMS (UIN HCWS504) explains: *"A number of licences from the third tranche of the 33rd Oil and Gas Licensing Round have direct overlaps with, or come within 500 metres of, areas which are already under agreement for offshore wind development. It is important to note that the oil and gas licences grant exclusivity to explore the licence area, but they do not confer*

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			consent for any operational activity. This would require separate consents from the North Sea Transition Authority. *The new clause will require the oil or gas licensee to have a co-location agreement with the affected offshore wind developer in place before any operational activity can take place in that licence area, which includes seismic surveying, drilling exploratory wells or installing subsea or surface infrastructure* *Co-location agreements will be the way forward for resolving any issues arising from overlaps and I expect all parties to engage constructively, to act in good faith and to behave reasonably when approaching discussions on co-location. Where there are difficulties in reaching a suitable co-location agreement, the parties should first seek independent mediation or discuss a way forward with the North Sea Transition Authority and the Crown Estate or Crown Estate Scotland.''* As set out in the WMS, the relevant operators (Perenco and Deltic Energy Plc) will need to seek a co-location agreement from the Project. There would be no change to the conclusions reached in ES Chapter 18 (APP-073). This is because, as outlined in the WMS, licences merely grant exclusivity, rather than consent for an operational activity. The Applicant has met with both licence holders to establish high level intentions for future activities, noting that no new information has been presented that would result in a different outcome to the potential interactions assessed within Chapter 18 (APP-073).
Q1 OG 1.2	The Applicant Breesea Limited, Soundmark Wind Limited, Sonningmay Limited, Optimus Wind Limited Hornsea 1 Limited Lincs Wind Farm Limited Orsted Hornsea Project Four Limited Orsted Hornsea Project Three (UK) Limited Race Bank Wind Farm Limited	**Wake and energy yield** The Examining Authority (ExA) notes the Applicant's responses to multiple Relevant Representations (RR) [PD1-071] regarding energy yield concerns. Reference is made by the Applicant to the respective distances from the project's array area to the other Offshore Wind Farms (OWFs), compliance with The Crown Estate's requirements for Offshore Wind Leasing Round 4 that projects may not be located within 7.5km of an existing OWF unless the owner of the OWF has given their written consent and the findings of the Offshore Wind Leasing Programme Array Layout Yield Study published by the Crown Estate in 2023. Furthermore, the ExA also notes the provisions of National Policy Statement (NPS) EN-3, including paragraphs 2.8.197, 2.8.198, 2.8.345, 2.8.347, Requirement (R)25 of The Awel y Mor Offshore Wind Farm Order 2023 and the conclusions of SoS for DESNZ on this project that a wake assessment was required. ▪ For the Applicant, please submit a wake assessment to identify any effects on the energy yield of other OWFs. If such an assessment is not to be provided, please provide justification. ▪ Please provide comments on the implications of the Awel y Mor decision and interpretation of the relevant policy with NPS EN-3 ▪ The other OWFs operators are invited to submit evidence in support of their position.	Under the heading of "*Offshore wind environmental standards and other offshore infrastructures and activities"*, NPS EN-3 paragraphs 2.8.196 to 2.8.198 provide as follows (emphasis added): *"2.8.196 The scale and location of future offshore wind development around England and Wales means that development has occurred, and will continue to occur,* ***in or close to areas where there is other offshore infrastructure****.* *2.8.197* ***Where a potential offshore wind farm is proposed close to existing operational offshore infrastructure, or has the potential to affect activities for which a licence has been issued by government, the applicant should undertake an assessment of the potential effects of the proposed development on such existing or permitted infrastructure or activities.[4]*** *2.8.198 The assessment should be undertaken for all stages of the lifespan of the proposed wind farm* ***in accordance with the appropriate policy and guidance for offshore wind farm EIAs****...* The above paragraphs relate to the assessment of the effects of a proposed offshore wind development on other existing or consented offshore infrastructure. Paragraph 2.8.196 sets the context for the paragraphs which follow and explains that the principal scenarios in which assessment may be required are those in which a development is being carried out "*in or close to*" areas where there is other offshore infrastructure.

[4] Note that this wording is almost identical to the wording in paragraph 2.6.179 of the previous version of NPS EN-3, which was the subject of debate at examination of the Awel y Mor Wind Farm, following submissions by Rhyl Flats Wind Farm.

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	The Crown Estate	▪ The Applicant is invited to submit a copy of the Offshore Wind Leasing Programme Array Layout Yield Study for inclusion in the Examination Library ▪ The other OWF operators are invited to provide specific comments on Offshore Wind Leasing Programme Array Layout Yield Study, including any implications for the project. ▪ Can the Crown Estate clarify if the minimum 7.5km distance requirement between Leasing Round 4 projects takes the potential for wake effects into account? The Crown Estate is invited to comment on the purpose of the Offshore Wind Leasing Programme Array Layout Yield Study and any implications for the project?	Following on from that important context, paragraph 2.8.197 sets out that an applicant should undertake an assessment of the potential effects of the proposed offshore wind farm on existing or permitted offshore infrastructure or activities. That assessment is required under this policy if the proposed offshore wind farm is: a) to be located close to existing offshore infrastructure; or b) has the potential to affect activities for which a licence has been issued by government. In relation to b), reading paragraphs 2.8.196 and 2.8.197 together, it is clear that, in order for there to be a potential to affect activities for which a licence has been issued by government, there must be sufficient proximity between the licensed activities and the proposed offshore wind farm. Paragraph 2.8.198 then explains that such an assessment ought to be carried out in accordance with the principles of environmental impact assessment. *Proximity* Under the above paragraphs of the NPS, for an assessment of wake effects to be required, the proposed offshore wind farm must be "close to" areas where there is other offshore infrastructure. The table below sets out, in relation to each of the projects which are the subject of relevant representations on this matter, the distance between that project's array and the Array (with and without the ORBA). **Project** / **Distance between the project array and the Array** / **Distance between the project array and the WTG Area[5]** Hornsea Project 2 / 20.2km / 22.2km Hornsea Project 1 / 23.1km / 24.6km Race Bank / 23.5km / 23.5km Hornsea Project 4 / 38.99km / 41.3km Lincs / 46.05km / 46.05km Hornsea Project 3 / 59.4km / 60.6km The Applicant also notes that, in relation to four of the six above projects, including the two closest projects (Hornsea Project 2 and Hornsea Project 1), the implementation of the ORBA further increases the distance between these projects and the WTG Area. The meaning of "close to" is relative dependent on its context. As the ExA notes, the issue of wake effects was the subject of considerable discussion during the Examination for the Awel y Mor project between the developer of that project and the developer of the Rhyl Flats Offshore Wind Farm. This provides an important example of the circumstances in which the arrays of two offshore wind developments might be said to be "close to" one another in the specific context of wake loss. The Awel y Mor array was proposed to be

[5] i.e. accounting for the ORBA

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			situated just 5.1km from the existing Rhyl Flats array.[6] The distance between the Awel y Mor and Rhyl Flats arrays is substantially closer than the distance between the Array and the arrays in respect of any of the above projects. The evidence submitted by Rhyl Flats as part of the Awel y Mor Examination cited distance between the two arrays as being the key factor at play in determining whether there would be a wake effect and, if so, the level of that effect.[7] That evidence stated that DNV expected the wake loss at Rhyl Flats Wind Farm "to be in the region of up to 2%". The applicant submitted that the 2% figure was calculated based on a worst case of the predicted impacts and therefore the actual losses may be lower. This point was acknowledged by the Secretary of State and the Examining Authority in relation to the Awel y Mor Examination.[8] The evidence accepted during the Awel y Mor Examination is consistent with the findings of the Offshore Wind Leasing Programme Array Layout Yield Study (a copy of which has been submitted at Deadline 2, as requested). Section 3.3 of that report sets out that modelled wake loss results would be between 2.0% and 0.5% of gross portfolio AEP for 2 and 20 km separations, respectively. The study goes on to state "*For even the smallest separations between wind farms (2km or one turbine spacing) farm-to-farm wake loss remains small (2.0% in this case) compared to the loss due to internal wakes and blockage (7.7% in this case).*" The 7.5km separation distance between projects set and managed by The Crown Estate clearly aligns with the available evidence on wake effects. By complying with this separation distance, wake effects are factored into a project's design. As the Applicant set out in the Applicant's Responses to Relevant Representations (PD1-071) (tables 1.11, ref RR-011.002; 1.28, ref RR-028.002; 1.37, ref RR-037.002; 1.51, ref 3; 1.52, ref 2; and 1.54, ref 2), the Offshore Wind Leasing Programme Array Layout Yield Study indicates that wake effects level off with approximately 10km separation between OWFs, and at separation distances over 20km wake effects become "vanishingly small". Particularly with the introduction of the ORBA, the distance between the WTG Area and the array for all of the above projects would be substantially greater than 20km and wake effects would, on that basis, be categorised as "vanishingly small". *Assessment of effects* As noted above, paragraph 2.8.198 explains that any assessment of effects on third party infrastructure ought to be carried out in accordance with the principles of environmental impact assessment. It is a well-established principle of environmental impact assessment,

6 Table 9 (Offshore Wind Farms in the Irish Sea Region), Chapter 10 Other Marine Users and Activities, Environmental Statement for the Awel y Mor Offshore Wind Farm (examination reference in relation to the Awel y Mor Offshore Wind Farm APP-058)

7 Paragraph 2, Opinion Letter by Lea Khouri, Project Development Lead Manager, DNV dated 15 December 2022

8 Paragraphs 4.166 and 4.178, Secretary of State's Decision Letter in relation to the Awel y Mor Offshore Wind Farm

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			that such an assessment is only required in order to establish the likely significant effects of the project on the environment.[9] Paragraph 4.3.10 of NPS EN-1 states that "*an applicant must provide information proportionate to the scale of the project*" and cross refers to the Guidance on EIA in the context of town and country planning applications. That guidance states: "*the emphasis should be on the "main" or "significant" environmental effects to which a development is likely to give rise. The Environmental Statement should be proportionate and not be any longer than is necessary to assess properly those effects."* There is no requirement for an assessment to be carried out for an effect which is not likely to be significant. An effect which is categorised as "vanishingly small" or even simply "small" cannot reasonably be said to be significant. The Applicant notes that the question of whether potential energy loss of existing operational wind farms falls within the scope or requirements of the Infrastructure Planning (Environmental Impact Assessment) Regulations 2017 or the scope of the policy requirements in NPS EN-3 is a matter which is currently the subject of debate in the Examinations relating to the Mona Offshore Wind Farm[10] and Morgan Offshore Wind Farm[11]. A decision on this point in relation each of these DCO applications will be made prior to the decision on the Project. The Applicant therefore does not consider it necessary to rehearse these arguments in this submission. Notwithstanding the above, the Applicant has considered the potential for wake effects. In accordance with NPS EN-3 paragraph 2.8.200, the Applicant engaged with the developers of each of the above projects during the pre-application phase. Table 18.2, Chapter 18 (Marine Infrastructure and Other Users), ES (APP-073) provides a summary of that consultation. In respect of each project, the Applicant stated: "[t]*he Project has been sited in accordance with requirements of The Crown Estate's Offshore Wind Leasing Round 4 process, including that projects may not be located within 7.5km of an existing OWF unless the owner of the OWF has given their written consent. This requirement is considered to mitigate against the potential for the Project to impact the energy output from* [relevant third party project]". The Applicant notes the requirements of paragraph 2.8.342 that "*Where a proposed offshore wind farm potentially affects other offshore infrastructure or activity, a pragmatic approach should be employed by the Secretary of State*." The Applicant has therefore considered the potential for wake effects to take place, sited the Project accordingly and

9 See Regulation 14 and para 5, Schedule 4 of the infrastructure Planning (Environmental Impact Assessment) Regulations 2017

10 The Applicant notes the responses to the Examining Authority's Written Questions by Mona Offshore Wind Limited at REP3-062 at the Mona Offshore Wind Examination (ref 2.19)

11 The Applicant notes the submissions made by Morgan Offshore Wind Limited at REP1-016 of the Morgan Offshore Wind Examination

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			concluded that, in line with the principles of environmental impact assessment and the need for proportionality, no further assessment is required. Against this backdrop, a requirement requiring further assessment on wake effects prior to the erection of turbines, in a similar manner to requirement 25 of the Awel y Mor Offshore Wind Farm Order 2023 would be unnecessary and disproportionate, and therefore unreasonable, contrary to the provisions of the NPS EN-1, paragraph 4.1.16. *Site selection and design* At paragraphs 2.8.345 and 2.8.347, which relate to SoS decision making, NPS EN-3 states (emphasis added): *"2.8.345 As such, the Secretary of State should be satisfied that the **site selection and site design of a proposed offshore wind farm and offshore transmission has been made with a view to avoiding or minimising disruption or economic loss** or any adverse effect on safety **to other offshore industries**. Applicants will be required to demonstrate that risks to safety will be reduced to as low as reasonably practicable.* *2.8.347 Where a proposed development is likely to affect **the future viability** or safety of an existing or approved/licensed offshore infrastructure or activity, the Secretary of State should give these **adverse effects substantial weight in its decision-making**."* Paragraph 2.8.345 of NPS EN-3 does not apply to wake effects between proposed and existing or consented offshore wind developments. The need to undertake site selection and design of a proposed offshore wind farm in a manner which avoids or minimises disruption or economic loss applies to the relationship between the offshore wind farm and "*other offshore industries*", i.e. not offshore wind. Paragraphs 2.8.196 and 197, in relation to assessment, refer to "*other offshore infrastructure*". The interpretation of "*other offshore infrastructure*" as per paragraph 2.6.179 of the previous version of NPS EN-3 was a topic of considerable debate at the Awel y Mor Examination[12] and the conclusion was reached that other offshore wind farms fall within the meaning of "*other offshore infrastructure*" and, as such, NPS EN-3 was engaged in relation to wake effects. In respect of paragraph 2.8.345 specifically[13], the requirement to undertake site selection and design of an offshore wind farm to avoid or minimise disruption or economic loss only

12 Paragraph 5.14.41 to 5.14.86 of the Examining Authority's Report on the Awel y Mor Offshore Wind Farm DCO

13 Paragraph 2.6.184 of the previous version of NPS EN-3 is substantially similar to paragraph 2.8.345 of the current NPS EN-3.

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			applies to other offshore wind industries, not to the effects on other offshore wind farms. The arguments around the precise wording and applicability of these particular provisions had been well understood prior to the adoption of the latest NPS EN-3 on 17 January 2024. Indeed, the Secretary of State took the opportunity to remove some of the wording from the previous NPS EN-3 that had given rise to some ambiguity around the meaning of "other offshore infrastructure in that context.[14] Therefore, had the Secretary of State for the Department for Energy Security and Net Zero wished the provisions in paragraph 2.8.345 to apply to offshore wind, the opportunity would have been taken to update this paragraph of NPS EN-3 to use the expression "*other offshore infrastructure*", or similar, and not "*other offshore industries*". The provisions of the NPSs must be read as a whole. Paragraph 2.5.2 of NPS EN-3 sets out 'good design' will take account of a wide range of environmental factors. The Applicant has taken account of this wide range of factors, as is explained in Chapter 4 of the ES (Site Selection and Alternatives) (APP-059). In any event, the Applicant reiterates that the Project has been sited in accordance with requirements of The Crown Estate's Offshore Wind Leasing Round 4 process, including that projects may not be located within 7.5km of an existing OWF unless the owner of the OWF has given their written consent. This requirement is considered to mitigate against the potential for the Project to impact the energy output from any of the above third party projects. The potential for wake effects on the two closest of the above projects is mitigated further still by the introduction of the ORBA. In light of the above, the Applicant considers that a requirement of a similar nature to R25(1) of the Awel y Mor Development Consent Order would be, as a matter of principle, unnecessary and disproportionate, and therefore unreasonable, contrary to the provisions of the NPS EN-1, paragraph 4.1.16. In addition, the Applicant notes three notable challenges with the formulation of R25(1) of the Awel y Mor Development Consent Order. Firstly, R25(1) involves an assessment of wake effects and subsequent "*design provisions to mitigate any such identified effects* [on the existing OWF] *as far as possible*" (emphasis added). These must be submitted to and approved in writing by the Secretary of State. It is not clear to the Applicant how, in practical terms, the Secretary of State is to judge whether the design provisions mitigate the effects "as far as possible". For example, if the effect could be mitigated but at a net loss to overall generating capacity when the two offshore wind farms are considered together, the practical effect of this requirement would be to reduce the overall level of renewable energy generation across the two wind farms. This appears to the Applicant to be a reasonably foreseeable outcome in light of the comments in the Offshore Wind Leasing Programme Array Layout Yield Study that

[14] The wording "such as telecommunication cables or oil and gas pipelines, are located or other activities, including oil and gas exploration/drilling or marine aggregate dredging" was removed from the wording of the new paragraph 2.8.196 in the revised NPS EN-3 to avoid the implication that other offshore wind farms were not to be considered "other offshore infrastructure".

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			wake losses between offshore wind developments are considerably smaller than those which take place within arrays. Secondly, R25(1) gives no guidance as to how any conflicts with other design constraints, for example, shipping and navigation constraints or ground conditions would be resolved. Finally, the Applicant notes that the principal interaction at issue in the discussion of wake effects at Awel y Mor was that between Awel y Mor and Rhyl Flats, i.e. a bilateral interaction. By contrast, the projects listed in the table above are at different points of the compass in comparison to the Project. This therefore introduces the very real possibility that, any layout adjustments which seek to mitigate the wake effects of the Project on one third party project increase the wake effect for another. The imposition of a Requirement in similar terms to R25 in the Awel y Mor DCO would be very difficult to comply with in practical terms, highly likely to result in delay to the discharge of that requirement and therefore likely to result in delay to the deployment of renewable electricity to be generated from the Project. Neither a reduction in the capacity of the overall net position in terms of energy generation or delay to the deployment of critically important renewable electricity are outcomes which can be supported by the strong policy position in favour of renewable energy generation in NPS EN-1 and NPS EN-3. The Applicant therefore considers such a requirement to be imprecise and unreasonable. *Viability* In relation to paragraph 2.8.347 of NPS EN-3, no viability issue has been identified by any of the developers of the above projects, either during pre-application consultation or in their relevant representations. The Examining Authority for the Awel y Mor Offshore Wind Farm DCO concluded "*However, and with regard to paragraph 2.6.185 of NPS EN-3, the ExA does not consider that the 2% effect would affect the future viability of RFWF and that when balancing the 2% figure against the energy benefits of the Proposed Development this provides moderate weight against the scheme."* If a 2% wake loss effect, based on a separation distance of 5.1km, was not considered to affect the future viability of Rhyl Flats Wind Farm then substantially lesser impacts, based on a much greater (and over 20km) separation distance between the WTG Area and the arrays for each of the above offshore wind farms cannot be said to affect future viability. For the reasons set out above, the Applicant does not consider that a wake assessment is required.
Q1 OG 1.3	The Applicant Diamond Transmission Partners RB Limited	**Impacts on other offshore infrastructure arising from the potential extension of Special Areas of Conservation (SACs)** Concerns have been raised by Diamond Transmission Partners RB Limited	The Applicant confirms that the active subsea power cable identified in Paragraph 80 is an error and should refer to cable (not in use). The two cables shown in figure 3.6 as being within the SAC extension area are decommissioned telecommunication cables: ▪ VODAFONE AND KPN between the UK and the Netherland, and

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	Lincs Wind Farm Limited Race Bank Wind Farm Limited TC Lincs OFTO Ltd	[RR-017], Lincs Wind Farm Limited [RR-037], Race Bank Wind Farm Limited [RR-054] and TC Lincs OFTO Ltd [RR-066] regarding the possibility of impacts on the operation of other offshore infrastructure arising from the potential extension of the Inner Dowsing Race Bank and North Ridge SAC and/or the Haisborough, Hammond and Winterton SAC. The Applicant provided a response to these Relevant Representations on 19 September [PD1-071] noting that any proposals would be subject to consultation at a later date. The Applicant's Without Prejudice Benthic Compensation Evidence Base and Roadmap document [APP-248] provides outline details. Figures 3.5 and 3.6 identify the SAC extensions and other seabed users. ▪ Can the Applicant confirm what the "Subsea power cable (active)" as identified in paragraph 80 and on Figure 3.6 of the benthic compensation document connects to and the body that is responsible for it? Figure 3.6 also appears to show a second active power cable that is not listed in paragraph 80. Please confirm the status of this cable, what it connects to and the body responsible for it. ▪ Interested Parties, please elaborate on concerns raised in Relevant Representations and outline what action would be necessary to address them by the Applicant.	▪ BT between UK and Germany The Applicant appreciates this is not clearly shown in figure 3.6 and has included a revised figure in Appendix 1.14 Q1 OG 1.3.
Q1 OG 1.4	Breesea Limited, Soundmark Wind Limited, Sonningmay Limited, Optimus Wind Limited Hornsea 1 Limited Lincs Wind Farm Limited	**Potential monitoring implications of cumulative ecological and ornithological effects** Concerns have been in raised in Relevant Representations Breesea Limited, Soundmark Wind Limited, Sonningmay Limited, Optimus Wind Limited [RR-011], Hornsea 1 Limited [RR-028] and Lincs Wind Farm Limited [RR-037] regarding the potential impact of cumulative ecological effects on post construction monitoring of other OWFs. The Applicant has responded [PD1-071] with a conclusion that post construction monitoring will not be impacted. ▪ Please elaborate on concerns identified in that post construction monitoring might be impacted. ▪ Provide comments on the Applicant's conclusions and reasoning.	
Q1 OG 1.5	The Applicant Breesea Limited, Soundmark Wind Limited, Sonningmay Limited, Optimus Wind Limited Hornsea 1 Limited IOG North Sea Limited Lincs Wind Farm Limited Orsted Hornsea Project Four Limited Orsted Hornsea Project Three (UK) Limited	**Vessel access and displacement** RRs s from a significant number of operators of other offshore infrastructure highlight issues relating to potential vessel access and displacement and the need for co-ordination. The Applicant has provided responses to these RRs [PD1-071]. ▪ Do the Interested Parties have any comments in response to the Applicant's position on the respective RRs? ▪ Please provide updates on any negotiations to agree and secure any necessary mitigation.	The Applicant has assessed the potential impacts to other operators within Chapter 15 Shipping and Navigation (APP-070) and within the Appendix 15.1 Navigational Risk Assessment (NRA) (APP-171). Embedded mitigation, including industry standard measures, are detailed in Table 15.7 in Chapter 15 (APP-070) and when implemented it is assessed that there are no significant impacts in EIA terms. Furthermore, the NRA support these conclusions and assesses a significance of risk for all impacts as 'tolerable' or 'broadly acceptable'. The Applicant therefore considers that no further mitigation is required in addition to the embedded mitigation, so no further negotiations are planned to be undertaken.

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	Perenco UK Limited Race Bank Wind Farm Limited Shell U.K. Limited		
Q1 OG 1.6	The Applicant	**Helicopter Access Report – assumed turbine height** Paragraph 34 of the Helicopter Access Report [APP-175] states that it is assumed that turbines will be "greater than 1,000ft high". This equates to greater than 304.8m. Table 18.11 specifies the maximum design scenario for Chapter 18 [APP-073] but does not identify the maximum height of Wind Turbine Generators (WTGs). Elsewhere in the Environmental Statement (ES) and the dDCO, a maximum blade tip height of 403m is specified. Can the Applicant clarify why the assumptions in the Helicopter Access Report differ from those applied in the ES? Should a greater height be assumed?	The phrase "greater than 1,000ft high" was used in the context of the helicopter approach and take-off distances required. The WTGs will not be overflown as part of approach or take-off profiles, and all turns will be commenced before reaching an appropriate buffer from the WTGs. Any increase in the WTG height will not have any additional impact on the helicopter approach and take-off distances required. Take off distances are a consideration within the Helicopter Access Report (APP-175) , although not explicitly stated that overflying the WTGs would increase the distances required. Distances are calculated without overflight of the WTGs for two reasons: firstly, the actual heights are still unknown at this point; secondly, overflight would increase the approach and take-off distances required. In Instrument Meteorological Conditions (IMC) the helicopter would have to remain 1,000ft above the WTGs, and at least 500ft in the case of VMC. An offshore instrument approach (Airborne Radar Approach (ARA)) commences from 1,500ft at 6nm. Increasing this height from 1,500ft to 2,000+ft, because the WTGs are being overflown, would lengthen the approach distance by circa > 1.5nm. In addition, distance must be allowed to position to the descent point, so it would increase beyond the 9nm already assumed. For take-off in IMC it has been assumed the helicopter would turn at least 1nm before the WTGs. Encroaching within 1nm in IMC would require the helicopter to be at WTG height + 1,000ft, so increasing the take-off distance required. For a take-off into Visual Meteorological Conditions (VMC) a helicopter has to remain at least 150m laterally from the WTGs. All distances are from the turbine tips at their worst case orientation, not the central location of the WTG.
Q1 OG 1.7	Maritime & Coastguard Agency (MCA)	**ES Chapter 18 and the Helicopter Access Report** The ExA notes that the Written Representation [REP1-044] submitted by the MCA which addresses details in Chapter 15 of the ES – Shipping and Navigation [APP-070] and the Navigational Risk Assessment [APP-171]. Chapter 18 of the ES - Marine Infrastructure and Other Users [APP-073] and the Helicopter Access Report [APP-175] also provide commentary and conclusions in relation to Search & Rescue helicopters. ▪ Please can the MCA confirm if it has any concerns regarding Chapter 18 of the ES - Marine Infrastructure and Other Users or the Helicopter	

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		Access Report? If so, outline what they are and how they should be addressed.?	
Q1 OG 1.8	The Applicant	**Structures exclusion zones** Paragraph 108 of Chapter 18 refers to structures exclusion zones of 1nm that "will be in place around Malory platform, Barque PB platform and the Galahad Tee pipeline joint in order to allow for helicopter access for maintenance activities on these assets…". The structures exclusion zones do not appear to be listed as embedded mitigation in Table 18.2 or in the Schedule of Mitigation [PD1-058]. The distance of 1nm has been informed by the Helicopter Access Report [APP-175]. ▪ How are the 1nm exclusion zones secured? ▪ Do relevant Interested Parties have any specific comments to make on the exclusion zones?	The Applicant is continuing to engage with Perenco and Shell in relation to relevant exclusion zones, which the Applicant foresees being secured by Protected Provisions. The Applicant most recently met with Perenco to discuss Protected Provisions related to the Malory platform, and the Galahad Tee on 26th November 2024 and is scheduled to meet with Shell to continue discussions on the Protected Provisions related the Barque PB platform on 12th December 2024. The Applicant will provide an update in relation to these Protected Provisions at Deadline 4.
Q1 OG 1.9	The Applicant	**Helicopter access agreements and Protective Provisions** Please provide clarification of the likely timing of the outcome of discussions with Perenco Gas (UK) Limited, Perenco North Sea Limited, Everard Energy Limited, Ithaca MA Limited, and RockRose (UKCS2) Limited and Shell U.K. Limited as outlined in the planning obligations and side agreements tracker [REP1-023].	The Applicant continues to engage with Perenco (who also act on behalf of Everard Energy Limited, Ithaca MA Limited, and RockRose (UKCS2) Limited) in relation to this matter, including in relation to the drafting of Protective Provisions, most recently meeting on 26th November 2024, and remains confident of reaching an agreement with Perenco before Deadline 5. The Applicant also continues to engage with Shell U.K. Limited on the same topics with meeting scheduled in early December to discuss updated draft Protection Provisions.
Q1 OG 1.10	The Applicant	**Cumulative Interference to Helicopter Access to Oil and Gas Infrastructure** Paragraph 147 of Chapter 18 of the ES [APP-073] identifies cumulative effects with the Dudgeon Extension Project OWF in relation to the Excalibur platform with cross reference to further the Helicopter Access Report [APP-175]. A conclusion of minor adverse effects is subsequently reached regarding Impact 10 Cumulative Interference to Helicopter Access to Oil and Gas Infrastructure. Paragraph 108 of the Helicopter Access Report also appears to identify cumulative effects with the Lancelot platform. ▪ Do the conclusions for Impact 10 in Section 18.8.1.2 reflect all cumulative interferences identified in the Helicopter Access Report? ▪ If not, what are the implications for the conclusion in the ES?	The Applicant can confirm that the conclusions for Impact 10 in Section 18.8.1.2 (APP-073) reflect all cumulative interferences identified in the Helicopter Access Report (APP-175). Cumulative interference (as identified in APP-175) is considered to only represent a minor shift to the baseline conditions, and furthermore will not impact the safety operations, therefore the magnitude of impact has been assessed as low. The omission of a specific mention of Lancelot Platform in paragraph 147 was an oversight in APP-073, however the overall conclusion of minor adverse for Impact 10 remains the same and there are no implications for other conclusions of the assessment.
Q1 OG 1.11	The Applicant	**Oil and gas operators not identified in the Applicant's planning obligations and side agreements tracker.** The Applicant's response to the Relevant Representation from IOG North Sea Limited [RR-031] indicates that engagement is continuing between the parties. However, details of any potential agreements with IOG North Sea Limited do not appear to be included in the Applicant's planning obligations and side agreements tracker [REP1-023]. Table 18.5 of the ES [APP-073] also lists Ineos Industries, Harbour Energy PLC and Spirit Energy as operators but they are not included in the tracker. ▪ Is agreement being sought with these operators? If not, why not? ▪ Please provide details of timing and scope of any agreement that are being sought.	The Applicant can confirm that on 15th November 2024 the North Sea Transition Authority (NSTA) confirmed to IOG North Sea Limited that P2348 production licence will cease on December 312024. Furthermore, IOG North Sea Limited have confirmed to the Applicant that if it would be helpful to the Examining Authority they would withdraw their Interested Party status should this be helpful to the Examination process. The Applicant will not enter agreements with Ineos Industries, Harbour Energy PLC or Spirit Energy as such an agreement is not required. While the spatial extent of their respective licence blocks overlap with the Direct Study Area which is shown in Figure 18.1 in Volume 2 Chapter 18 Marine Infrastructure and Other Users Figures (APP-108), as set out in Table 18.7 of Chapter 18 Marine Infrastructure and Other Users (APP-073), there are no assets (e.g. oil and gas platforms) operated by Ineos Industries, Harbour Energy PLC or Spirit Energy within the Direct Study Area.

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Q1 OG 1.12	The Applicant Perenco UK Limited IOG North Sea Limited	**Line of Sight microwave (LOS) communications** Paragraph 110 of Chapter 18 of the ES [APP-073] acknowledges that project infrastructure may affect the following links: West Sole A to Malory, West Sole A to Lancelot, West Sole A to Excalibur and Malory to Excalibur. Perenco UK Limited [RR-053] identify concerns for LOS communications at the Waveney platform which do not appear to have been addressed in the ES. IOG North Sea Limited [RR-031] also seeks confirmation that LOS communication between fixed installations and its chosen onshore gas terminal would not be obstructed by any individual wind turbines. ▪ Can the Applicant provide comments on impacts on the Waveney platform and implications for the conclusions in the ES? ▪ Can the Applicant provide feedback on the likelihood that LOS communications for IOG North Sea Limited's might be impacted by the Proposed Development? ▪ Can the Applicant provide an update on mitigation, including details of measures required, progress an agreement between parties and how measures would be secured.	The Applicant has assessed Waveney in the Helicopter Access Report (APP-175), in which it concluded no significant impact on access. Regarding Line of Sight, there is continuing engagement between the Applicant and Perenco UK Limited on this matter with a view to agreeing a suitable mitigation solution. The presence of the Project WTGs during the operational and maintenance phase has the potential to obstruct or interfere with microwave links that may be used as part of the communications systems on oil and gas platforms. As outlined previously, consultation with Perenco has indicated the presence of the following microwave links: ▪ West Sole A to Malory; ▪ West Sole A to Lancelot; ▪ West Sole A to Excalibur; and ▪ Malory to Excalibur. Microwave links operate on a LOS basis and may therefore be affected by the presence of Project infrastructure where it may interrupt this LOS, resulting in a loss of or interruptions to direct communication between platforms. An obstruction of this type would be of long-term duration, either the lifetime of the Project or until the relevant oil and gas installations are decommissioned. The Applicant has identified several mitigation measures that are available to avoid an impact on Perenco's Line of Sight apparatus. Engagement is currently ongoing with Perenco and appropriate technical mitigation (if required) will be included in Perenco Protective Provisions. This impact is therefore assessed to only represent a minor shift away from baseline conditions due to the appropriate application of mitigation measures (subject to discussion with the operators) and therefore the ES conclusion of low magnitude remains valid. The Applicant understands that IOG North Sea Limited's representation was in reference to potential future Line of Sight communication apparatus. The Applicant can confirm that on 15th November 2024 the North Sea Transition Authority (NSTA) confirmed to IOG North Sea Limited that P2348 production licence will cease on December 312024. Furthermore, IOG North Sea Limited have confirmed to the Applicant that if it would be helpful to the Examining Authority they would withdraw their Interested Party status should this be helpful to the Examination process.
Q1 OG 1.13	The Applicant	**Impacts scoped out of the assessment – Effects on oil and gas assets subject to decommissioning** Table 18.2 of the ES [APP-073] states that effects on assets subject to decommissioning have been scoped out the ES on the basis that the Applicant has been advised by asset owners that they are *"anticipated to be fully removed prior to construction activities in the array area."* Are there any changes to the timescales for assets that are due to be decommissioned? If so, please confirm any implications.	The Applicant is continuing to engage with the owners of assets subject to decommissioning. Based on current understanding, the Applicant is not aware of any changes since submission of the DCO Application to the timescales of assets due to be decommissioned.
Q1 OG 1.14	The Applicant	**Impacts scoped out of the assessment – marine disposal areas**	The Applicant has presented the most available public information within Chapter 18 (APP-073). Information from the UK disposal layer data provided on the Cefas data

Question ID	Question addressed to	Question	Response
	Race Bank Wind Farm Limited	Paragraph 46 of Chapter 18 [APP-073] of the ES states that *"The only open disposal area in the Direct Study Area is the Race Bank OWF (HU126), used for the construction of the Race Bank OWF. As this windfarm is currently operational, this site is assumed to be no longer in use, and therefore disposal operations to this area will not be impacted by Project activities. Marine disposal areas have therefore been scoped out of further assessment."* ▪ Please provide confirmation of whether the disposal area is no longer in use. ▪ If the disposal area is still in use, please outline the implications.	portal[15], describes the Race Bank OWF (HU126) as having a status of disused. Furthermore, the Cefas data portal licence data states the following: ▪ Only to be used for levelling works and arisings from Race Bank OWF ▪ To be closed on completion As such, the Applicant has scoped out this disposal site from assessments.
Q1 OG 1.15	The Applicant	**Maximum design scenario – vessel trips** The number of return vessel trips specified in Table 18.11 of the ES [APP-073]. ▪ How are these figures calculated? ▪ Are the number of trips quoted during the construction phase given per year or do they represent the total number during the construction phase? ▪ What controls are in place to ensure that maximum trip numbers are not exceeded?	Vessel trip numbers are presented as total vessel trips for the construction phase (not per year) and have been calculated using experience from other recent projects and specifications of vessels likely to be available during the construction period. The return vessel trips specified within table 18.11 have been used to inform relevant assessments throughout the ES and included in the maximum design scenario (MDS). In accordance with the Infrastructure Planning (Environmental Impact Assessment) Regulations 2017 and detailed in Advice Note Nine: Rochdale Envelope (The Planning Inspectorate, 2018), Paragraphs 3.6.1 – 3.6.3 of NPS EN-3 and Paragraphs 4.3.10 – 4.3.17 of NPS EN-1 the ES provides a maximum design scenario to allow for flexibility. The maximum number of vessel trips is set out in Table 1 of the Outline Vessel Management Plan (PD1-064). Condition 13(1)(e)(vi), Part 2, Schedules 10 and 11 of the dDCO requires a project environmental management plan to be submitted to and approved by the MMO prior to commencement of the licensed activities (or any part). The project environmental management plan is to include details of a vessel management plan, in accordance with the outline vessel management plan. Condition 14(5), Part 2, Schedules 10 and 11 of the dDCO requires that the licensed activities are carried out in accordance with the approved plans, unless otherwise agreed in writing with the MMO.
Q1 OG 1.16	The Applicant	**Existing environment and study area – offshore windfarms** Paragraph 17 of Chapter 18 [APP-073] of the ES acknowledges that the 1km buffer zone around the project's offshore Export Cable Corridor (ECC) includes the Triton Knoll export cable route. The Race Bank and Lincs OWF array areas are also identified as overlapping with the project ECC buffer zone. However, Figure 18.2 also indicates that indicates that the Triton Knoll cable route falls within the Direct Study area for Biogenic Reef Restoration Areas and the Offshore Reactive Compensation Platform Area. Buffer zones around Biogenic Reef Restoration Areas also include parts of the Race Bank and Lincs OWF array areas. ▪ Please confirm if the implications of Biogenic Reef Restoration Areas and the Offshore Reactive Compensation Platform Area are considered in the assessment. Figure 18.2 also shows a windfarm cable agreement that falls within the direct study area buffer of the eastern Artificial Nesting Structure (ANS) area.	The Applicant confirms that where the Offshore ECC implications are mentioned within paragraph 17, that this inherently includes consideration of the ORCP areas which are situated fully within the Offshore ECC limits. The ORCP is also listed specifically in Table 18.11 (Maximum Design Scenario) and as such has been fully assessed within section 18.7. Biogenic reef restoration areas are also considered within Table 18.11. Therefore, despite not being discussed specifically in paragraph 17, all impacts from the ORCP and biogenic reef restoration areas have been considered within Section 18.7 of APP-073. The Applicant can confirm this cable which overlaps with the study area of the eastern ANS (but is not within the proposed Works Area) is connected to Hornsea Project Three. This was specifically listed within the assessment provided in Chapter 18 Marine Infrastructure and Other Users (APP-073), however, all impacts associated with the ANS were considered within the impact assessment (section 18.7) as detailed within Table

[15] Cefas (2023) 'UK Disposal Site Layer'. https://data.cefas.co.uk/view/407

Question ID	Question addressed to	Question	Response
		Which windfarm does this cable route connect to? ▪ Has this cable route and its effect on connecting infrastructure been assessed? Table 18.4 is not clear in this regard.	18.11. Therefore, despite the omission from Table 18.4, all impacts to the Hornsea Project Three cable have been assessed within Section 18.7.1.1 and Section 18.7.1.2 of APP-073.
Q1 OG 1.17	The Applicant	**Existing environment and study area – oil and gas licenced blocks** Table 18.5 of the ES [APP-073] identifies licenced blocks within the direct study area and specifies licence end dates. However, "Extant, no end date listed" is stated for several licences. ▪ What is the end date for these licences? ▪ Could there be any implications arising from the potential decommissioning of facilities in these licence blocks? Could such works coincide with construction, maintenance, re- powering or decommissioning of the Proposed Development?	As outlined in Chapter 18 Marine Infrastructure and Other Users (APP-073), information on oil and gas licence blocks has been sourced from the North Sea Transition Authority (NSTA) interactive web map. The information available on the NSTA interactive web map lists these licence blocks as 'extant', with no end date provided. The NSTA authority acts to license and regulate offshore oil and gas, and information from this source is therefore considered to be the best available. As outlined in the WMS (UIN HCWS504): *"It is important to note that the oil and gas licences grant exclusivity to explore the licence area, but they do not confer consent for any operational activity. This would require separate consents from the North Sea Transition Authority."* Licence blocks themselves do not indicate the presence of infrastructure. Infrastructure or activities located within licence blocks, which have received consent, and for which an appropriate level of information is available to carry out an assessment, have been considered throughout APP-073 (as well as within the chapter-specific cumulative assessments). Where an appropriate level of information is available, surface and subsurface infrastructure (including pipelines), have been considered within Section 18.4.3.3 (including Table 18.7 and Table 18.8) and throughout the assessment in Section 18.7. The implications of potential decommissioning of these facilities have therefore been assessed. In all cases, if works are anticipated to coincide with those associated with the Proposed Development, then formal cooperation and liaison procedures will be sought with the relevant oil and gas operators.
Q1 OG 1.18	The Applicant	**Existing environment– hydrocarbon fields** Paragraph 24 of the ES [APP-073] states *"There are 1615 hydrocarbon fields which overlap with the Direct Study Area…"* Please confirm if the figure of 1615 should read as 15 as listed in Table 18.6?	The Applicant confirms this is an error, there are 15 hydrocarbon fields which overlap with the Direct Study Area.
Q1 OG 1.19	The Applicant	**Existing environment – surface structures** Paragraph 28 of Chapter 18 of the ES [APP-073] states that *"there are 1312 platforms are located within the Direct Study Area…"* ▪ Should the figure of 1312 read as 12? Paragraph 28 also states that "There are a total of 626 permanent structures within the Helicopter Access Study Area" ▪ Should 626 read as 26 as listed in Table 18.7? Table 18.7 identifies the status of the Amethyst B1D platform as "not in use". However, Figure 18.5 shows the platform as being "active". ▪ Is the platform active or not in use?	The Applicant confirms these are errors and there are 12 platforms located within the Direct Study Area and 26 permanent structures within the Helicopter Access Study Area. The Applicant confirms that Amethyst B1D platform is not in use, with a decommissioning plan publicly available.
Q1 OG 1.20	The Applicant	**Existing environment - subsea cables**	The Applicant confirms that Eastern Green Link 3 and 4 are the cables (identified in paragraph 44 of Chapter 18 (APP-073)) that could pass through the study area but not

Question ID	Question addressed to	Question	Response
	National Grid Electricity Transmission plc	Paragraph 44 of Chapter 18 of the ES [APP-073] states that the Offshore Transmission Network Review (OTNR) process has identified possible cables that may pass through the study area but details are not yet known. *"In addition, National Grid are proposing two 'bootstrap' subsea transmission cables from Scotland which are also expected to make landfall in Lincolnshire. At the time of writing, the status and details of these additional subsea cable developments are not available in the public domain, and therefore have not been considered further"* Can the Applicant and National Grid provide an update on these projects?. Please detail any related implications for the project in relation to subsea cables?	cross the offshore Export Cable Corridor, if consent for these projects is granted. The submission of the Outer Dowsing ES was on 20th March 2024, since that time, a scoping report of Eastern Green Link 3 and 4 was published on 29th July 2024 and a scoping opinion was adopted by the Secretary of State on 5th September 2024. The Applicant will review this information and submit an update in due course.
Q1 OG 1.21	The Applicant Interested Parties	**Proximity agreements** The Applicant's planning obligations and side agreements tracker [REP1-023] states that it is preparing template proximity agreements for discussion in the interim with final agreements to follow, post-consent. Agreements for five OWFs are listed. ▪ When will draft agreements be available for consideration? ▪ In the absence of any agreement, what degree of confidence can the SoS have that outstanding matters can be resolved? ▪ Are any proximity or commercial agreements being sought with other relevant marine users, for instance, aggregate operators, as suggested in paragraph 81 of Chapter 18 of the ES [APP-073]? If not, why not?	The Applicant notes there are four (not five) offshore wind farms referenced in the planning obligations and side agreements tracker (REP1-023). The draft agreements will not be submitted into the Examination as they are commercially confidential. It should be noted that such agreements are usually entered into post consent and not available to an Examining Authority. The established industry practice is that crossing and proximity agreements are finalised post-consent with the relevant asset owners, with consideration given to the industry best practice guidance. The design of such crossings would be finalised at the detailed design stage. The Applicant considers that there is nothing unusual about the anticipated crossings and proximity agreements and therefore does not expect there to be any difficulties in the feasibility of crossings and agreeing a suitable design.
Q1 OG 1.22	The Applicant	**Crossing agreements** Chapter 18 of the ES [APP-073] makes multiple references to crossing agreements with other operators. The Applicant's planning obligations and side agreements tracker [REP1-023] does not refer to any such agreements as being under discussion. Please confirm if the necessary crossing agreements are being discussed with other operators.	The Applicant will update at Deadline 6 the planning obligations and side agreements tracker [REP1-023] to reflect the following crossing agreements that may be required, subject to final design of the array cable and export cable configuration: ▪ Perenco (Malory to Galahad-Tee, PL1677) ▪ Perenco (Galahad to Galahad-Tee, PL1677, PL1166) ▪ Perenco (Pickerill A to Pickerill B), Not in Use ▪ TotalEnergies (SEAL pipeline, PL1570) ▪ Harbour Energy PLC (Viking AR to Theddlethorpe), Not in Use ▪ Harbour Energy PLC (Loggs PP to Theddlethorpe OOS Gas Line), Not in Use Discussions are progressing with the above operators to prepare for the event that a crossing agreement may be required, subject to detailed cable route engineering of both the export cable and inter array cables. The established industry practice is that crossing and proximity agreements are finalised post-consent with the relevant asset owners, with consideration given to the industry best practice guidance. The design of such crossings would be finalised at the detailed design stage. The Applicant considers that there is nothing unusual about the anticipated crossings and proximity agreements and therefore does not expect there to be any difficulties in the feasibility of crossings and agreeing a suitable design.
Q1 OG 1.23	The Applicant	**Future baseline** Section 18.4.3.11 of the ES [APP-073] outlines proposed infrastructure or licensed activities with lower levels of certainty or information available which has meant	The Applicant is not aware of any other updates required to the future baseline but is continuing to engage with stakeholders and review relevant applications and will provide updates to the examination where necessary to do so.

Question ID	Question addressed to	Question	Response
		that "*effects on these developments cannot be fully determined".* Listed proposed activities include Aggregate Area 1805 where it is understood that a marine licence application for this area will be submitted with a view to production. The ExA notes from the Applicant's Procedural Deadline submission on 19 September 2024 [PD1-081] that a Marine Licence Application (MLA/2024/00227) has now been made to permit extraction for 15 years. The implications of this update for the ES are considered by the Applicant [PD1-081]. ▪ Please confirm if any further updates are available to the future baseline and confirm any implications for the ES	
Q1 OG 1.24	The Applicant	**Embedded mitigation - Outline Cable Specification and Installation Plan (CSIP) and subsea cable depth** Table 18.12 of the ES [APP-108] states that subsea cables will be installed to a minimum target burial depth of 1m. Reference 34 in the Schedule of Mitigation [PD1-058] states that this depth is implemented via dDCO Schedule 10, Part 2 - Condition 13(1)(d)(ii) and DCO Schedule 11, Part 2 Condition 13 (1)(d)(ii) with the Outline CSIP. However, neither Schedule refers to a minimum of 1m minimum depth. ▪ Clarify if a minimum 1m subsea depth is intended to be secured as mitigation.	The Applicant can confirm that subsea cables will be installed to a minimum target burial depth of 1m but notes that this commitment was omitted from the Outline Cable Specification and Installation Plan (APP-278). An updated version of the Outline Cable Specification and Installation Plan (version 3 submitted at deadline 2), with the commitment included, has been submitted at Deadline 2. This commitment is secured by dDCO Schedule 10, Part 2 - Condition 13(1)(d)(ii) and DCO Schedule 11, Part 2 Condition 13 (1)(d)(ii) which states that cable specification, installation and monitoring will be incorporated in the construction method statement, in accordance with the outline cable specification and installation plan, and that "The licensed activities or any part of those activities must not commence until the following (as relevant to that part) have been submitted to and approved in writing by the MMO". Condition 14(5), Part 2, Schedules 10 and 11 of the dDCO also require the licensed activities to be carried out in accordance with the approved plans, unless otherwise agreed in writing with the MMO.

1.20 Onshore Construction Effects

Table 1.20: Onshore Construction Effects

Question ID	Question addressed to	Question	Response
Onshore Construction Effects			
Q1 OC 1.1	The Applicant	**Working Hours for Construction** In reference to Paragraph 40 of the Outline Code of Construction Practice [PD1-038]: *3. With the exception of activities undertaken in accordance with sub paragraph (2)(f) and as provided in paragraph (5) all construction works which are to be undertaken outside the hours specified in paragraph (1) must be agreed in advance with the relevant planning authority* Please identify the location of paragraph (5) within the Outline Code of Construction Practice [PD1-038]?	The Applicant notes this error and has updated the draft Development Consent Order to correctly refer to paragraph (4).
Q1 OC 1.2	The Applicant	**Outline Code of Construction Practice - Bank Holiday** In reference to Paragraph 39 of the Outline Code of Construction Practice [PD1-038]:	Bank Holiday means a day that is a Bank Holiday in England and Wales under section 1 of the Banking and Financial Dealings Act 1971.

Question ID	Question addressed to	Question	Response
		Onshore construction activities will normally be carried out between 07.00 hours and 19.00 hours, Monday through Saturday with no Sunday or bank holiday working unless otherwise agreed with the local authority. Can the Applicant confirm that here 'Bank Holiday' means a day that is a Bank Holiday in England and Wales under section 1 of the Banking and Financial Dealings Act 1971?	
Q1 OC 1.3	The Applicant National Grid Electricity Transmission Plc (NGET)	**Cumulative impacts - Construction** NGET's Relevant Representation [RR-048] raises the concern about cumulative impacts of construction due to the following projects: ▪ the Eastern Greenlink 3 Project (EGL3) ▪ the Eastern Greenlink 4 Project (EGL4) ▪ Grimsby to Walpole Project **To NGET:** How does the Applicant's response to Relevant Representations [PD1-071] address the concerns raised? Explain your reasoning and provide your recommendations to address them. **To the Applicant:** Provide an update to the ExA regarding the discussions with NGET on NGET3 and NGET9 as mentioned in Table 5 of draft Statement of Common Ground (SoCG) between the Applicant and NGET [REP1-032]?	The Applicant and NGET continue to have constructive engagement regarding both the development of the NGET future projects and the Protective Provisions that NGET have proposed, including in respect of the protection of the future projects. The Applicant has a workshop arranged with NGET on 28/11, at which it will try to reach agreement regarding the small number of outstanding points in the protective provisions. Regarding the Statement of Common Ground between the Applicant and NGET (REP1-032), the Applicant can provide the following update: NGET3 (Cumulative Assessment) The Applicant understands that whilst NGET continues to develop its designs, the assumptions upon which the Applicant based its cumulative assessment remain robust. NGET 9 (Protective Provisions) The Applicant is considering amendments to the protective provisions proposed by NGET. The Applicant hopes to be in a position to revert to NGET shortly with a view to agreeing a set of protective provisions for inclusion in the DCO.
Q1 OC 1.4	Local Planning Authorities (LPAs)	**Development Plans and Policies** Confirm if you agree with the Applicant's analysis of the policies relevant to the Onshore Construction Effects of the Proposed Development. Inform the ExA and relevant Interested Parties of any alterations to the Development Plan in your areas since the Application for the Proposed Development was submitted. State whether any further changes are expected before the close of this Examination.	
Q1 OC 1.5	The Applicant	**Construction Phasing** The LIR of LCC [REP1-053, Paragraph 11.9] mentions the need for a strong commitment to a phased construction programme, secured within the Development Consent Order (DCO) application. Can the Applicant confirm this commitment with justification and explain how it will be secured?	Schedule 1, part 3, Requirement 8 of the Draft Development Consent Order secures that the detail of the stages (equivalent to phases) of works are to be submitted and approved by the relevant planning authority. The detailed design stage will be undertaken post consent, which will include construction phasing. Each stage of the onshore works will not be able to commence until the written scheme setting out the stages of the onshore transmission works have been submitted to and approved by the planning authority.

1.21 Seascape and Visual

Table 1.21: Seascape and Visual

Question ID	Question addressed to	Question	Response
Seascape and Visual			
Q1 SV 1.1	The Applicant Natural England (NE) Local Authorities	**Duty to further the purposes of National Landscapes** Paragraph 5.10.7 of National Policy Statement (NPS) EN-1 states that *"For development proposals located within designated landscapes the Secretary of State should be satisfied that measures which seek to further purposes of the designation are sufficient, appropriate and proportionate to the type and scale of the development."* Paragraph 5.10.8 of NPS EN-1 goes on to clarify that the *"duty to seek to further the purposes of nationally designated landscapes also applies when considering applications for projects outside the boundaries of these areas which may have impacts within them."* ▪ Can the Applicant explain how it has considered this duty? ▪ Do NE and the Local Authorities have any comments to make in relation to the duty and the Proposed Development? Is the duty applicable? If so, has it been met?	There are nationally designated landscapes within the Seascape, Landscape and Visual Impact Assessment (SLVIA) study area for the Project. These comprise the Lincolnshire Wolds Area of Outstanding Natural Beauty (AONB) and Norfolk Coast AONB, both of which are also known as National Landscapes. However, it is assessed in 6.1.17 Environmental Statement (ES) Chapter 17 Seascape, Landscape and Visual Impact Assessment (AS1-044) that the effects on landscape and visual receptors within these designated landscapes would be no greater than minor and not significant, as a result of the Project. Therefore, it is considered that the Project would not significantly or adversely affect the defined special qualities or statutory purposes of the Lincolnshire Wolds AONB or Norfolk Coast AONB designations. NE has not expressed any concerns in relation to the potential seascape, landscape and visual effects of any structures proposed within the Project array area. During statutory consultation, NE advised that *"the ORCPs would not have any significant visual effects given their heights and the proposed 7km distance from shore, we would also be satisfied with the proposed "at least 12km" distance".* The Applicant is aware that the Levelling-up and Regeneration Act 2023 (LURA, 2023) places a duty in respect of all 'relevant authorities' to 'seek to further the purpose' of conserving and enhancing the natural beauty of AONBs. The Applicant considers that the project reasonably conserves the special qualities and features of the Lincolnshire Wolds AONB and Norfolk Coast AONB, and that reasonable efforts have been made through the siting and design of the Project to avoid or minimise significant adverse impacts. As the Project is outside the designated landscape, the relevant policy test is that *"[t]he Secretary of State should be satisfied that measures which seek to further the purposes of the designation are sufficient, appropriate and proportionate to the type and scale of the development"* (NPS EN1 5.10.8). The Applicant takes the strong position that the impact of the Project on the special qualities of the Lincolnshire Wolds AONB or Norfolk Coast AONB designations is no greater than minor, not significant and indirect, and does not result in 'harm' that requires to be offset. To reiterate, the Lincolnshire Wolds AONB is located over 63.9km from the Project array area at its nearest point and the Norfolk Coast AONB over 55km. The Applicant submits, given there are no significant effects, it is not proportionate for further enhancement measures to be imposed and that current measures are sufficient and appropriate. The Applicant submits that no such necessity has or can be demonstrated given the assessed, and agreed, level of potential worst case impact on National Landscapes is not significant. The Applicant notes that the duty to 'seek to further' (LURA, 2023) was considered by the Secretary of State (SoS) in determining the Sheringham and Dudgeon Extension Projects DCO (2024). The duty was held to be met because in that case the "the Applicant has taken reasonable precautions to avoid compromising the purpose of the designation". The Applicant would submit that it has also taken reasonable precautions and meets the standard as applied by the SoS.

Question ID	Question addressed to	Question	Response
Q1 SV 1.2	The Applicant NE Local Authorities	**Proposed Lincolnshire Heritage Coast** Table 17.2 of Environmental Statement (ES) Chapter 17 [AS1-044] identifies that *"Natural England and the local planning authority have ambitions for a Lincolnshire Heritage Coast".* However, as the proposal was considered at the time to be at an early stage with little detail available, it is not assessed in the ES. ▪ What is the current status of the proposed Heritage Coast? If available, what are timescales for its designation? ▪ Is any further consideration of the proposed Heritage Coast required in relation to the Proposed Development?	NE confirmed that no information would be available in relation to a potential Lincolnshire Heritage Coast prior to the application being submitted. Therefore, no assessment can be made in relation to this possible future Heritage Coast, and no weight could be given to it in the assessment. The Applicant is not aware of any subsequent progress in relation to the proposed Lincolnshire Heritage Coast.
Q1 SV 1.3	The Applicant	**Assessment of Offshore Reactive Compensation Platform effects (ORCPs) during construction** Paragraph 103 of Chapter 17 of the ES [AS1-044] acknowledges the potential for adverse effects arising from construction activities *"including the presence of jack-up vessels and/or dynamic positioning heavy lift vessels for the installation of foundations, substructures and the ORCPs itself, windfarm service vessels and accommodation vessels.".* Paragraph 104 goes on to state that *"The size/scale of the changes during this phase would be no greater than the operational phase, and the geographic extent of the change would also be no greater than the operational phase.".* The Examining Authority (ExA) also notes that the maximum design scenario assessed (Table 17.8) does not specify the number or size of jack-up vessels and/or dynamic positioning heavy lift vessels for the installation of foundations or other vessels that may be used during construction. ▪ What is the size and number of vessels that may be used during construction and how has this been considered in the assessment? ▪ Clarify how the size and scale of changes during construction would be no greater than during operation when construction vessels would be visible alongside ORCPs, particularly during the latter phase of construction when the scale of the ORCPs would be similar to that during operation.	The assessment of seascape, landscape and visual effects on construction activities has assumed the installation of all offshore substations and the ORCPs would occur within an 18 month period (section 11, Chapter 3 Project Description, APP-058). This is considered to comprise a short term duration in the context of the seascape, landscape and visual methodology (section 17.5.6.2, Chapter 17 Appendix 1 Seascape, Landscape and Visual Methodology, App-174). As part of the judgements made, experience drawn from other offshore wind farm developments in relation to size of vessels and the length of time for which each vessel would be required. For example, the installation vessel will be the largest vessel required, and it has been assumed that the height of the installation vessel would not exceed 240m LAT, which would relate to the maximum height of the crane, irrespective of installation vessel type. The vessel deck and bridge, the most visible components from afar, would be much lower than the crane. Support vessels and transport vessels would be notably smaller than the installation vessel. The 18 month timeframe for the construction of all offshore substations and the ORCPs (section 11, Chapter 3 Project Description (APP-058), allows for the flexibility required for offshore wind farm construction. However, lifting and installation of the ORCP foundations and topsides, by the installation vessel, would take 6 months or less. Supplementary commissioning activities would be undertaken by support vessels. Support vessels and transport vessels would be notably smaller than the installation vessel(s). The construction of the ORCPs would result in a short-term period of works and the vessel activities involved would cease and be removed following completion of the structures. The maximum design parameters for the ORCPs are as per the small OSS presented in Chapter 3 Project Description (Table 6.8)(APP-058) and as described in paragraph 63, it is assumed that that the ORCPs would be installed in two stages, firstly the foundation will be installed (as described in Table 6.11), followed by the lifting of the topside from a transport vessel/barge, onto the foundation. The foundation and topside may be transported on the same transport vessel/barge, or separately. The foundation may also be transported by the installation vessel (typically a jack up vessel (JUV)). Vessel requirements for the installation of the ORCPs are shown in Table 6.19 of 6.1.3 Chapter 3 Project Description (APP-058) (replicated below).

<table>
<tr><th>Question ID</th><th>Question addressed to</th><th>Question</th><th>Response</th></tr>
<tr><td></td><td></td><td></td><td>
<table>
<tr><th>Vessels</th><th>Number of Vessels</th><th>Indicative Maximum Number of Return Trips per Vessel Type</th></tr>
<tr><td colspan="3">OP Topside Installation (all OSSs, ORCPs and Accommodation Platform)</td></tr>
<tr><td>Installation vessel</td><td>2</td><td>24</td></tr>
<tr><td>Support vessel</td><td>12</td><td>96</td></tr>
<tr><td>Transport vessel</td><td>4</td><td>48</td></tr>
<tr><td colspan="3">OP Foundation Installation (all OSSs, ORCPs and Accommodation Platform)</td></tr>
<tr><td>Installation vessel</td><td>2</td><td>16</td></tr>
<tr><td>Support vessel</td><td>12</td><td>48</td></tr>
<tr><td>Transport vessel</td><td>4</td><td>32</td></tr>
</table>

The Applicant notes that there will be greater levels of vessel activity during the construction phase, however, the ORCPs would generally be smaller at the beginning of the ORCP construction phase, when partially built, than it would be at commencement of the operational phase when fully built. Therefore, on balance, the magnitude of change during construction is assessed as being no greater than during the operational phase, despite the presence of vessel activity.

Construction activities would also take place over a relatively short period of time compared with the operational phase. The Applicant acknowledges that there is likely to be a point shortly before operations when the completed ORCPs will be at their full size, when there will still be construction vessels coming to and from them, when activities are likely to be more concentrated than during the operational phase. However, once the ORCP topside is installed, construction traffic will be limited to support and transport vessels (e.g. for the transfer of personnel). This period of works will, however, occur over a short-term period of the overall construction programme for the offshore platforms (including all offshore substations and ORCPs), resulting in effects of a short duration. The impact is considered to be no greater than during operational phase as assessed in 6.1.17 Environmental Statement (ES) Chapter 17 Seascape, Landscape and Visual Impact Assessment (AS1-044).</td></tr>
<tr><td>Q1 SV 1.4</td><td>The Applicant</td><td>Seascape, Landscape and Visual Impact Assessment (SLVIA) methodology divergence from Guidelines for Landscape and Visual Impact Assessment 3 (GLVIA3)
Paragraphs 39 and 40 of Appendix 17.1 of the ES [APP-174] identify a divergence in the SLVIA methodology from that suggested in GLVIA3 in relation to the scales of magnitude of change.
This is justified on the basis that “These are not new diversions and follow practice established on other NSIPs…”
▪ Clarify why variation from GLVIA3 guidance is necessary specifically in relation to this project.</td><td>GLVIA3 provides guidance, but it is not prescriptive about the approach that should be taken by Landscape and Visual Impact Assessment (LVIA) practitioners. Divergencies from GLVIA3 are noted in Appendix 17.1 of the ES, which are not new diversions and follow practice established on other Nationally Significant Infrastructure Projects (NSIPs). The Applicant considers that the six word scales of magnitude of change – high, medium-high, medium, medium-low, low and negligible is appropriate, in line with good practice and defines levels by which the magnitude of change arising as a result of the Project can be most clearly described.</td></tr>
<tr><td>Q1 SV 1.5</td><td>The Applicant</td><td>Maximum design scenario for ORCPs – masts, radar and antennae
Table 17.8 of Chapter 17 of the ES [AS1-044] identifies the maximum design scenario assessed in the ES during construction, operation and maintenance and decommissioning. A maximum height of “up to 90m above LAT inclusive of</td><td>The Applicant is undertaking a technical engineering review of the parameters used for the ORCP maximum design scenario and will submit updated information to the Examination no later than at Deadline 4. This will include confirmation of the maximum height of masts and antennae.</td></tr>
</table>

Question ID	Question addressed to	Question	Response
		ancillary elements but excluding masts and antennae" is specified in the ES and replicated in Requirement 3 of the draft Development Consent Order (dDCO). ▪ Why have masts and antennae been excluded from the maximum design scenario? ▪ How tall could masts and antennae be in addition to the 90m assessed? ▪ How has the height of masts and antennae been assessed in relation to visual effects? ▪ Is the height of masts, radar and antennae controlled? If not, why not?	
Q1 SV 1.6	The Applicant	**Maximum design scenario for ORCPs – scale and siting** ▪ Clarify why the minimum distance of the ORCPs areas from the coastline is not greater than 12km. ▪ Has any consideration been given to reducing the scale of the maximum design scenario for the ORCPs from the 90m x 90m x 90m specified? If not, why not?	As set out in Chapter 3 Project Description (APP-058) and Chapter 4 Site Selection and Assessment of Alternatives (APP-059), the Applicant is developing the Project with HVAC technology only. Given the overall length of the export cable system from the generating station (array area) to the onshore substation, an offshore reactive power solution is required in order to enable power flow from the generating station to the onshore substation. The ORCPs were initially located 6km from landfall. Following stakeholder feedback during the pre-application process, specifically in relation to feedback from Natural England during the Evidence Plan Process as detailed in Chapter 6 Appendix 15 Evidence Plan Process (APP-149), the Applicant undertook a review of the location of the ORCPs and was able to move the location further offshore 12km from landfall, noting the Applicant had made a commitment not to locate the ORCPs in the Inner Dowsing Race Bank and North Ridge (IDRBNR) SAC to avoid impacts to the SAC. The Applicant is unable to move the location further offshore east beyond the IDRBNR SAC without compromising the ability of the project to deliver power to the onshore substation to achieve 1500MW export power. Shunt reactors are housed in the ORCPs, their purpose is to eliminate as far as possible the reactive power (non-useful power) in the export cables. Placing the ORCPs east of the Greater Wash Special Protection Area (SPA) and beyond the SAC is not a viable solution. Locating the ORCPs further offshore beyond the SAC will limit the shunt reactors ability to offset the reactive power in the cable due to the short distance between the OSSs and ORCPs meaning less capacitive reactive power is generated between the OSSs and the ORCPs, and therefore the shunt reactors within the ORCPs will not be able to fully offset the reactive power generated in the system. Excess reactive power (uncompensated) downstream of the ORCPs would reduce the capacity for power transmission due to the limitations of thermal capacity and cable rating, in turn reducing the Project's export power to an unacceptable level. With regards to the parameters for the ORCP, the Applicant is undertaking a technical engineering review of the parameters used for the ORCP maximum design scenario and will submit updated information to the Examination no later than Deadline 4.
Q1 SV 1.7	The Applicant	**Maximum design scenario for ORCPs – lighting**	The Applicant can confirm that with the exception of during emergency maintenance, the ORCPs would not be lit at night, other than for navigation purposes. Marine navigational

Question ID	Question addressed to	Question	Response
		For the operation and maintenance phase, Table 17.8 of Chapter 17 of the ES [AS1-044] states that *"the ORCPs would not have any personnel working on them at night and therefore no operational lighting is expected to be required"* beyond that associated with aviation and navigation. The subsequent assessment in Section 17.7 of the ES clarifies that such lighting may be required during emergency maintenance. ▪ Provide further details of the likely visual effects of the operational lighting when in use at night and the length of time that they may be experienced. ▪ Does the dDCO provide certainty that the operational lighting on the ORCPs could only be used during "*emergency maintenance*"? ▪ In the context of the above, please comment specifically on the policy requirements in NPS EN-1 (para. 5.10.21) to assess light pollution effects, including on dark skies and local amenity in relation to the project.	lights would be fitted above sea level on the foundations/platform level of the ORCPs and these are expected to be visible from the Lincolnshire coast, in conjunction with navigational lighting present on the operational windfarms that is currently visible at night. The Applicant can confirm that no aviation lighting on the ORCPs is necessary due to the height of the ORCPs (90m), which falls below 150m for structures requiring to be lit under the requirements of the Air Navigation Order 2016. The project design includes potential for a helideck on the ORCPs, therefore any lighting needed for this helideck will be accordance with CAP 437: Standards for offshore helicopter landing areas (CAA, 2016). It is expected that lighting on the helideck will only be required at night during periods of emergency maintenance. The Applicant can confirm that there is a possible requirement for operational lighting on the ORCPs during emergency maintenance that would be limited to walkway/stairway/task lighting that has low levels of lighting intensity when in use and will not be visible from the coast. The Applicant highlights the assessments of effects arising from navigation and aviation lighting within 6.1.17 ES Chapter 17 Seascape, Landscape and Visual Impact Assessment (AS1-044), including at paragraph 118 and 119 in respect to seascape receptors; paragraph 141 and 143 in respect of landscape receptors; and paragraph 159, 161 and 164 in respect of visual receptors, including representative viewpoints in Table 17.12; and as summarised in paragraph 172. The Applicant considers that it has addressed the policy requirements in NPS EN-1 (para. 5.10.21) to assess light pollution effects. The ORCPs will not be located in a dark skies area and will be a minimum of 12km offshore. The ORCPs are therefore not expected to have significant adverse effects on local amenity.
Q1 SV 1.8	The Applicant	**Embedded mitigation – lighting and marking** Table 17.9 of the ES [AS1-044] identifies lighting and marking in agreement with Trinity House, the Maritime and Coastguard Agency (MCA), and Civil Aviation Authority (CAA), and in compliance with International Association of Marine Aids to Navigation and Lighthouse Authorities as embedded mitigation for seascape and visual effects. ▪ Clarify what these measures would consist of and how they would mitigate seascape and visual effects, in particular.	In respect of aviation lighting, under Requirement 27(1) of the dDCO, the undertaker must exhibit such aviation lights, with shape, colour and character as required by Air Navigation Order 2016(a) and determined necessary for aviation safety. The Air Navigation Order 2016 requires the Wind Turbine Generators (WTGs) to be lit to assist their detection by aircraft with a medium intensity (2000 candela (cd)) red light mounted on the top of the fixed structure (WTG nacelle). With the permission of the CAA, only those on the periphery of the group need be fitted with a light in accordance with Article 223. Furthermore, where visibility conditions permit, the intensity of aviation navigation lights may be reduced to no less than 200 candela (cd), affording mitigation at this reduced intensity during periods of good visibility. The angle of the plane of the beam of peak intensity emitted by the light must also be elevated above the horizontal plane; and not more than 10% of the minimum peak intensity is to be visible at 1.5° or more below the horizontal plane. This provides embedded mitigation as low-lying coasts and seas would experience lighting at reduced intensity. Marine navigational lights will also be fitted at the platform level on Significant Peripheral Structures (SPS), however these are not expected to be visible from the coast due to their long distance from the coast and low-lying position at platform level on the WTGs, which means they will be effectively 'screened' behind the intervening horizon.
Q1 SV 1.9	The Applicant NE Local Authorities	**Offshore design considerations** A Design Approach Document [APP-292] and Design Principles Statement [APP-293] are provided by the Applicant to inform the project at the detailed	Good design has been at the forefront of decision making throughout the evolution of the Project for both offshore and onshore aspects, strongly influencing site selection and design of the Project to date and this will continue at the detailed design stage. The Design

Question ID	Question addressed to	Question	Response
		design stage. However, the documents focus on design matters at the proposed onshore substation. ▪ The Applicant is invited to explain why offshore elements of the project, including the ORCPs, are not considered in the Design Approach Document and Design Principles Statement. ▪ Can the Applicant, Natural England and the Local Authorities provide comments on whether there would be any merit in the consideration of offshore infrastructure, particularly the ORCPs, in these documents to facilitate good design?	Approach Document (APP-292) and the Design Principles Statement (APP-293) were developed as part of the Project's participation in the Planning Inspectorate's Early Adopters Programme (EAP) with a primary focus on onshore elements of the Project's infrastructure, including consideration of feedback from the Planning Inspectorate issued in December 2023 (available on the Planning Inspectorate's Outer Dowsing Offshore Wind project webpage reference EN010130 – Advice-00011-1), The Project welcomes the opportunity to update the Design Approach Document (APP-292) and the Design Principles Statement (APP-293) to include relevant offshore infrastructure such as the Offshore Reactive Compensation Platforms and intends to submit revised versions of each document at Deadline 4.
Q1 SV 1.10	NE Local Authorities	**Seascape viewpoints** Table 17.2 of Chapter 17 of the ES [AS1-044] states that NE suggested Gibraltar Point as a suggested additional viewpoint. The Applicant responds by stating that this was considered but *"discounted due to the distance to the elements of the Project and the range of other viewpoints included in the SLVIA".* ▪ Is Natural England satisfied with the Applicant's response? If not, why not? ▪ Do Natural England and the Local Authorities have any comments to make on the selection of viewpoints as identified in Table 17.6 of the ES?	
Q1 SV 1.11	The Applicant	**Sheringham Hall Registered Park and Garden** Sheringham Hall Registered Park and Garden is listed as a landscape designation of relevance in Table 17.5 of the ES [AS1-044]. However, it is not identified on Figure 17.11 [AS1-056]. Please provide an update to Figure 17.11 that identifies the site.	Sheringham Hall Registered Park and Garden is shown in Figure 17.11 (AS1-044) however, the Applicant notes that it is somewhat obscured by the viewpoint location symbol for Viewpoint 10 on that figure. The Applicant has provided an updated version of Figure 17.11 in Appendix 1.21 Q1 SV 1.11 with an inset map enlargement showing Sheringham Hall Registered Park and Garden at greater detail.
Q1 SV 1.12	The Applicant	**Visibility Range** Figure 17.13 of the ES [APP-106] illustrates the visibility range of the array area. Table 17.7 [AS1- 044] also provides information based upon Met Office data to aid understanding about the amount of time when visibility is experienced at the distances required to see Wind Turbine Generators (WTGs) within the array area. ▪ Please provide corresponding information for the ORCPs and confirm if it has any implications for the conclusions in the ES.	The information included in Table 17.7 of ES Chapter 17 (AS1-044) is appliable to the ORCPs as well as the WTGs. Figure 17.13 is intended to be a graphical representation of Table 17.7, presented with the visibility range extending from the Project array area. Based on the Met Office data presented in Table 17.7 (AS1- 044), the yearly average visibility frequency can be totalled to understand the likely visibility frequency of the ORCPs. The closest section of the East Lincolnshire coastline is approximately 12km from the array area, where good visibility over 12km would be required to see the ORCPs. The Met Office data shows that periods of good, very good and excellent visibility over 12km occur for approximately 76% of the time (over the ten-year period of the met office data). The ORCPs are unlikely to be visible during the remaining 24% of the time during poor and moderate visibility conditions. The assessment judgements in 6.1.17 ES Chapter 17 Seascape, Landscape and Visual Impact Assessment (AS1-044) concentrate on a worst case of excellent visibility and the consideration of Met Office data would not affect the findings reached in terms of the magnitude of change and significance of impacts, however the Applicant submits further that the ORCPs are unlikely to be visible during poor and moderate visibility conditions, which equate to approximately a quarter of the year based on the available Met Office visibility data.

Question ID	Question addressed to	Question	Response
Q1 SV 1.13	The Applicant	**Consideration of Landscape Character Areas (LCA) J1 and I1** Paragraph 131 of Chapter 17 of the ES [AS1-044] states that the landscape character analysis concentrates on LCA K1 and G2 due to *"the intervening distance between the coastline and the array area, and to a lesser degree the ORCPs, and the limited intervisibility of the North Sea inland from the coastal edge"* However, Figure 17.10 also identifies extensive areas of intervisibility, with LCA J1 and I1, albeit of fewer blade tips. ▪ Can the Applicant provide further justification for concentrating on LCA K1 and G2 and provide updated commentary that also considers LCA J1 and I1, if deemed appropriate.	The assessment focussed on the likelihood of significant effects occurring as a result of the offshore elements of the Project. The potential for significant effects was identified in relation to one viewpoint, where open, panoramic views over the North Sea could be obtained. The Applicant highlights the very long distance of LCA J1 and LCA I1, which are located some 55km and 58km respectively from the Project array area. Significant effects on perceived landscape character would be unprecedented at such range and the assessment concentrates on the effects of the Project on coastal landscapes whose characteristics are influenced by the seascape and where there may be unobstructed views out to sea that may be affected by the Project array areas. It was evident during the fieldwork that natural and man-made elements along the coastline would limit views to the sea and the relationship between landscape character and the sea. This is also demonstrated by Surface Feature Screening Zone of Theoretical Visibility (ZTV) (Figure 17.6) (AS1-056), which shows how much surface features reduce theoretical visibility of the Project array area from inland areas away from the coastal edge, and also the ZTV that shows theoretical hub visibility (Figure 17.7). These ZTVs indicate that theoretical visibility will become increasingly limited and fragmented from inland areas away from the coastal edge. Blade tips of the WTGs may be theoretically visible over a wide area based on bare earth terrain data, however, as recognised in the limitations of the ZTV described in APP-174, the Blade Tip ZTV does not indicate the decrease in visibility that occurs with increased distance from the Project array area, so an area shown on the ZTV as having visibility may gain views of the smallest extremity of blade tips, which is generally the case for the Project array area due its distance offshore, as illustrated in the wireline visualisations in Figures 17.25 – 17.34 (APP-107). Furthermore, significant adverse effects on landscape character are not predicted where there are clear, unobstructed views out to sea from LCAs along the coastal edge, therefore it is not expected that greater effects would occur inland, where the distance is greater, visibility is expected to be reduced and LCAs do not tend to have key characteristics defined by the sea/coast.
Q1 SV 1.14	The Applicant	**Susceptibility of LCA K1** Paragraph 136 of Chapter 17 of the ES [AS1-044] considers the susceptibility of LCA K1 to be "medium". The susceptibility in relation to effects from WTGs is said to be moderated due to the distance and presence of other wind farms and limited visibility due to weather conditions. The paragraph goes on to state that medium susceptibility also takes account of the ORCPs although the description may imply that a greater than "medium" level of susceptibility should be applied. The ORCPs are described as "conspicuous structures in the baseline context, comprising static platforms with a larger mass" The paragraph also states that the ORCPs would be positioned approximately 7.4km from the coast which is closer than the 12km distance quoted in the maximum design scenario in Table 17.8. ▪ Provide further justification for the conclusion of medium susceptibility for LCA K1 in the context of the ORCP commentary. ▪ Confirm if the minimum distance of the ORCPs is 12km rather than 7.4km and outline any implications for the conclusions made.	The presence of the baseline wind farm development is one of the key factors influencing the susceptibility of LCA K1. The presence of such structures would reduce the change resulting from new similar development. The reference to the ORCPs reflects that these are more conspicuous relative to the WTGs. Another factor influencing the susceptibility of LCA K1 is the recurring presence of development along the coastline, particularly the settlements and tourism related developments. These are most apparent in the southern part of the LCA, closer to the position of the ORCPs. The Applicant confirms that the minimum distance between the coastline and the ORCPs would be 12km and that the reference to 7.4km is a drafting error in the document which should correctly read 'These would be positioned approximately 12km from the closest part of the Lincolnshire coastline (and LCAK1)'.

1.22 Shipping and Navigation

Table 1.22: Shipping and Navigation

<table>
<tr><th>Question ID</th><th>Question addressed to</th><th>Question</th><th>Response</th></tr>
<tr><td colspan="4">Shipping and Navigation</td></tr>
<tr><td>Q1 SN 1.1</td><td>The Applicant</td><td>Offshore In-Principle Monitoring Plan - Shipping and Navigation
Table 3.4 of the Offshore In-Principle Monitoring Plan [APP-276] outlines the Applicant’s monitoring proposals concerning potential shipping and navigation effects. Provide a tabular summary identifying the methods for securing each monitoring proposals? Additionally, ensure updates are provided to the ExA whenever the Applicant updates the monitoring proposals in the Offshore In-Principle Monitoring Plan during the Examination.

Additionally, if construction or post-construction monitoring reveals that the impacts on vessel routeing and safety are greater than those predicted in the Navigational Risk Assessment (NRA), what mechanisms are in place for adaptive management to address these greater-than-predicted effects?</td><td>A tabulated summary of how the items detailed in Table 3.4 of the Offshore In-Principle Monitoring Plan (APP-276) have been secured via the Development Consent Order (REP1-007) is provided below.

<table><tr><th>Table 3.4 item (APP-276)</th><th>Condition</th></tr><tr><td>Construction Traffic Monitoring</td><td>Secured via Schedules 10 and 11, condition 18(5)</td></tr><tr><td>Post Construction Traffic Monitoring</td><td>Secured via Schedules 10 and 11, condition 19(2)(e)</td></tr><tr><td>Aids to Navigation Management Plan</td><td>Secured via Schedules 10 and 11, condition 13(i).</td></tr><tr><td>Cable burial and protection monitoring</td><td>Secured via Schedules 10 and 11, condition 13(d)(ii)(cc).</td></tr><tr><td>Reduction of under keel clearance</td><td>Secured under Schedules 10 and 11, condition 13(d)(ii)(bb).</td></tr></table>
Under conditions 18(5) and 19(2)(e) of Schedules 10 and 11, the monitoring reports must be submitted to the Marine Management Organisation (MMO) in consultation with the Maritime and Coastguard Agency (MCA) and Trinity House. This will ensure MCA requirements under Marine Guidance Note (MGN) 654 are met, which state that “The MCA would expect the opportunity to discuss any changes identified as part of this monitoring, since the submission of the NRA”. The Navigational Risk assessment (NRA) (APP-171) has assessed a worst case in terms of project parameters and vessel deviations and therefore it is not anticipated that impacts on vessel routeing and safety will be greater than those predicted.</td></tr>
<tr><td>Q1 SN 1.2</td><td>The Applicant
Breesea Limited, Soundmark Wind Limited,
Sonningmay Limited,
Optimus Wind Limited
Hornsea 1 Limited
IOG North Sea Limited
Lincs Wind Farm Limited
Orsted Hornsea Project Four Limited
Orsted Hornsea Project Three (UK) Limited</td><td>Cumulative Routeing and Navigational Risks
Numerous operators of other offshore infrastructure have raised concerns in their Relevant Representations about the cumulative routeing, vessel access, and navigational risks, emphasizing the need for coordination.
How does the Applicant’s response to Relevant Representations [PD1-071] address these concerns? Explain your position, highlight any unaddressed concerns, and provide your recommendations to address them.

Provide an update on the progress of any negotiations aimed at finalizing and implementing the required mitigation strategies?</td><td>Breesea Limited, Soundmark Wind Limited, Sonningmay Limited, Optimus Wind Limited (RR-011) queried impact from potential cumulative displacement. Cumulative routeing has also been assessed within 6.3.15.1 Chapter 15 Appendix 1 Navigational Risk Assessment (APP-171). This assessment showed no anticipated impact to the routes used by vessels to / from the Hornsea projects. The NRA also showed that the searoom available north of the Project array area is such that additional allision risk to Hornsea Two assets is unlikely. The same applies to Hornsea 1 Limited (RR-028).

Lincs Wind Farm Limited (RR-037) requested input into and discussion of navigational risks. This opportunity will be provided via the final Cable Specification and Installation Plan (CSIP) process, with existing Lincs Offshore Wind Farm (OWF) assets considered and consulted as required including in relation to the operation of installation vessels to ensure they maintain safe distances from existing assets. In relation to the Offshore Reactive Compensation Platform (ORCP), the final location will be required to be</td></tr>
</table>

Question ID	Question addressed to	Question	Response
	Race Bank Wind Farm Limited		approved by the MMO in consultation with the MCA and Trinity House and this will include consideration of baseline traffic patterns (noting the current routeing to the Lincs OWF passes inshore and in proximity to the ORCP area). This will ensure risks to passing traffic including the vessels associated with Lincs OWF are as low as reasonably possible (ALARP). The array area is not in proximity to Lincs and therefore no associated impacts are anticipated. Race Bank Wind Farm Limited (Race Bank Wind Farm Limited) (RR-054) requested input into and discussion of navigational risks. This opportunity will be provided via the final CSIP process, with existing Race Bank OWF assets considered and consulted as required including the operation of installation vessels to ensure they maintain safe distances from existing assets. Race Bank will not be in proximity to the ORCP or array area and therefore no associated impacts are anticipated. Vessel routeing to Hornsea Three and Four has not yet been established, however as detailed above access would not be prevented to Hornsea One and Two. As such, access to Hornsea Three and Four would also not be prevented assuming similar mobilisation ports. Given the distance between the array area and Hornsea Four is in excess of 20nm, and in excess of 30nm to Hornsea Three, there will be no impact on operations within the respective arrays from ODOW. The Applicant can confirm that on 15th November 2024 the North Sea Transition Authority (NSTA) confirmed to IOG North Sea Limited that P2348 production licence will cease on December 31, 2024. Furthermore, IOG North Sea Limited have confirmed to the Applicant that if it would be helpful to the Examining Authority they would withdraw their Interested Party status should this be helpful to the Examination process.
Q1 SN 1.3	Maritime and Coastguard Agency (MCA) Trinity House UK Chamber of Shipping (CoS) and any other relevant IP	**NRA methodology** Do you find the methodology used to assess the Proposed Development's shipping and navigational risks in the submitted NRA (Chapter 3 in [APP-171]) satisfactory? If not, what specific concerns do you have, and how might these be addressed?	The Applicant notes this question is addressed MCA, Trinity House UK, Chamber of Shipping (CoS), and any other relevant IP. To be helpful, the Applicant would add that MCA methodology has been followed for all shipping and navigation assessment. This has been demonstrated via the completion of an MGN 654 checklist, which has been appended to the NRA (APP-171). The MCA confirmed in their Written Representation at Deadline 1 (REP1-044) that the Applicant has undertaken "a detailed Navigation Risk Assessment (NRA) in accordance with MCA guidance MGN (Marine Guidance Note) 654 and NRA risk assessment methodology". Trinity House and the CoS both also confirmed in their respective Statements of Common Ground (SoCG) (REP1-037 and REP1-033) that they were content with the assessment methodology applied (all items in the "Assessment and Methodology" section are marked as "Agreed").
Q1 SN 1.4	MCA Trinity House CoS and any other relevant IP	**NRA data sources** Are you satisfied that the NRA has utilized the appropriate data sources (Chapter 5 in [APP- 171])? If not, what additional data do you believe should be considered to accurately assess the navigational and shipping risks associated with the Proposed Development?	The Applicant notes this question is addressed MCA, Trinity House UK, CoS, and any other relevant IP. To be helpful, the Applicant would add that all items related to data collection and suitability of data are marked as "Agreed" in the SoCGs between the Applicant and the MCA, Trinity House, and CoS (REP1-030, REP1-037 and REP1-033). The MCA also confirmed in their Written Representation at Deadline 1 (REP1-044) that they were "satisfied that appropriate traffic data has been collected in accordance with MGN 654".

Question ID	Question addressed to	Question	Response
Q1 SN 1.5	The Applicant MCA Trinity House	**Statement of Common Ground (SoCG)** Draft SoCG with MCA [REP1-030]. To the Applicant: Please provide an update on progress on discussions for Ref MCA7 to Ref MCA13 as mentioned in Table 4? To the MCA and Trinity House: Do you concur that all areas of agreement or areas under discussions have been covered in their respective draft SoCGs with the Applicant [REP1-030] and [REP1-037]?	The Applicant met with the MCA on 22nd November 2024 to discuss the Draft SoCG [REP1-030] and was able to agree several of the points listed as "In discussion". The applicant is continuing to discuss wording for the conditions in the deemed marine licences, listed in the Draft SoCG as items MCA14 – MCA19 and will incorporate relevant updates in the draft DCO at Deadline 3.
Q1 SN 1.6	The Applicant CoS	**Offshore Cables after decommissioning** In draft SoCG between the Applicant and the CoS [REP1-033] Table 4, CoS13 states that the Chamber strongly advocates for the full removal of all infrastructure and cabling. Paragraph 197 under 7.12.3 of Chapter 7 [APP-062] indicates cables will be retained in situ. To ensure clarity: Can the Applicant confirm if offshore cables will remain in situ after decommissioning? If necessary, update the draft SoCG between the Applicant and the CoS accordingly. To the CoS: The ExA notes that the CoS advocates for the complete removal of all infrastructure and cabling. Please expand on this position with further information and reasoning, considering Chapter 7 of the Marine Physical Processes [APP-062], which indicates that cables will be retained in situ.	The Applicant cannot confirm at this stage its decommissioning plan. The Energy Act (2004) requires that a decommissioning programme must be submitted to and approved by the relevant Secretary of State, a draft of which will be submitted prior to the construction of the Proposed Development. The decommissioning programme will be updated during the Proposed Development's lifespan. To take account of changing good practice and new technologies, the approach and methodologies employed at decommissioning will be compliant with the legislation and policy requirements at the time of decommissioning. In accordance with the requirement 7 of the draft Development Consent Order (dDCO) (3.1), a written decommissioning programme will be provided prior to commencement of Work nos. 1-7. The details of the proposed decommissioning process will be included within the Decommissioning Programme which will be developed and updated throughout the lifetime of the Proposed Development to account for changing good practice. It is noted that this will be subject to good practice at the time of decommissioning and surveys conducted to assess the quality of the communities established and a decision on their removal made in conjunction with the statutory authorities. Table 15.6 of Chapter 15 shipping and Navigation (APP-070) sets out the Maximum Design Scenario (MDS) for effects during the decommissioning phase in Section 15.6. Given the inherent uncertainties in assessing effects that would not occur for a significant time period, the Applicant has taken a precautionary approach to the assessment. For some impacts, leaving infrastructure in situ will give rise to greater effects than removal and vice versa. The Applicant has assessed the relevant worst case for each effect.
Q1 SN 1.7	The Applicant	**Layout Design** The Written Representation from the MCA [REP1-044], states that *Mitigations in table 15.7 of Chapter 15 and Table 18.1 of the NRA, confirms the intention to continue discussions with the MCA and Trinity House. Further advice will be provided once the layout discussions have started.* Provide an update on progress of layout design discussions with the MCA and Trinity House with expected timeline to finalise those?	The final layout design and approval process typically takes place post consent, and it is standard to assess worst case layout options at Environmental Impact Assessment (EIA) stage. This approach has been applied within the NRA (APP-171). The Applicant is aware of MCA layout requirements and these principles will be applied in the post consent layout discussions to ensure the layout design minimises risk to shipping and navigation users and Search and Rescue operations. This includes application of the layout design principles set out within MGN 654 (MCA, 2021).

1.23 Socio-economic Effects

Table 1.23: Socio-economic Effects

Question ID	Question addressed to	Question	Response
Socio-economic Effects			
Q1 SE 1.1	LCC	Please identify the main locations of concern in relation to tourism impacts and evidence how they consider that construction activities could impact upon these locations?	
Q1 SE 1.2	The Applicant	**Securing socio-economic benefits** Environmental Statement (ES) Chapter 29 [APP-084 Paragraph 107] lists a number of measures that the project will consider. What commitment does the Applicant have to the delivery of these measures? How will these measures be secured?	As secured by Requirement 30, no stage of the onshore transmission works may commence until a skills, supply chain and employment plan in relation to that stage has been submitted to and approved by the relevant planning authority following consultation with Lincolnshire County Council (LCC). Any plan submitted in accordance with this requirement must identify opportunities for individuals and businesses to access employment and supply chain opportunities associated with that stage of the onshore transmission works and the means for publicising such opportunities. The skills, supply chain and employment plan must be implemented as approved. As stated in Environmental Statement (ES) Chapter 29 (APP-084), when the Applicant produces the skills, supply chain and employment plan, it will consider all listed mitigation in paragraph 107. The Applicant is committed to maximising local economic benefit and the list given provides an indicative set of potential measures which will be kept under review, discussed with the relevant planning authority and Lincolnshire County Council and the most appropriate and beneficial measures will be carried forward.
Q1 SE 1.3	The Applicant	**Employment and skills plan and Procurement Strategy** Table 29.1 [APP-084] notes that the Applicant will develop a procurement strategy that will consider the role of local suppliers and contribution to skills development. Section 29.6 embedded mitigation provides details on proactively engaging with local economic development stakeholders Requirement 30 details a 'skills, supply chain and employment plan' which the Applicant states must identify opportunities for individuals and businesses to access employment and supply chain opportunities associated with that stage of the onshore transmission works and the means for publicising such opportunities. Is the skills, supply chain and employment plan in Requirement 30 the same as the procurement strategy detailed in Table 29.1? If the procurement strategy is to be a separate document, provide detail of how this will be secured. How do these documents relate to the list set out in Paragraph 107? [APP-084]	The Applicant confirms that the procurement strategy referenced within ES Chapter 29 (APP-084) is a document developed outside of the ES, involving commercially sensitive information and therefore not secured in the DCO. This will consider the role of local suppliers and contribution to skills development. All the activities within the paragraph 107 will be considered to form part of the skills, supply chain and employment plan, that will be developed post consent. This plan will be secured within the DCO, therefore securing suitable measures.

Question ID	Question addressed to	Question	Response
Q1 SE 1.4	The Applicant	**Workforce assumptions and the impact upon the availability of temporary accommodation** What is the justification for the assumption in the ES [APP-084 Paragraph 217] that 25% of the workforce that would be employed during the peak activity (equating to a peak population increase of 170 people) would be new to the area? Can this be considered a worst-case scenario? What impact would this figure have on the availability of temporary accommodation in the area?	The 25% assumption considers that the Local Economic Area (LEA) has a large construction workforce that will be capable of undertaking the civil engineering works required during the construction phase. A lot of this work will also be linked with the portside activities which will likely be in ports that will see a pipeline of ongoing work that will support a settled, rather than transient workforce. However, some of this workforce may be more specialised, or there may be particular constraints around the labour force at the time of construction. Taking this into account, the 25% assumption is considered a worst case scenario and is based on construction industry surveys in Yorkshire and the Humber, which found that 25% of the construction workforce active in the region were residents of a different region at the start of the construction period (Source: Construction Industry Training Board, 2023, Workforce Mobility and Skills in the UK Construction Sector 2022 Yorkshire and the Humber Report - May 2023). The temporary worker accommodation demand is not anticipated to be significant in the LEA due to the relative population change.
Q1 SE 1.5	The Applicant	**Servicing of Wind Farm** In relation to potential economic benefits highlighted in [AS-022] and [AS-023] can the Applicant confirm where the wind farm would be serviced from? In particular, if this would be from the Port of Grimsby?	The Applicant is not able to confirm the location of the operations and maintenance base which will be determined once the technical specifications, detailed design and procurement activities have been substantially progressed in order to better understand the requirements for such a facility.

1.24 Transportation and Traffic

Table 1.24: Transportation and Traffic

Question ID	Question addressed to	Question	Response
Transportation and Traffic			
Q1 TT 1.1	Lincolnshire County Council (LCC)	**Transport Assessment** The Local Impact Report (LIR) submitted by LCC [REP1-053,Paragraphs 10.11 to 10.16], suggests that additional roads with reasonable levels of traffic, such as Ingoldmells Road, Sloothby High Lane, South Ings Road, and Marsh Lane, should also be crossed using trenchless techniques. LCC highlights the absence of flow data in Figures 27.1.7, 27.1.8, and 27.1.9 of [APP-118], the need for drawing corrections in AC-15, Sheet 5 of the Construction Access General Arrangements [APP-221], and the requirement for a Section 278 Minor Works permit for the proposed passing places. LCC expects that the necessary technical approvals should be obtained from LCC for works in the highway. With reference to paragraphs 10.11 to 10.16 of the LIR of LCC [REP1-053] and LCC's Relevant Representation (RR) [RR-004], how does the Applicant's response to RRs [PD1-071, RR-004.004 to RR-004.009] address the concerns raised? If the concerns are not resolved, can you explain your position for each concern and provide your recommendations to address each unresolved concern?	
Q1 TT 1.2	The Applicant LCC	**Conflict between non-motorised users and construction traffic**	Section 4.1.4 of the Outline Construction Traffic Management Plan (CTMP) (APP-289) states specific locations for safety measures for walking, cycling and horse-riders would

Question ID	Question addressed to	Question	Response
		LCC has highlighted that 'the use of rural roads, which have no dedicated provisions for pedestrians, cyclists, or equestrians, may result in the increased potential for conflict between these user groups and construction traffic' [REP1-053 paragraph 10.9]. LCC is requested to further explain the specific mitigation required to restrict vehicular activity on these roads and how this would form part of phase specific construction management plans, secured through the DCO? The Applicant may respond.	be considered, which would form part of phase specific CTMPs. This could include warning signage or information on alternative routes. The CTMP is secured through Requirement 21 of the draft DCO (PD1-024) and the outline version will be updated and submitted for approval by the relevant highway authority, in consultation with the relevant planning authority, in advance of construction. Section 4.1.2 of the Outline (CTMP) (APP-289) sets out how drivers of all Project vehicles would be encouraged to drive in a safe and defensive manner at all times. Additional measures to promote awareness specifically related to non-motorised users of the highway, could be included in phase specific CTMPs. Due to the nature of many of the local construction vehicle access routes being single track or narrow rural roads, heavy goods vehicles (HGVs) associated with the construction of the Project would be travelling at very low speeds, which would result in any risk of conflict with a non-motorised user on or adjacent to the carriageway would be minimised.
Q1 TT 1.3	LCC Fosdyke Playing Field	**Traffic problems near Fosdyke Playing Field** With reference to Fosdyke Playing Field's Relevant Representation [RR-022], which raises concerns about roads and traffic problems during construction and the Applicant's response to Relevant Representation [PD1-071] Are you content with the Applicant's response in relation to onshore traffic during construction? If not, provide your justification with evidence to support	
Q1 TT 1.4	LCC Nicholas Alexander Sermon	**Construction Traffic Effects** In [RR-093], Nicholas Alexander Sermon has raised concerns about a construction compound within 100 meters of the property and the effects of construction traffic on the property. In the Applicant's response to Relevant Representations RR-093.001 of [PD1-071], the Applicant states the basis for selecting Construction Access Point 40 and the maximum number of construction Heavy Goods Vehicles (HGVs) to Construction Access Points 40 and 41 [AS1-012]. Do you find the Applicant's conclusions in RR-093.001 [PD1-071] satisfactory? If not, please provide your reasoning.	
Q1 TT 1.5	LCC Barry Cooper	**Access to Property** The RR submitted by Barry Cooper [RR-080] raises concerns over the potential effects on access to property due to the proposed routes of HGVs during construction period. In the Applicant's response to Relevant Representations [PD1-071], the Applicant states a scheme of passing places has been proposed on the local construction vehicle access route between the A52 and the onshore cable corridor on Low Road / Yawling Gate Road / Howgarth Lane to mitigate the impact of construction traffic and allow two HGVs to pass should they meet along the route, as shown in Chapter 27 Appendix 1 Transport Assessment Annex N Passing Place Proposals [document 6.3.27.1, APP-229]." The Applicant's response also emphasizes the Outline Construction Traffic Management Plan (CTMP) [APP-289]. Considering the Applicant's response to Relevant Representations [PD1-071], are the Applicant's conclusions in relation to the access to property mentioned in [RR-080] satisfactory?	

Question ID	Question addressed to	Question	Response
		If not, explain your position with evidence to support your view.	
Q1 TT 1.6	LCC	**Cumulative Transport Assessment during construction** Paragraph 10.10 of the LIR [REP1-053] and the Relevant Representation of LCC [RR-004] raised concerns about the cumulative traffic impact on the existing A16 and A158 routes due to two other potential NSIPs (National Grid schemes and Ossian Off-Shore Wind and Cable route) combining with the Proposed Development, if they occur simultaneously. The ExA has made a Procedural Decision to request the Applicant to provide a 'Report on the inter-relationship with other infrastructure projects' as mentioned in the ExA's Rule 8 letter [PD-011, Annex B Paragraph 6], recognizing the importance of considering cumulative and in-combination effects with other infrastructure projects. How does RR-004.003 of the Applicant's response to RRs [PD1-071] address the concerns raised? If the concerns are not resolved, provide your recommendations to address them, considering that the Applicant will submit the initial version of a 'Report on the inter-relationship with other infrastructure projects' by D2 [PD-011, Annex B Paragraph 6].	
Q1 TT 1.7	The Applicant LCC	**Public Rights of Way (PRoW)** In the LIR of LCC [REP1-053], it is noted that the landfall point and surrounding areas impacted by the cable route may disrupt lawful users' access to the coast. The LIR also emphasizes the importance of the local PRoW network for accessing the County's Coastal Country Park. Provide signposting which sets out where the Applicant has addressed these concerns. **To LCC:** Please share your concerns regarding this matter, considering the Outline Public Access Management Plan [PD1-062] and provide recommendations on how they should be addressed.	The Applicant appreciates that the PROW network may be used by walkers to access to the coast and country park and that this has been raised by Lincolnshire County Council in its Local Impact Report, section 11.5, to which the Applicant has responded, in The Applicant's Response to Host Authorities Local Impact Reports, which is duplicated below. *The PRoW in the vicinity of landfall that would be crossed by the Onshore Export Cable Corridor (Hogs/57/1, Ande/19/1, Ande/19/2, Ande/19/3 and Chap/21/4) would remain open with a managed crossing, as set out in Procedural Deadline - 8.17 Outline Public Access Management Plan [PD1-062]. Therefore, the interruption to lawful user's ability to access the coast using the PROW network would be minimised.* *The assessment of potential effects to users of PRoW in Table 23.37 of 6.1.27 Chapter 27 Onshore Traffic and Transport [AS1-051] concluded the level of effect would be minor adverse for the PRoW in the vicinity of landfall and therefore not significant in terms of the EIA Regulations*

1.25 Water Environment

Table 1.25: Water Environment

Question ID	Question addressed to	Question	Response
Water Environment			
Q1 WE 1.1	The Applicant	**Post decommissioning Onshore Substation** Paragraph 24.7.2.2 of Chapter 24 of the Environmental Statement (ES) [APP-079] discusses the decommissioning of the Onshore Substation (OnSS), including the removal of certain infrastructure and the restoration of the area.	Paragraph 27.7.2.2 of Chapter 24 (APP-079) discusses potential actions for decommissioning only. It is not possible to provide details of decommissioning at this stage. The hydrology and flood risk assessment in ES Chapter 24 assumed that the above ground development would be removed at decommissioning, because the demolition and

Question ID	Question addressed to	Question	Response
		▪ Specify which infrastructure elements are expected to remain post-decommissioning? Additionally, please detail the measures that will be implemented to mitigate any potential impacts of the remaining infrastructure on flood risk and water quality.	decommissioning work would represent the 'maximum design scenario' in relation to the potential for impacts upon water quality. The Applicant has carried out hydraulic modelling of the effects of the development using 75 years plus climate change, in order that any impacts to flood risk to third parties beyond 35 years has been assessed. This update to the modelling considers the scenario where the raised site remains in situ beyond 35 years. This update to the modelling is expected to be submitted to the ExA at Deadline 4. The modelling has demonstrated that at 75 years, the development has a lesser impact upon flood hazard rating, compared with the assessment for 35 years carried in the FRA (AS1-068, 070,072,074,076,078,080,082,084). This is because as flood depths increase with the additional years of climate change allowance, the effect of the development gets proportionately smaller. An onshore decommissioning plan will be produced at the appropriate time, in accordance with draft DCO Requirement 24 (document 3.1). The plan will be prepared based on guidance and good practice at that time and submitted for approval by the LPA in consultation with the highway authority, statutory nature body and the environment agency. The plan must be submitted for approval within six months of cessation of commercial operations. Any mitigation measures regarding flood risk and water quality would be dependent upon, and appropriate to, the content of the plan.
Q1 WE 1.2	The Applicant	**Groundwater Risk Assessment** Referring to Paragraph 6.2 of the Written Representation of the Environment Agency (EA) [REP1-048] and EA18 of the draft Statement of Common Ground (SoCG) between the Applicant and the EA [REP1-026], provide a response regarding the method to secure the Groundwater Risk Assessment?	Following engagement with the EA, the Applicant can confirm that the Groundwater Risk Assessment (GWRA) (APP-210) will be updated in the pre-construction phase and used to inform the Water Quality Monitoring and Management Plan (WQM&MP). The WQM&MP is one of the plans specified the outline Code of Construction Practice (oCOCP) (document 8.1, version 3) and is required to form part of the final CoCP submitted under Requirement 18 (Code of construction practice) of the draft DCO (document 3.1, version 5). The oCOCP has been updated to include the commitment to update the GWRA and use this to inform the content of the WQM&MP. The updated oCOCP, including reference to the updated GWRA in the section describing the WQM&MP, has been submitted at Deadline 2.
Q1 WE 1.3	The Applicant Witham Fourth District Internal Drainage Board Lindsey Marsh Drainage Board Black Sluice Internal Drainage Board South Holland Internal Drainage Board Welland and Deepings Internal Drainage Board	**Side Agreement with the Internal Drainage Boards (IDBs)** The Applicant's planning obligations and side agreements tracker [REP1-023] indicates that side agreements have been drafted with the following listed Internal Drainage Boards and are currently under discussion. ▪ Witham Fourth District Internal Drainage Board ▪ Lindsey Marsh Drainage Board ▪ Black Sluice Internal Drainage Board ▪ South Holland Internal Drainage Board ▪ Welland and Deepings Internal Drainage Board	The Applicant can confirm that the side agreement referred to is a 'Planning Performance Agreement' the primary purpose of which is to remunerate the IDBs for their role in the pre-construction approval of matters specified in the Protective Provisions for the Protection of the Drainage Authorities in the draft DCO Schedule 18 Part 5 (3.1). It also includes a framework for a streamlined system for managing the very large number of activities that need to be approved. The IDBs' normal consent process includes licensing fees, but these are disapplied by the draft DCO (Part 2, Article 7). The PPA replaces the funding mechanism. The PPA includes schedules of rates for different roles for each IDB and a Non-Disclosure Agreement. The Applicant does not believe that it is necessary to submit the PPA to the ExA as it is a commercial agreement between the Applicant and the IDBs.

Question ID	Question addressed to	Question	Response
		Please provide an estimated timeline for when these draft side agreements will be available for consideration by the ExA?	The PPA and the Protective Provisions are currently at review by the IDBs' solicitor. The Applicant is optimistic that agreement on the PPA and Protective Provisions will be reached in short order and that the approved version of the Protective Provisions would be submitted to the ExA.
Q1 WE 1.4	Witham Fourth District Internal Drainage Board Lindsey Marsh Drainage Board Black Sluice Internal Drainage Board South Holland Internal Drainage Board Welland and Deepings Internal Drainage Board	**Change Request about pipeline crossings** With reference to the Applicant's Additional Submission [AS-025] and the ExA's advice related to these possible changes in its Rule 8 letter [PD-011], the Applicant advised the ExA of further changes that it had not yet submitted to the ExA. These were described by the Applicant as follows: ▪ Changes to documents to account for additional utilities crossings; and ▪ Changes to documents to account for additional drain crossings. The ExA has made a Procedural Decision [PD-012] that these changes do not need to be submitted as part of a formal change request. Please respond with any concerns you may have regarding the changes and provide recommendations to address them.	The Applicant notes that this question is addressed to the 5 IDBs but to be helpful, it would make the following comment. The change came about through consultation with the Welland and Deepings IDB and South Holland IDB (represented by the Water Management Alliance) regarding construction access routes on either side of the river Welland. Through discussions regarding the access arrangements, it was established that the crossing schedule omitted the utility data for a small area and that the 'sluice pipes' from the IDB pumping stations, running under the access tracks to the river were not recorded. These omissions were corrected in the updated crossing schedule and plan. These updates only relate to the two IDBs referred to above.
Q1 WE 1.5	Lincolnshire County Council (LCC) The Environment Agency Anthony Kindred Lisa Kindred	**Flood Risk in the Fosdyke Area** In the Relevant Representation (RR) submitted by Anthony Kindred [RR-084], a concern was raised about the Fosdyke Flooding, and the RR submitted by Lisa Kindred [RR-085] raised a concern about flooding due to damage to existing drainage dykes. The Applicant emphasises that the Flood Risk Assessment [APP-211] confirms that the Proposed Development is not expected to have any impact on the Flood Risk of the Fosdyke Area during construction and operation. The Applicant also highlights that the high-level parameters for the crossing of drains are included in the Outline Code of Construction Practice and will be secured through the DCO. With reference to the RR, as well as the Applicant's response to Relevant Representations in RR084.004 and RR-085.006 of [PD1-071], do you find the Applicant's conclusions regarding the Flood Risk of the Fosdyke area to be satisfactory? If not, please explain your view with evidence to support it.	

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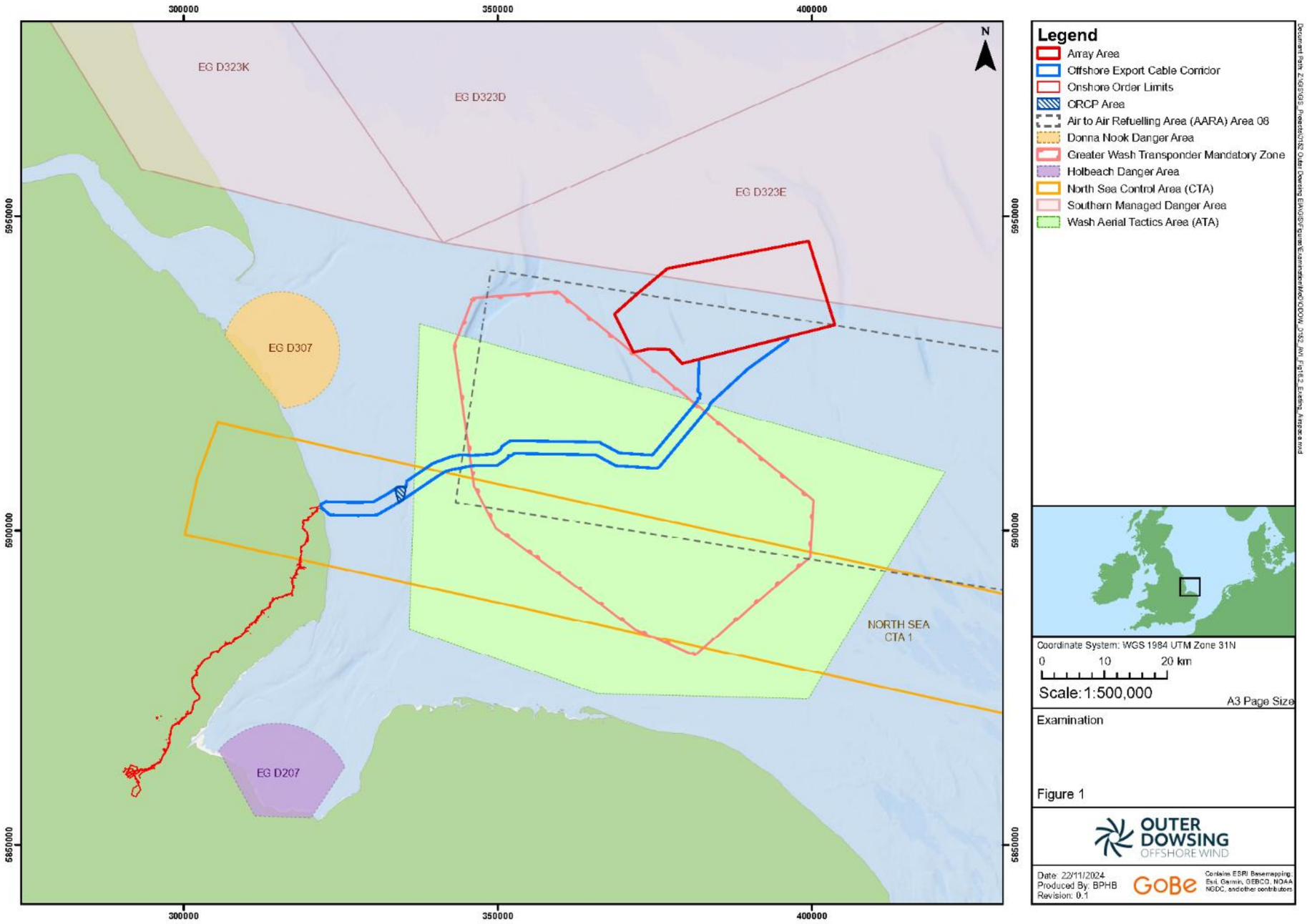
Appendix 1.3 Q1 CM 1.3. Safeguarding zone surrounding Holbeach Air Weapons Range Figure



Appendix 1.6 Q1 CA 1.29 Indicative National Grid Substation Locations and Associated ODOW Cable Corridors

Site Plan

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DALCOUR MACLAREN

Key:

- Order Limits - Onshore Only
- Indicative Working Corridor* (60m)
- Indicative National Grid Substation Location* (400m x 300m)

Notes:

*The locations of the National Grid substation and works corridor are purely indicative, and are suggestions made by the Applicant without engaging with National Grid or other parties

Coordinate System: British National Grid
Projection: Transverse Mercator
Datum: OSGB 1936

Interest: N/A

Location: Weston Marsh, South Holland, Lincolnshire, PE12 6HF

Coords: 529324, 328419

Scheme Name: Outer Dowsing General

Drawing Name: Information Plan

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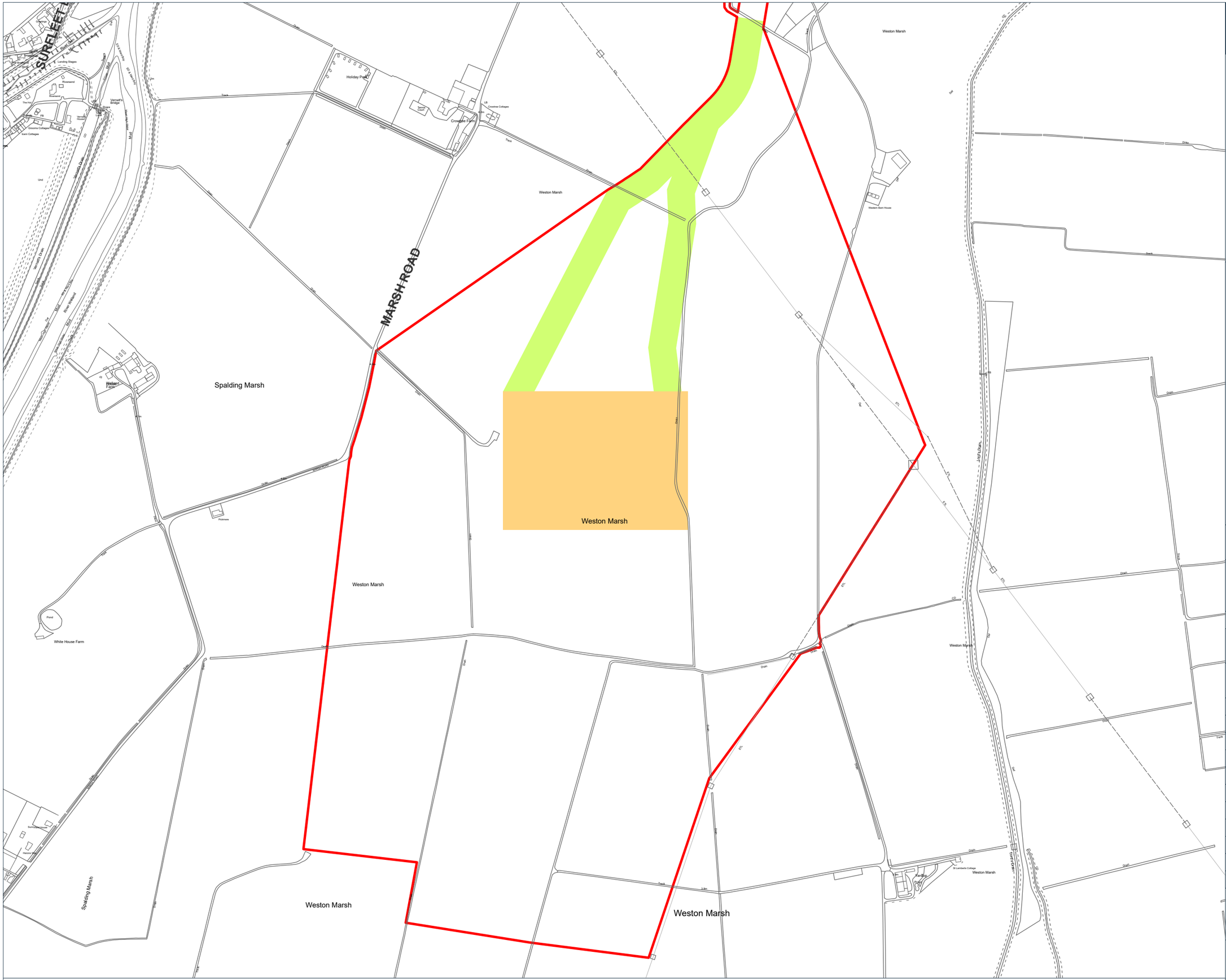

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Sheet Size:	A3

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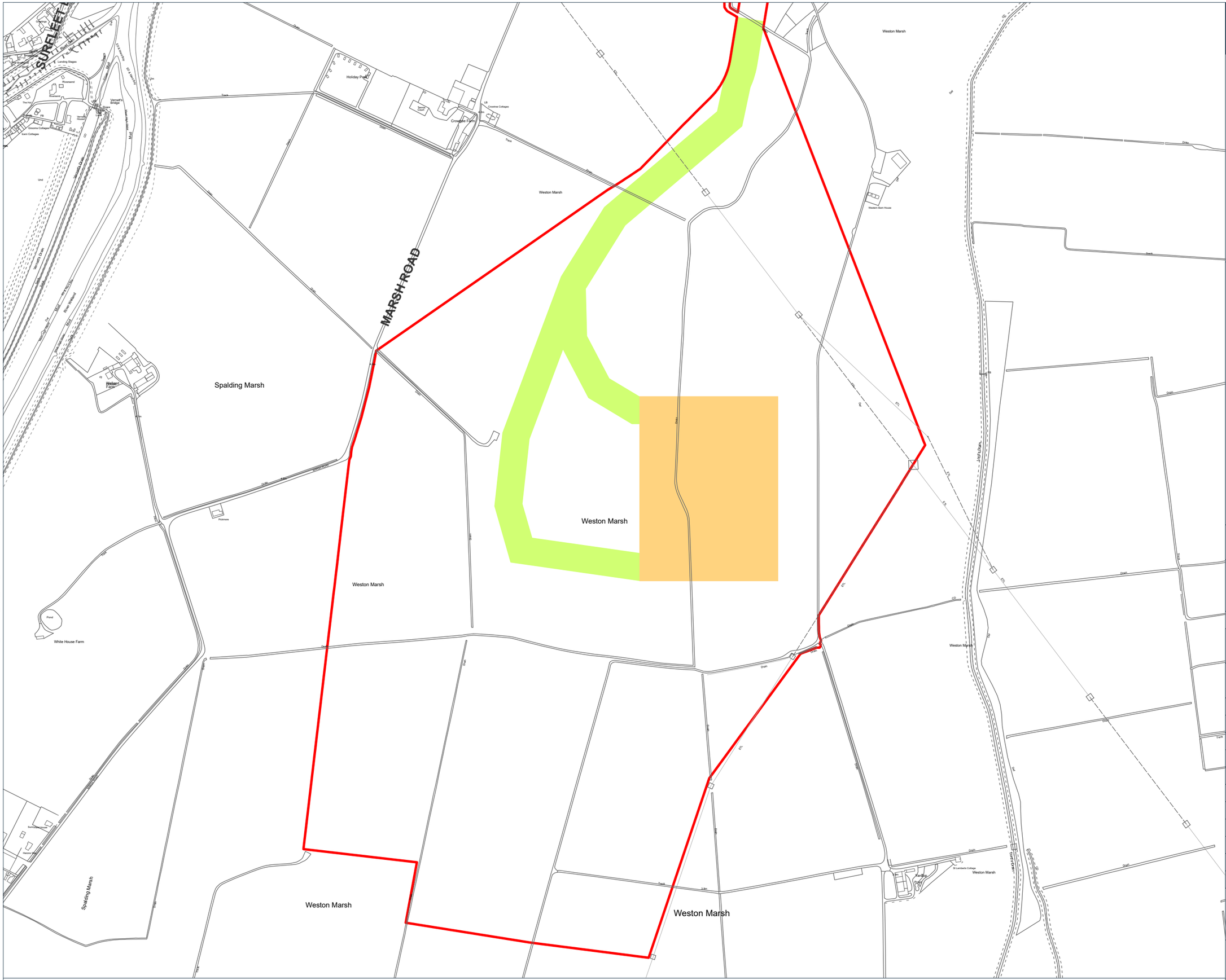

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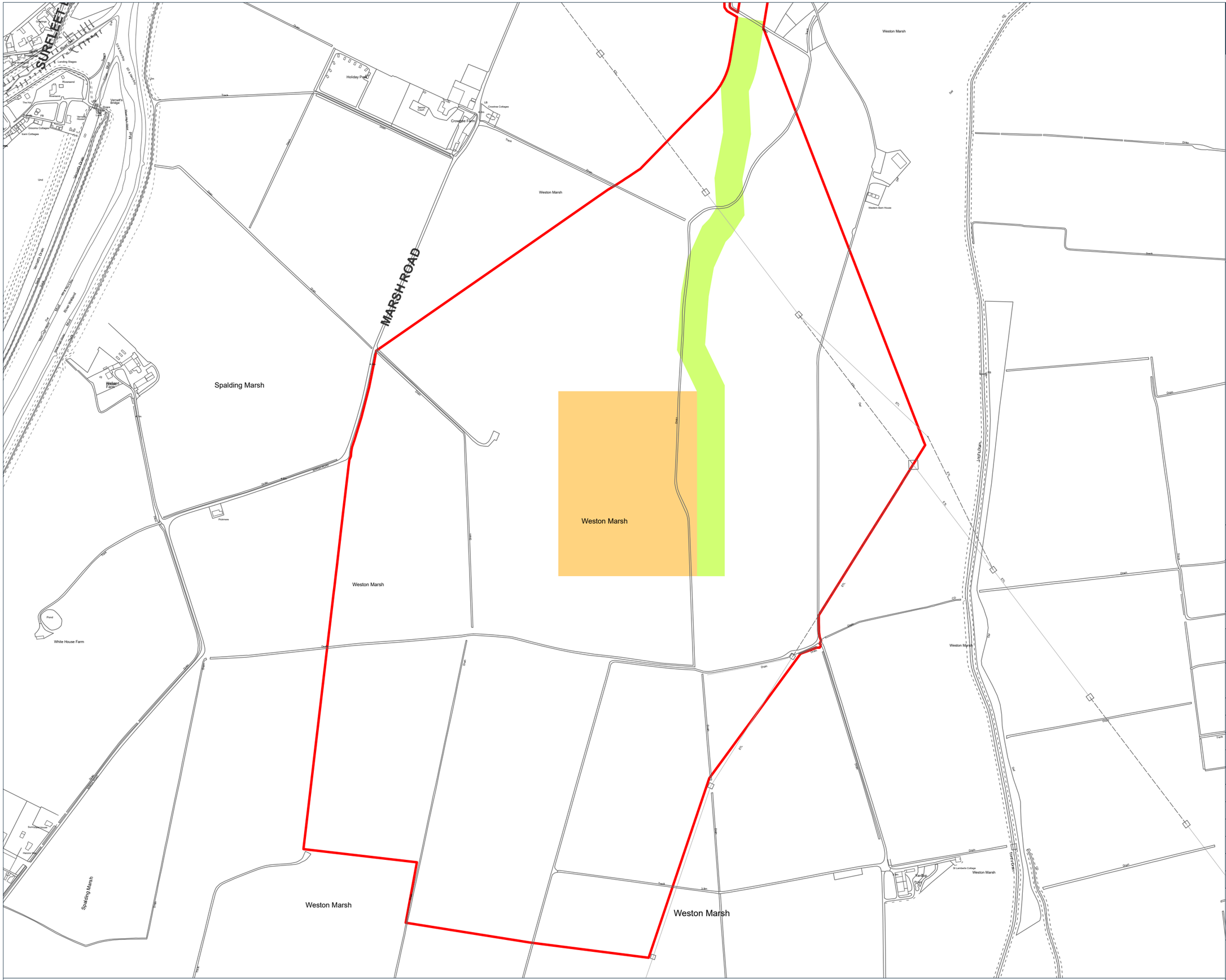

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Interest:
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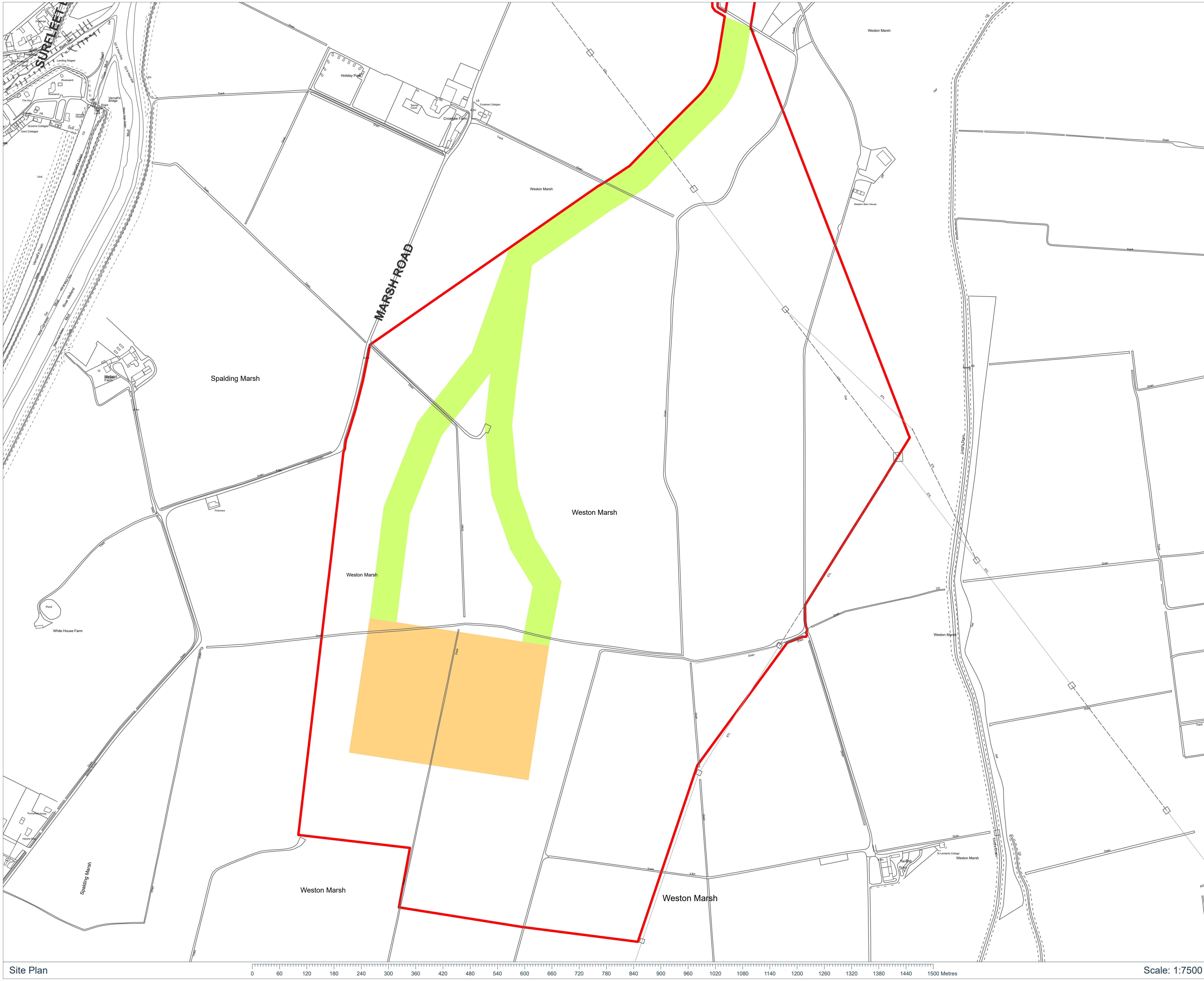

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DALCOUR MACLAREN

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Interest:
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Location:
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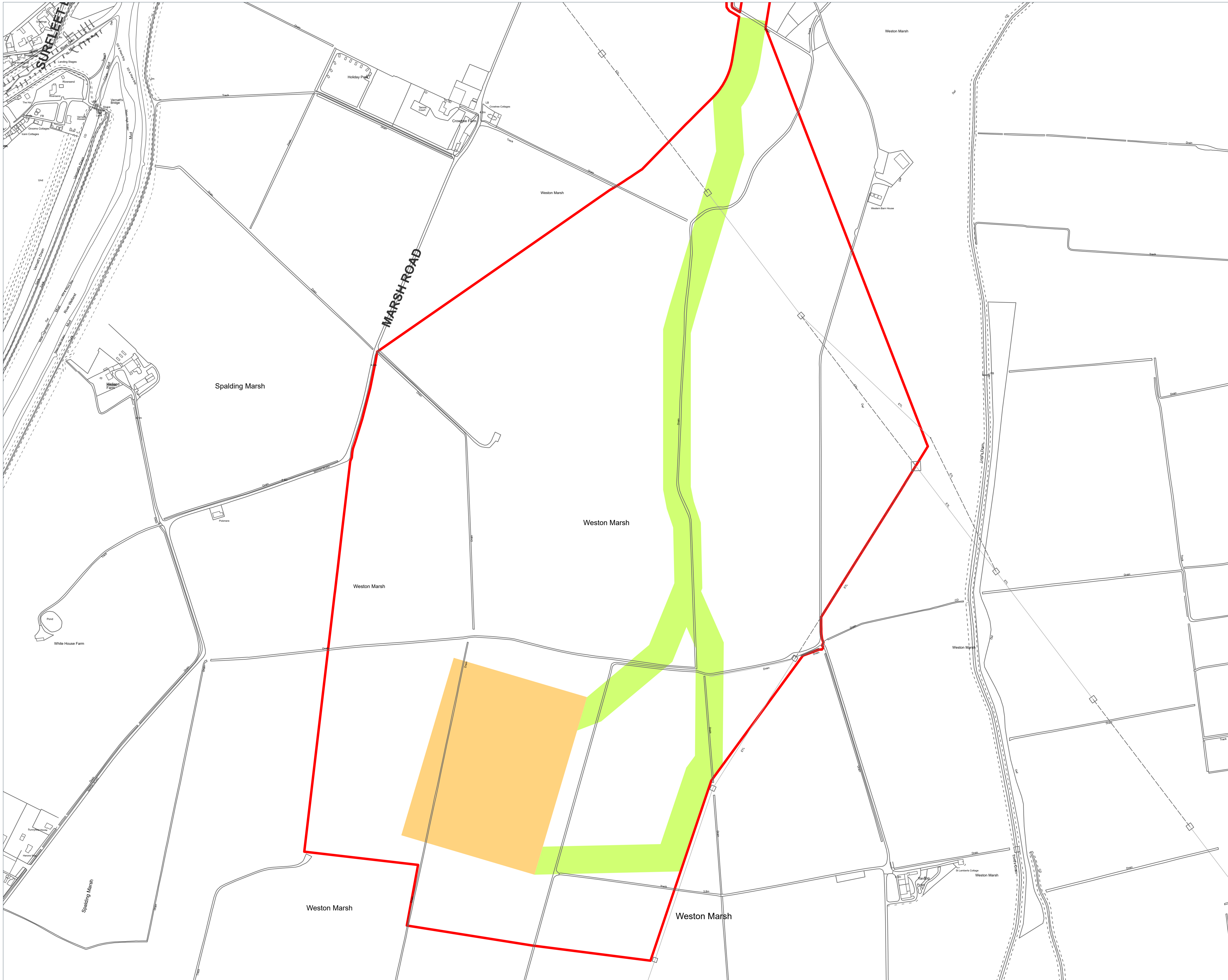

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DALCOUR MACLAREN

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Datum: OSGB 1936

Interest:
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Location:
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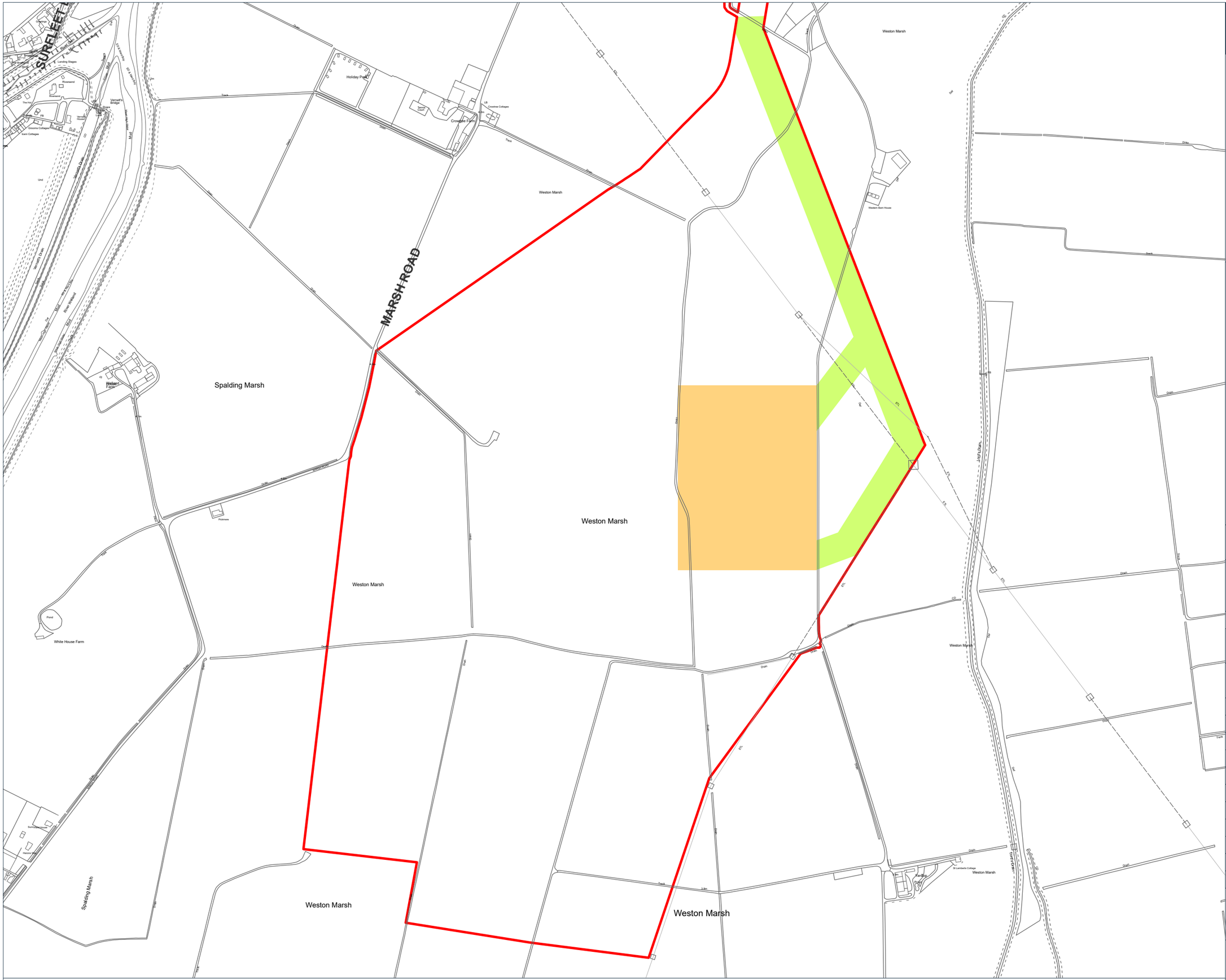

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DALCOUR MACLAREN

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N/A

Location:
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Coords: 529324, 328419

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OUTER DOWSING OFFSHORE WIND

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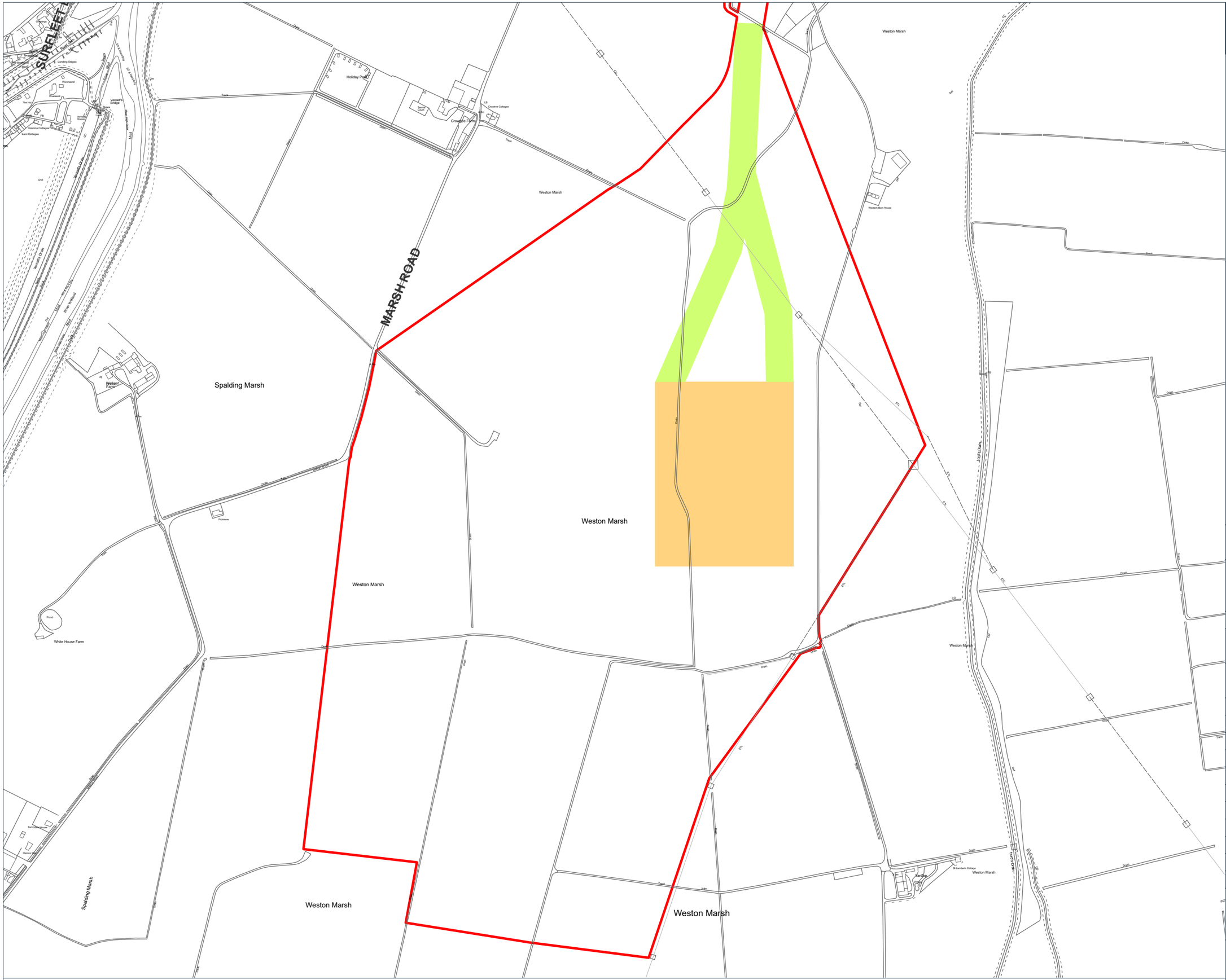


DALCOUR MACLAREN

Key:

- Order Limits - Onshore Only
- Indicative Working Corridor* (60m)
- Indicative National Grid Substation Location* (400m x 300m)

Notes:

*The locations of the National Grid substation and works corridor are purely indicative, and are suggestions made by the Applicant without engaging with National Grid or other parties

Coordinate System: British National Grid
Projection: Transverse Mercator
Datum: OSGB 1936

Interest:
N/A

Location:
Weston Marsh, South Holland, Lincolnshire, PE12 6HF

Coords: 529324, 328419

Scheme Name:
Outer Dowsing General

Drawing Name:
Information Plan

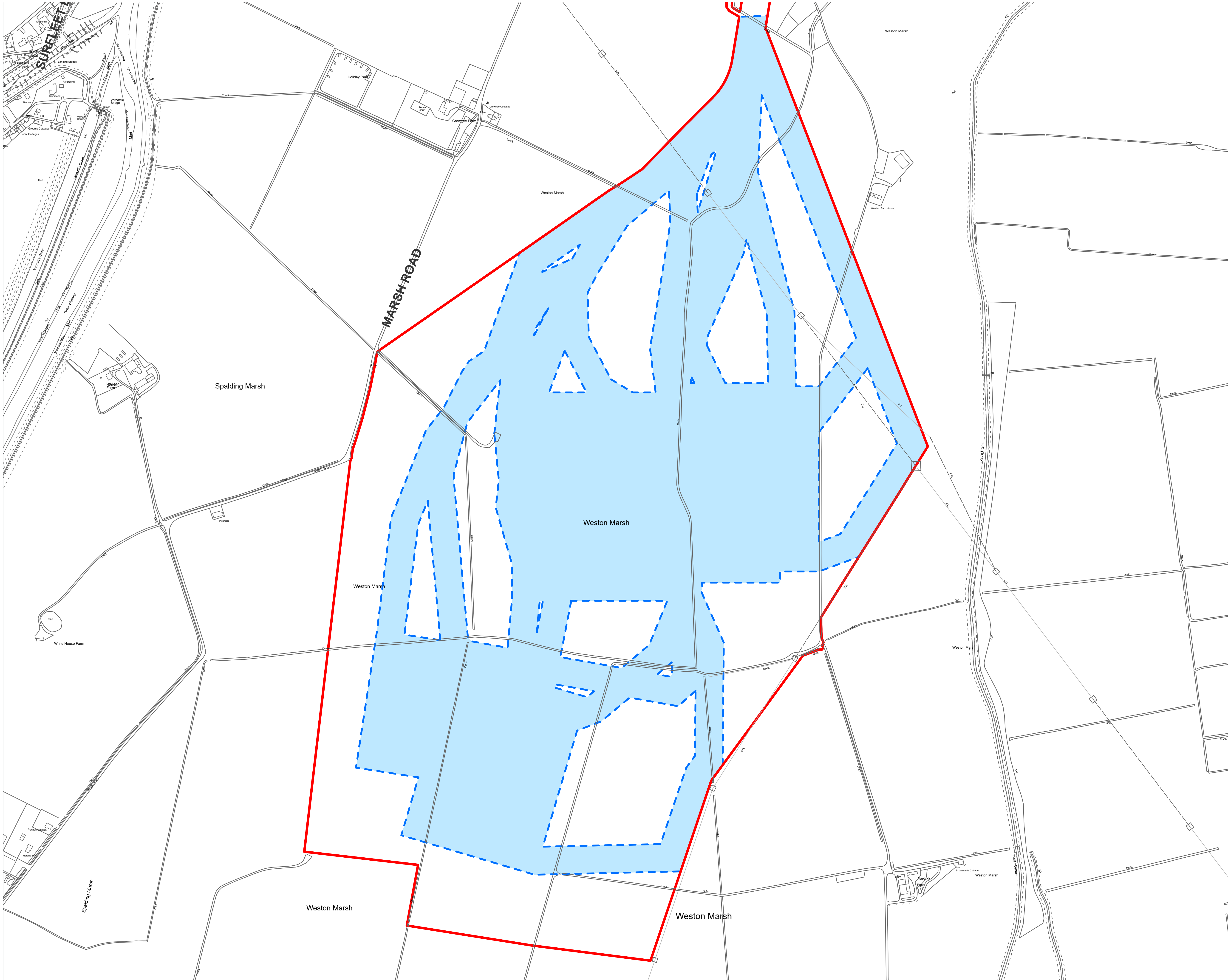
Drawing No: 22000087_PLN_INFO_13267.1

Rev	Date	Description
-	26.11.2024	First Issue

Drawn:	WS
Approved:	CB
Sheet No:	1 of 1
Sheet Size:	A3

OUTER DOWSING OFFSHORE WIND

Drawing Location: C:\Users\William.Stott\Dalcour Maclaren\Outer Dowsing General 22000087 - Geomatics\01 DM Plans\20241125_22000087_PLN_INFO_13260.1\20241125_22000087_PLN_INFO_13260.aprx



Site Plan

0 60 120 180 240 300 360 420 480 540 600 660 720 780 840 900 960 1020 1080 1140 1200 1260 1320 1380 1440 1500 Metres

Scale: 1:7500

Drawing Location: C:\Users\William.Stott\Dalcour Maclaren\Outer Dowsing General 22000087 - Geomatics\01 DM Plans\20241125_22000087_PLN_INFO_13260.1\20241125_22000087_PLN_INFO_13260.aprx

DALCOUR MACLAREN

Key:

- Order Limits - Onshore Only
- Merged Working Corridor and National Grid Substation Locations*

Notes:

*The locations of the National Grid substation and works corridor are purely indicative, and are suggestions made by the Applicant without engaging with National Grid or other parties

Coordinate System: British National Grid
Projection: Transverse Mercator
Datum: OSGB 1936

Interest:
N/A

Location:
Weston Marsh, South Holland, Lincolnshire, PE12 6HF

Coords: 529324, 328419

Scheme Name:
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Drawing Name:
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Rev	Date	Description
-	26.11.2024	First Issue

Drawn:	WS
Approved:	CB
Sheet No:	1 of 1
Sheet Size:	A3

OUTER DOWSING OFFSHORE WIND

Appendix 1.9 Q1 DES 1.2 Substation Community Liaison Group Meeting Minutes and Presentation (July 2024)


OUTER
DOWSING
OFFSHORE WIND
[redacted]
Community Liaison Group Meeting
July 2024

Agenda

- Terms of reference
- Introductions
- Project Update
    - Survey activity
    - Examination high level update with timeline
    - Outer Dowsing in the community

Local Design Panel

- The Design Review Process
- The Onshore Substation
- Design review elements
- Feedback from DRP
- Timeline & Next Steps
- Q&A

Terms of Reference and Aims

Our Aims …

To involve key local stakeholders in the design and development of the Outer Dowsing Offshore Wind project (landfall, onshore cable route and substation) through presentations, discussions and planned workshop activities.

To act as a two-way communication channel between local communities and the project team.

To help foster local involvement and ownership of the project.

To facilitate focused discussions and ensure attendees can make the most out of the CLG's – it is intended for these groups to be focused on concerns/ issues / thoughts relative to their specific **local area.**

Approval of previous minutes

?

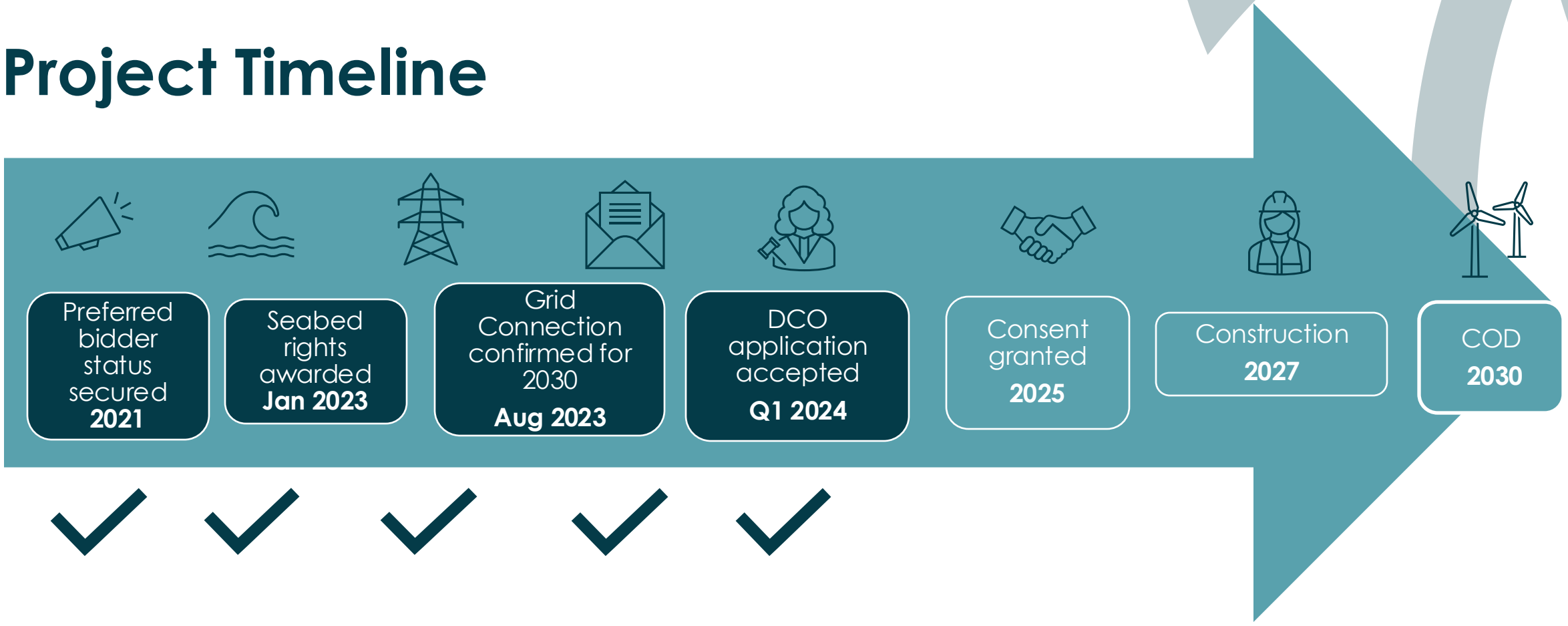
Any comments or queries prior to the meeting?

!

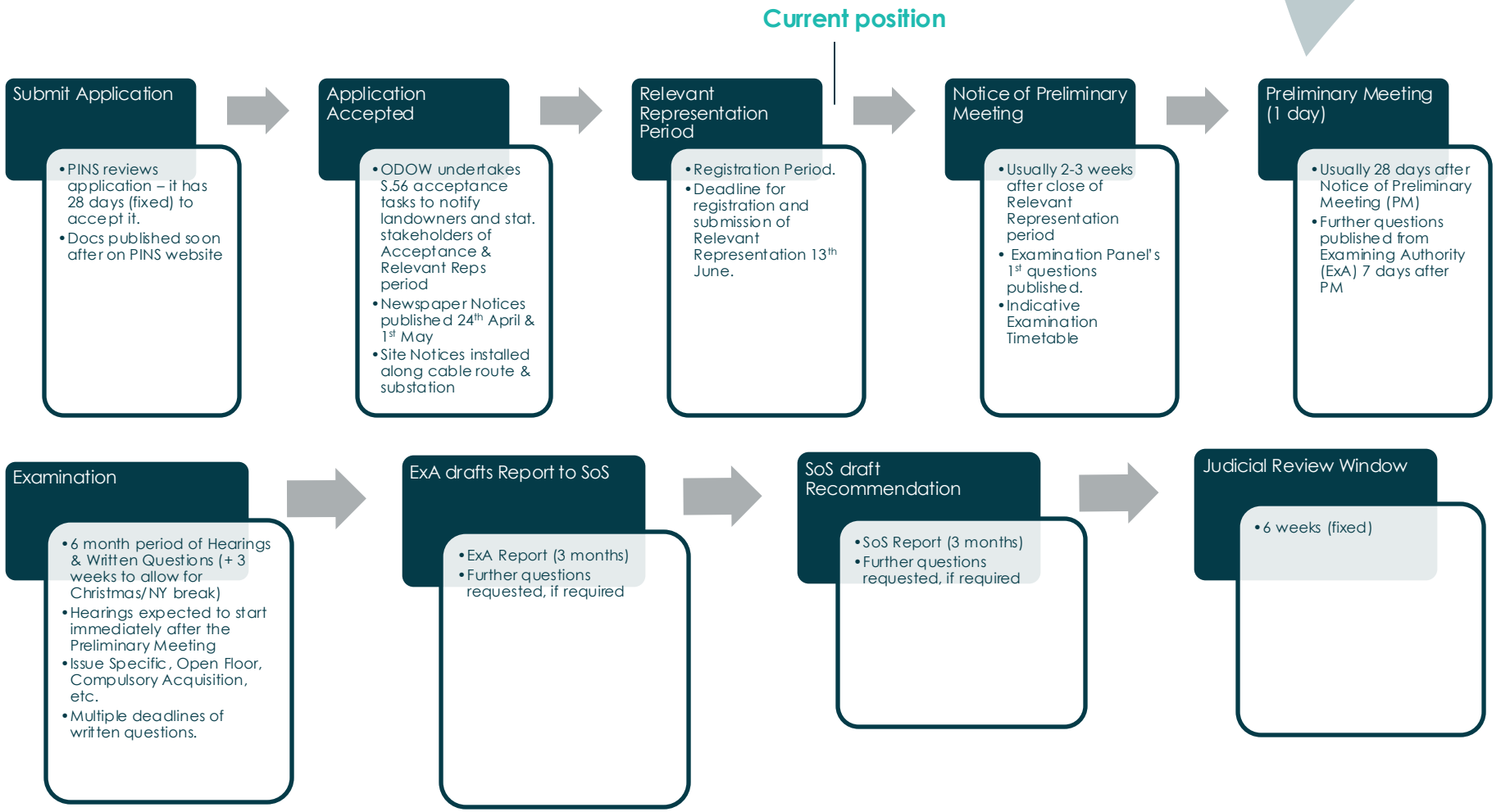
Declaration of Conflicts of Interests.

Project Update

Project Timeline



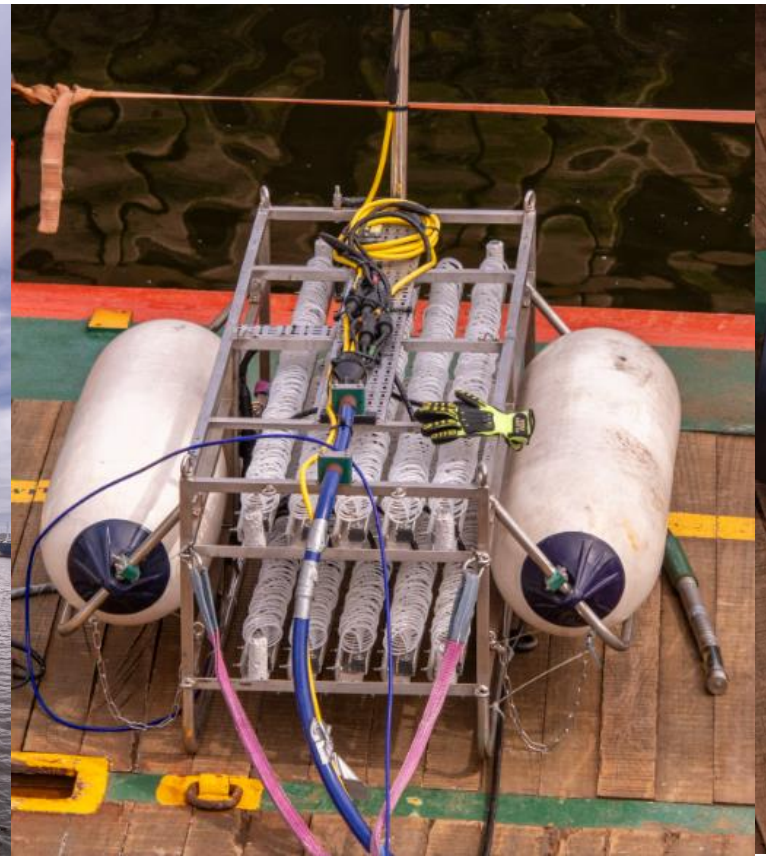
DCO Examination Process – DCO accepted on 16th April

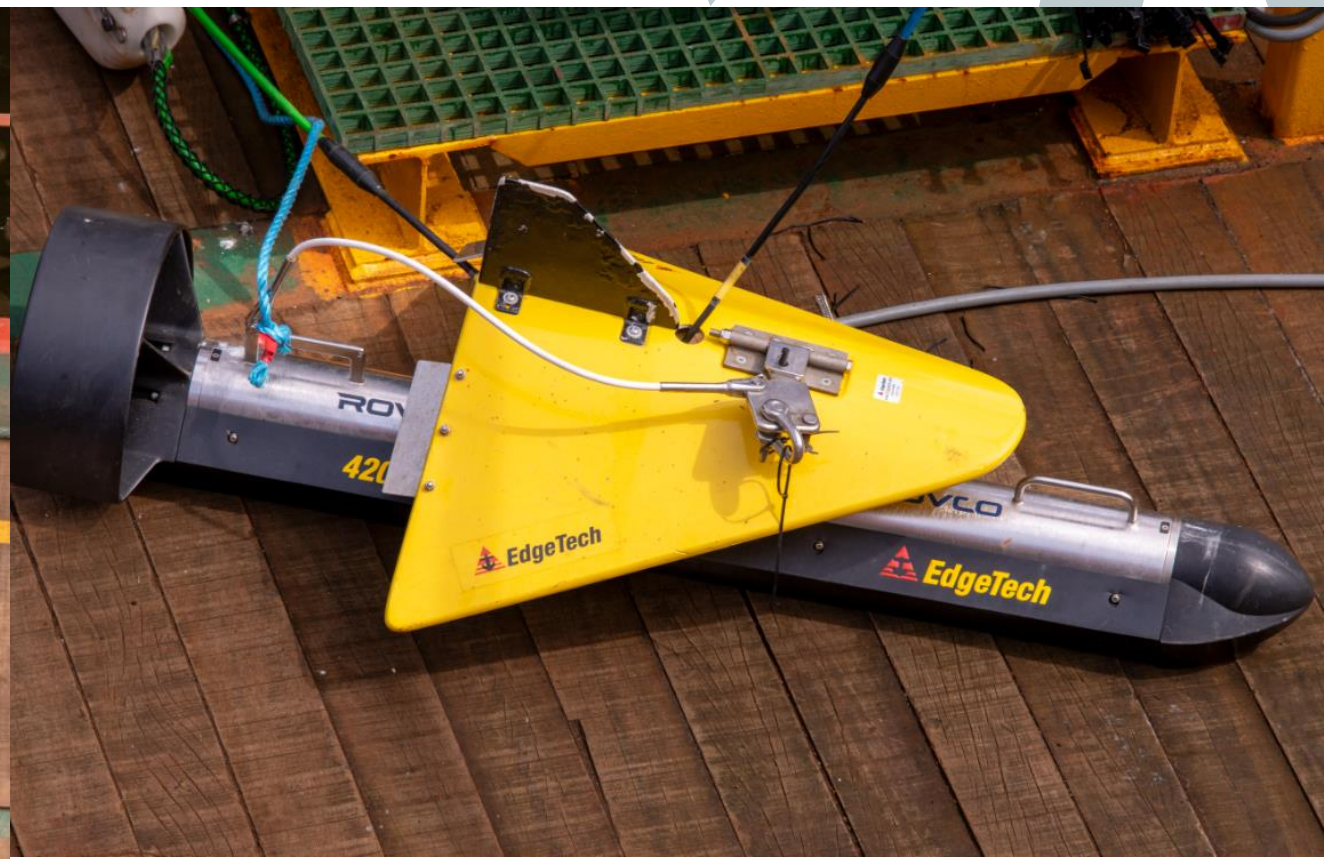


Survey update

Activity	Location	Timing and Duration
Offshore geophysical surveys	Various offshore locations	July until later in the year
Onshore geophysical site investigations	Lincolnshire fields	Completed in June
Onshore geotechnical boreholes and trial pits	Lincolnshire fields	Completed in May
Nearshore Geotechnical works (seabed survey)	Off the coast from Anderby Creek	Due for completion by end of July
Onshore Archaeology Excavation	Lincolnshire fields	July - September

Offshore Geophysical, Environmental & Geotechnical Surveys 2024





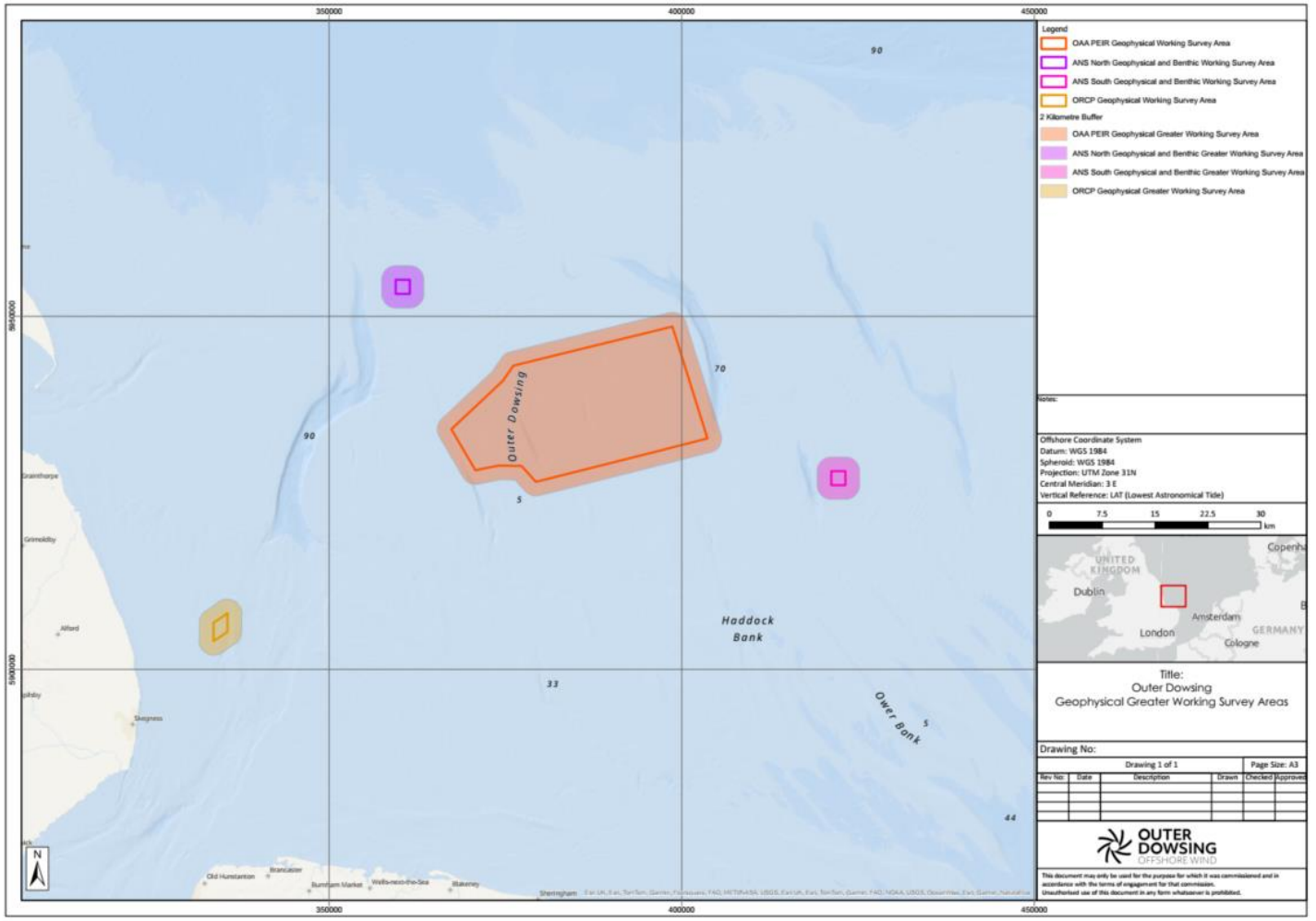
Offshore Geophysical & Environmental Surveys 2024

Offshore Geophysical Survey 2024

Outer Dowsing Offshore Wind (a joint venture between TotalEnergies, Corio Generation and Gulf Energy) are conducting a 2 month offshore geophysical survey between 27th May and 18th July 2024 using the vessel *Glomar Supporter* call sign: HOAL. The survey vessel shall at times be towing a cable up to approximately 100m behind the vessel (the end marked by a tail buoy) at depths of up to 3m below sea level. The survey vessel shall have limited maneuverability so please allow a safe distance. The survey vessel is also accompanied by a Guard / Scout vessel.

Company:	Outer Dowsing Offshore Wind
Contractor:	ROVCO Limited
Survey Vessel:	Glomar Supporter
Survey Vessel call sign:	HOAL
Earliest Start date:	27th May 2024
Latest Finish date:	18th July 2024

Company:	Outer Dowsing Offshore Wind
Contractor:	NFFO Services Limited
Guard/Scout Vessel:	Atlas WY170
Guard Scout Vessel call sign:	MPUD3



Geotechnical Seabed Survey – Visible from Anderby Creek

What is happening?

This work is related to the Outer Dowsing Offshore Wind farm. Construction of the wind farm and associated onshore infrastructure will not begin until 2027 at the earliest, but ahead of the construction it is necessary to carry out various surveys to get samples of the subsurface to plan the engineering. The geotechnical jack-up rig you can see will take a small sample of the soil and rocks below the seabed which will then be analysed by our engineers to plan the underground cable installation works.

Why are you doing this?

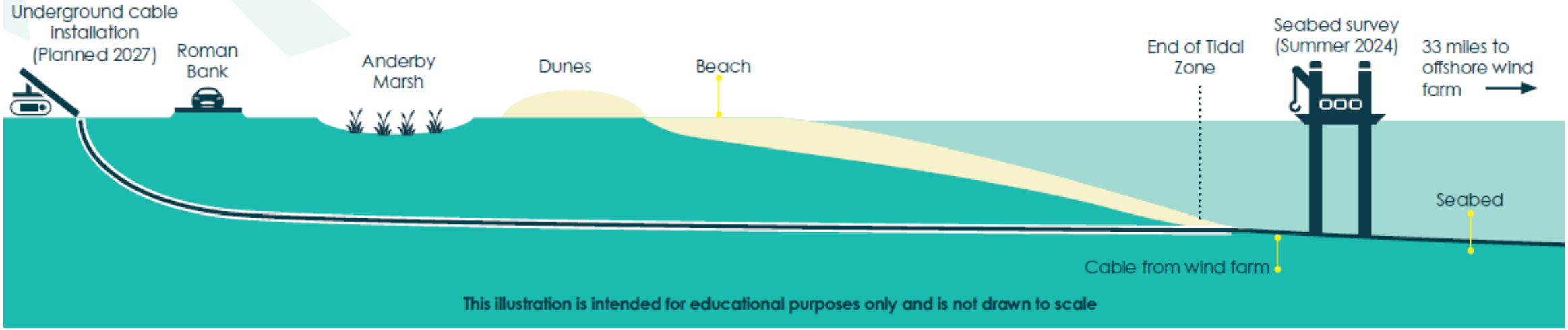
Outer Dowsing Offshore Wind is a wind farm planned to be built in the North Sea, 54km (33 miles) offshore. To avoid impacts to the beach and surrounding sensitive areas, we will bring the electrical cables ashore using horizontal directional drilling. The plan is to install the cable from a field west of the Roman Bank, under the sensitive areas until it is past the tidal zone.

How long will the survey take?

The geotechnical jack-up rig will be doing works just offshore, past the tidal zone, for a period of approximatively 3 weeks from July 1st. The beach will remain open and there will be no works on the beach.

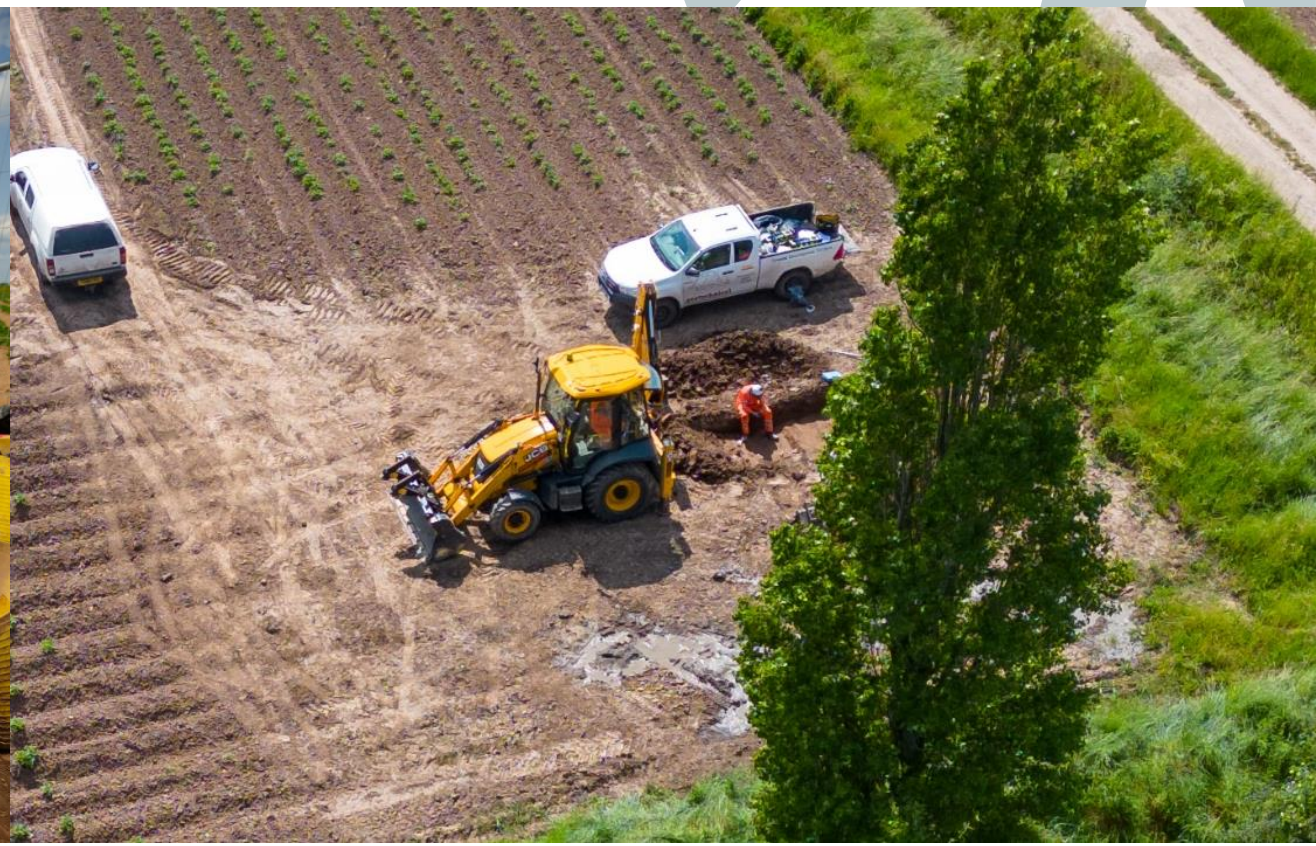
Keeping safe

During operations it is important that we keep everyone safe. Please therefore refrain from approaching the vessel or interacting with it, or the crew, in any way so that they can complete their works safely and to schedule.



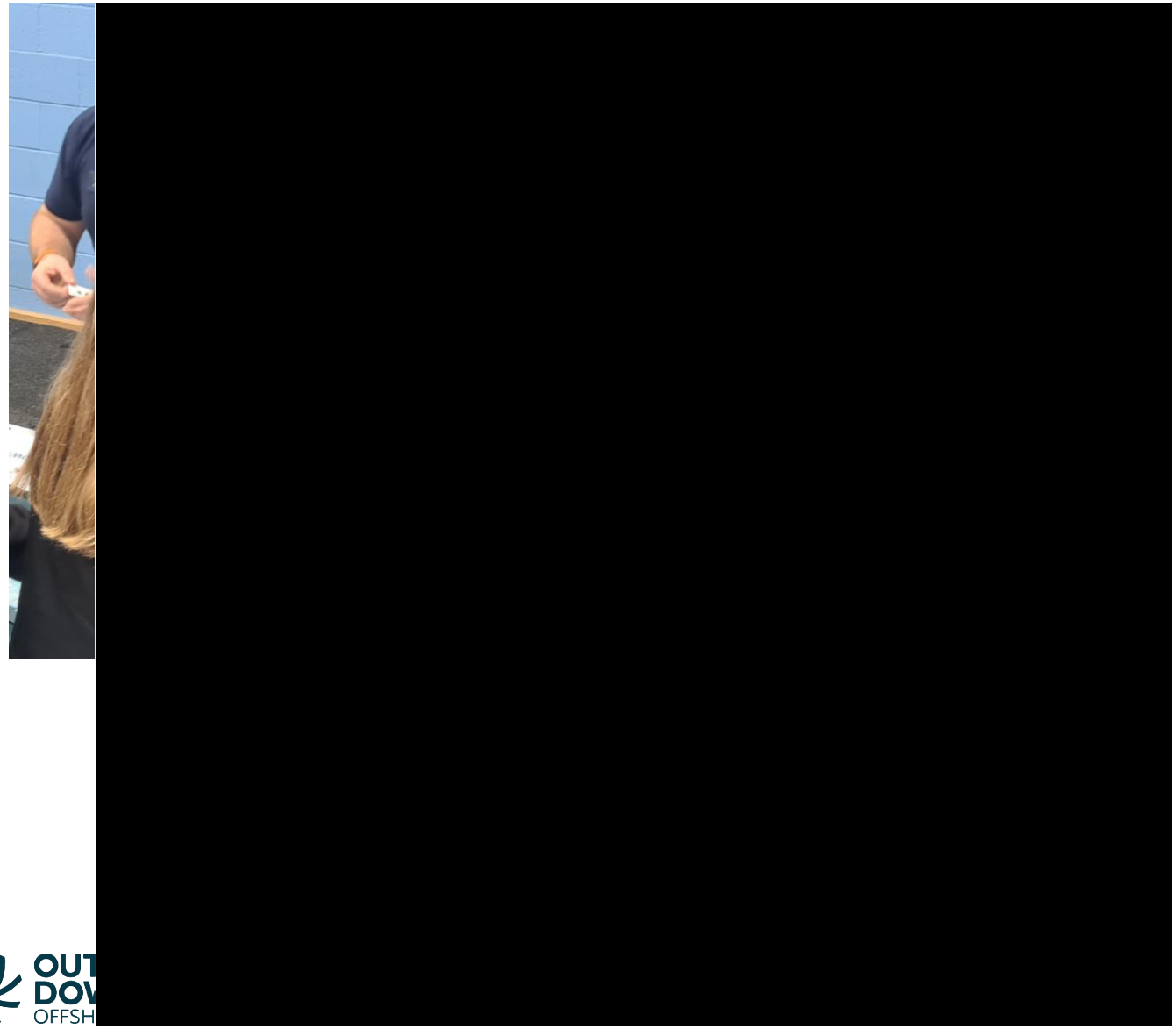
Onshore geophysical investigations – *Completed*

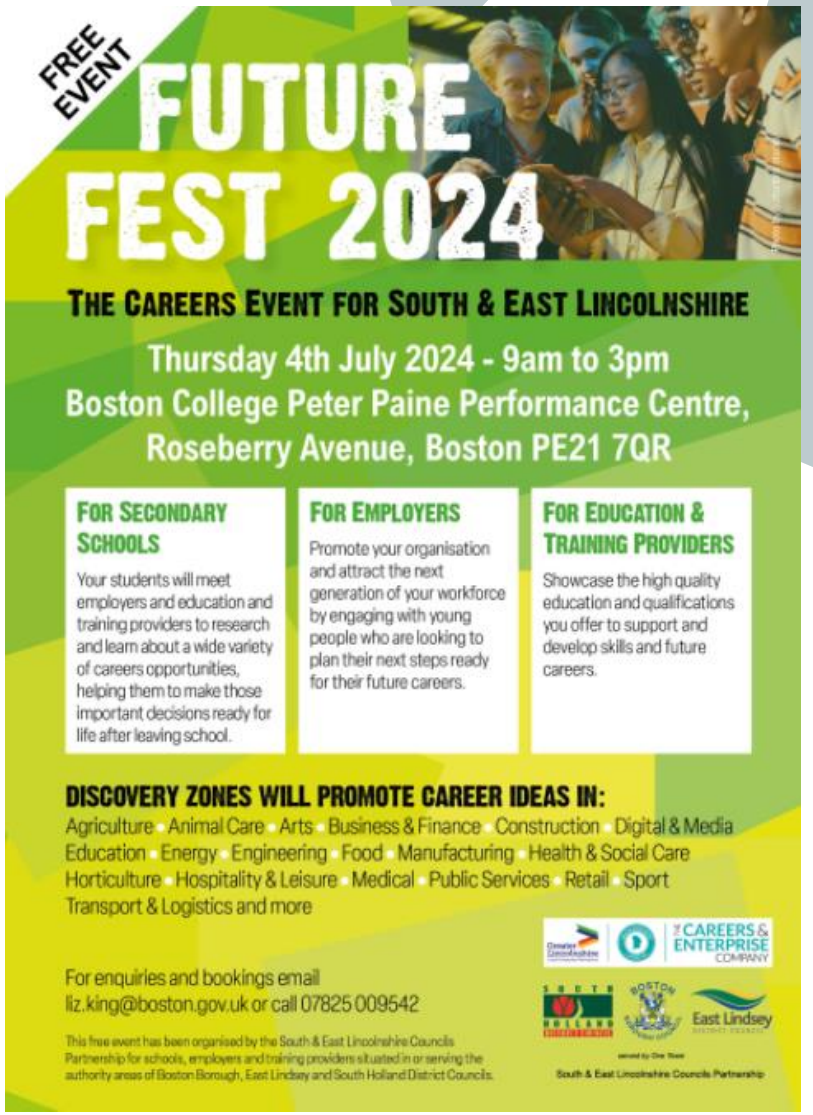
Onshore engineering and archaeology boreholes and trial trenches



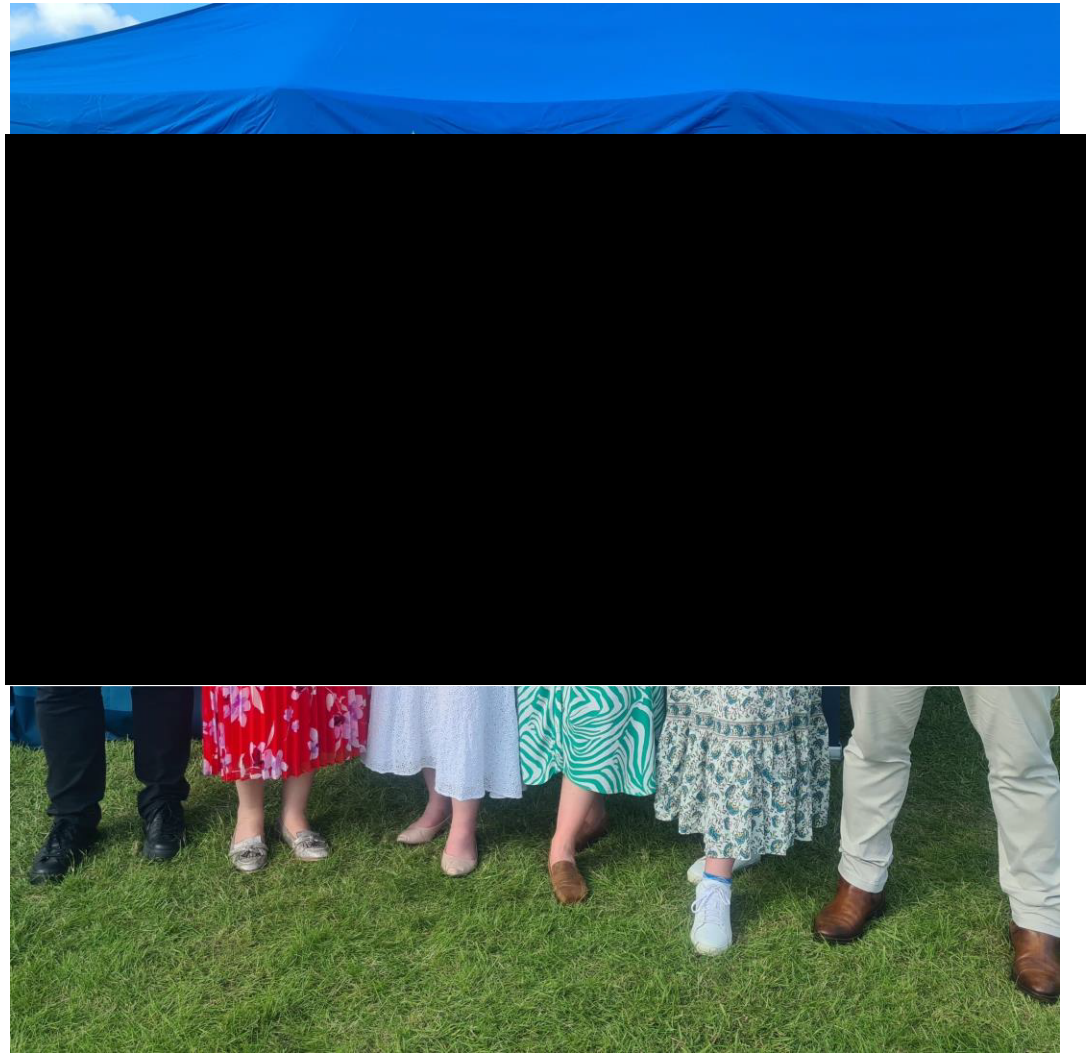
Outer Dowsing in the community

Inspiring the young engineers of the future





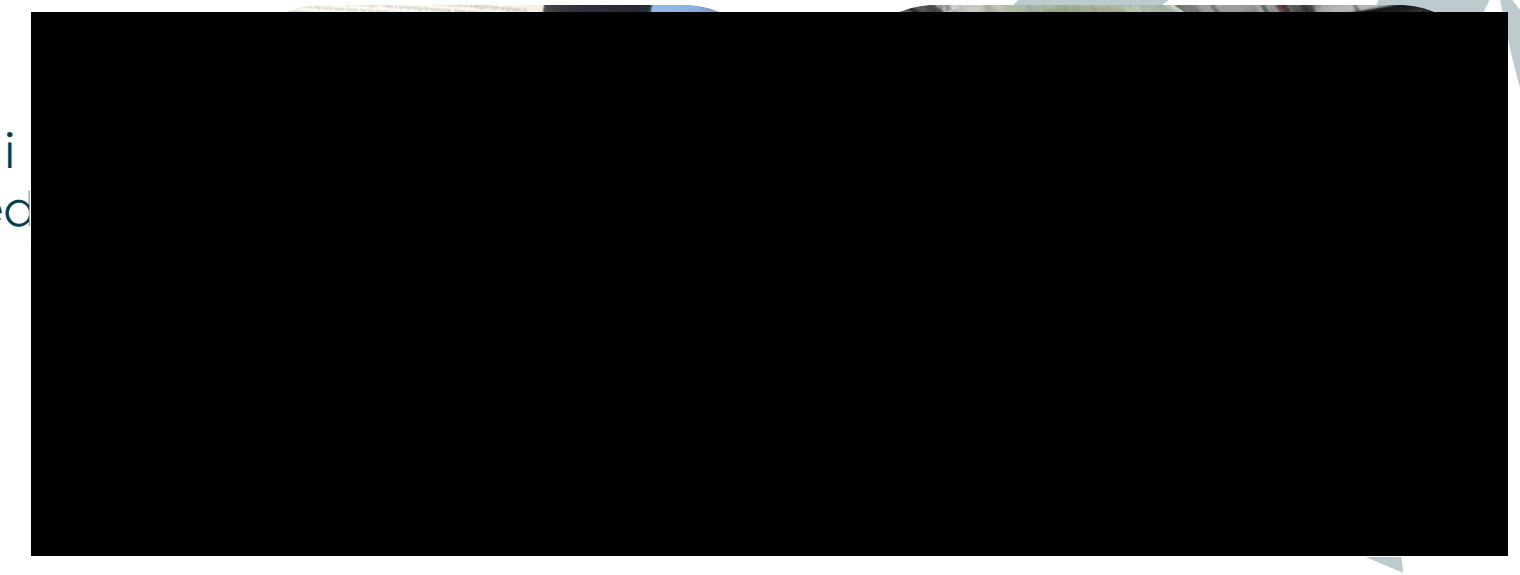
The Lincolnshire Show



Investing in the UK

We will work to Maximize investment i the UK supply chain and create skilled jobs

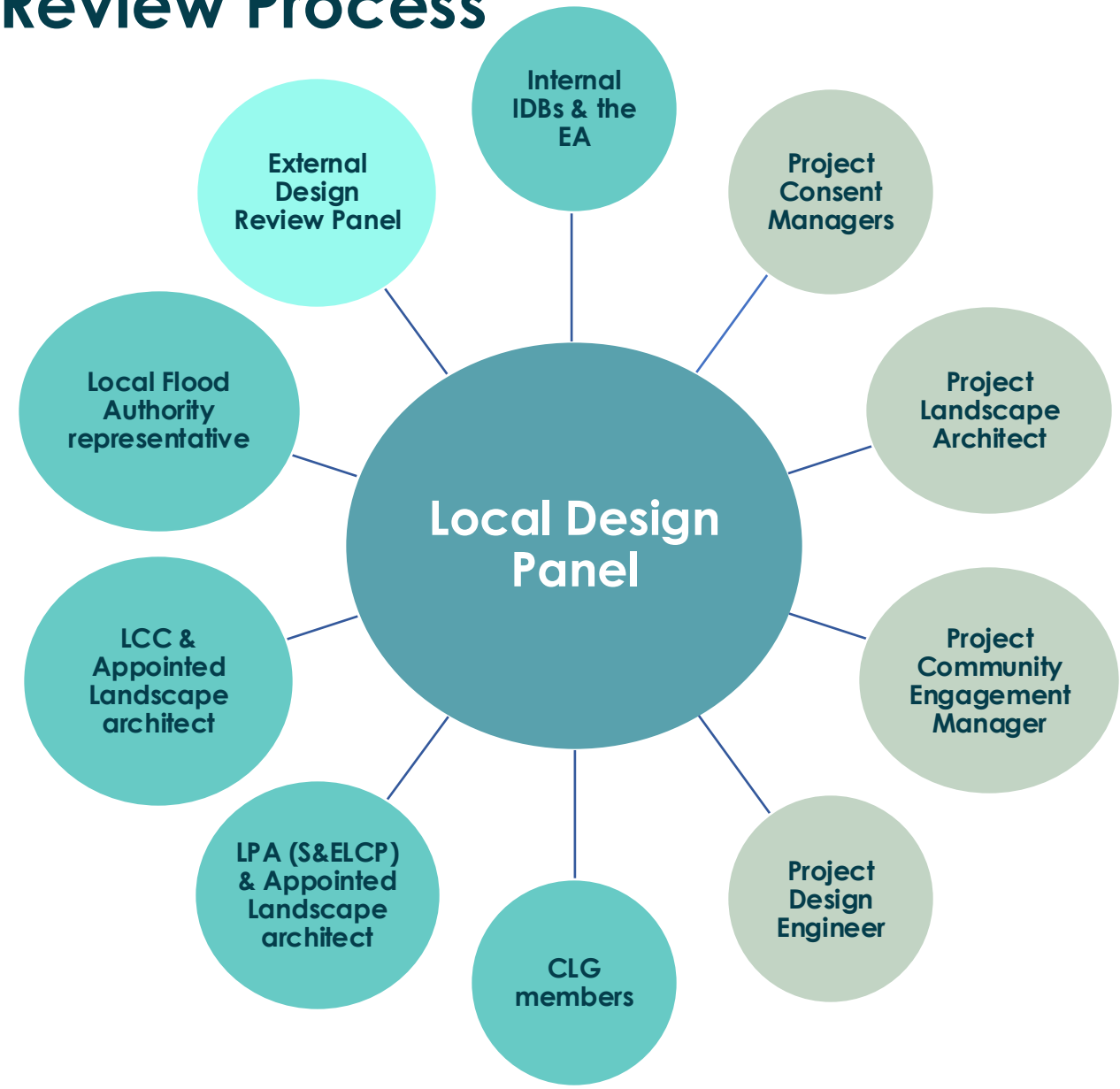
- Over **£2billion** estimated investment in the UK
- Over **1000 UK-based** skilled jobs during construction
- Over **400 UK-based** skilled jobs during operations for 35 years
- **STEM program** launched to inspire next generation of engineers
- **Community Benefit Fund** to launch after FC



Design Review Process

The Onshore Substation Design Review Process

- Local Design Panel first meeting (LDP-1) in January 2024
- **External Design Review – Undertaken 11 June**
- Engineers to assess technical requirements & progress detailed design
- Local Design panel will be consulted as the design progresses



Maximum Design Scenario

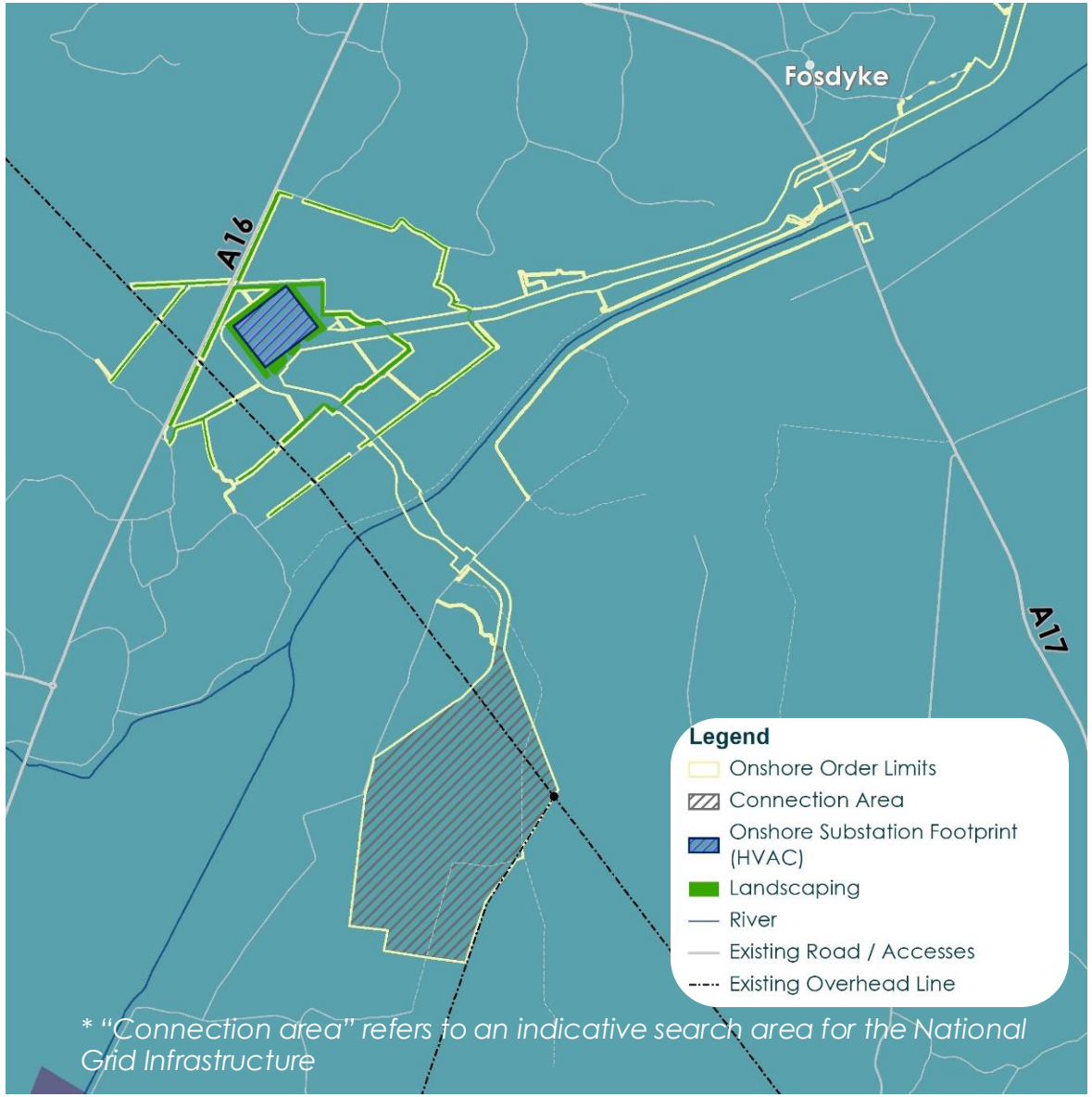
- "Worst case scenario"
- Defined based on two potential technologies still under consideration that will impact the footprint and maximum heights of buildings:
  - **Air Insulated Switchgear (AIS)**
  - **Gas Insulated Switchgear (GIS)**

The Onshore substation (OnSS)

Onshore substation

- Following a **decision from the National Grid** that our connection point would be in the vicinity of Weston Marsh, we were able to remove Lincs Node from our Project Scope.
- We subsequently selected **Surfleet Marsh** as the optimum site for our substation taking into account multiple factors including engineering and environmental considerations.
- There will also be a need for a National Grid substation and associated enabling works within the vicinity of the project's onshore substation which we will connect to using 400kV underground cables which will run between our project substation and that which will be developed by National Grid Electricity Transmission

1 **Confirmed** Grid Connection Location	1 **Confirmed** Substation Location	**14.5 hectares** Onshore AIS Substation Footprint	**13m** Onshore AIS Max. Equipment Height	**16.5m** Onshore GIS Substation Max. Building Height
Down from **2 options**	Down from **3 search zones**	Up from **9.5 hectares**	Up from **12m**	Down from **19m**



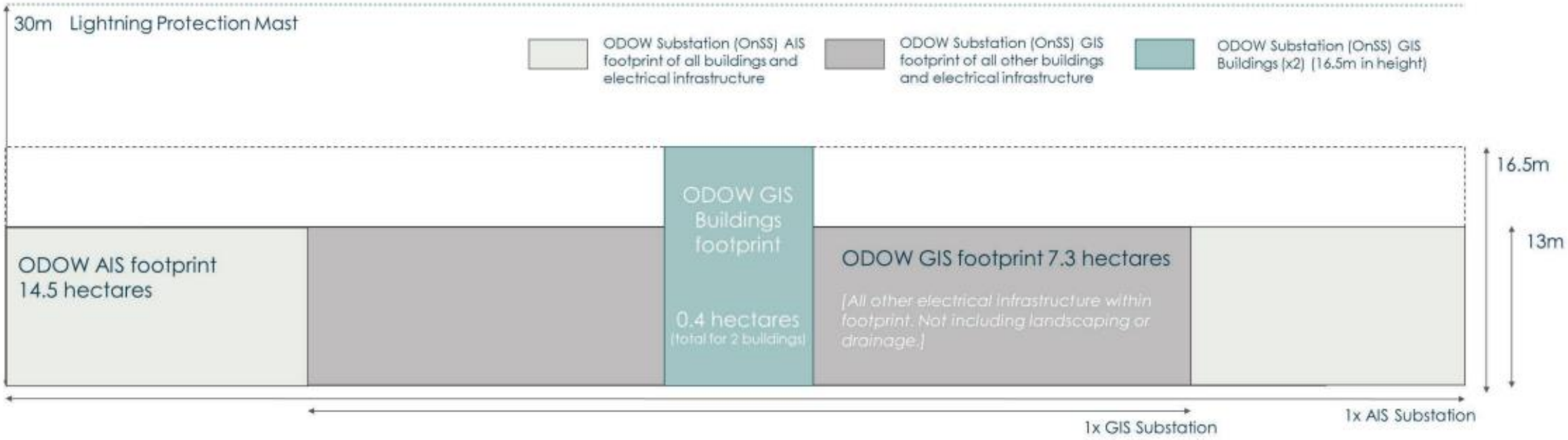
Functional requirements of a substation

The substation area indicated enables the installation and operation of either an AIS (Air Insulated Switchgear) or GIS (Gas Insulated Switchgear) type substation*. From a transmission perspective, AIS or GIS transmits the power generated offshore to meet the grid requirements. The main considerations for the substation are as follows:

- **Insulation Medium:** The AIS uses air as the insulation medium between conductors and equipment, whereas the GIS employs a specialist gas in modular units. GIS equipment offers reduced footprint and maintenance requirements. The switchgear in AIS is outdoors, and GIS is installed indoors and requires additional building.
- **Size and Space:** The AIS substations require a larger footprint, whereas the GIS substations are compact and space-efficient. The AIS maximum height is 13m, whereas the GIS Convertor Hall(s) in a GIS substation could be up to 16.5m in height. *These maximum parameters are represented by a white dashed line on the visualisations.*

**The electrical system design and technology from the Supply chain will impact the selection of the substation.*

Maximum Design Parameters



Post Application Design review elements

Cladding colour & Roof shape options explored

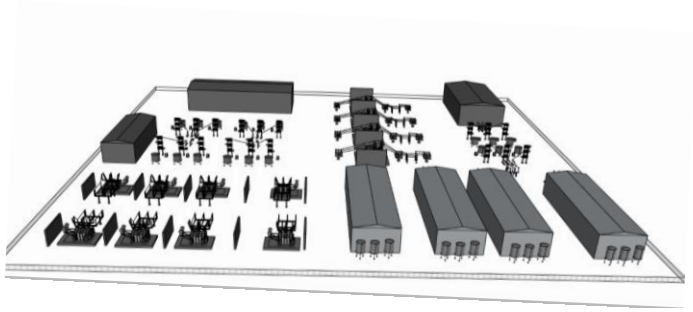
Khaki Green
RAL 100 60 20
BS 12B21

Camouflage
RAL 110 50 10

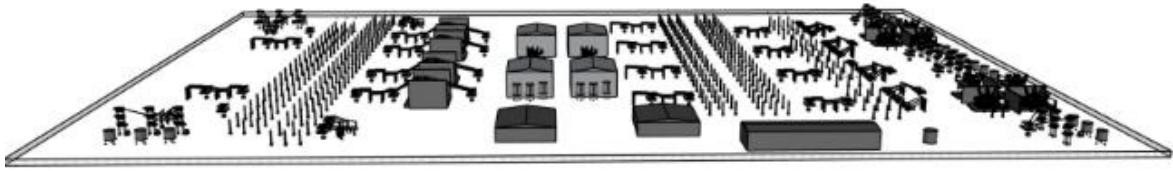
Beige Grey
RAL 7006

Olive Green
RAL 100 30 20
BS 12B27

Above colour options picked out by OPEN following review of both summer & winter photography.



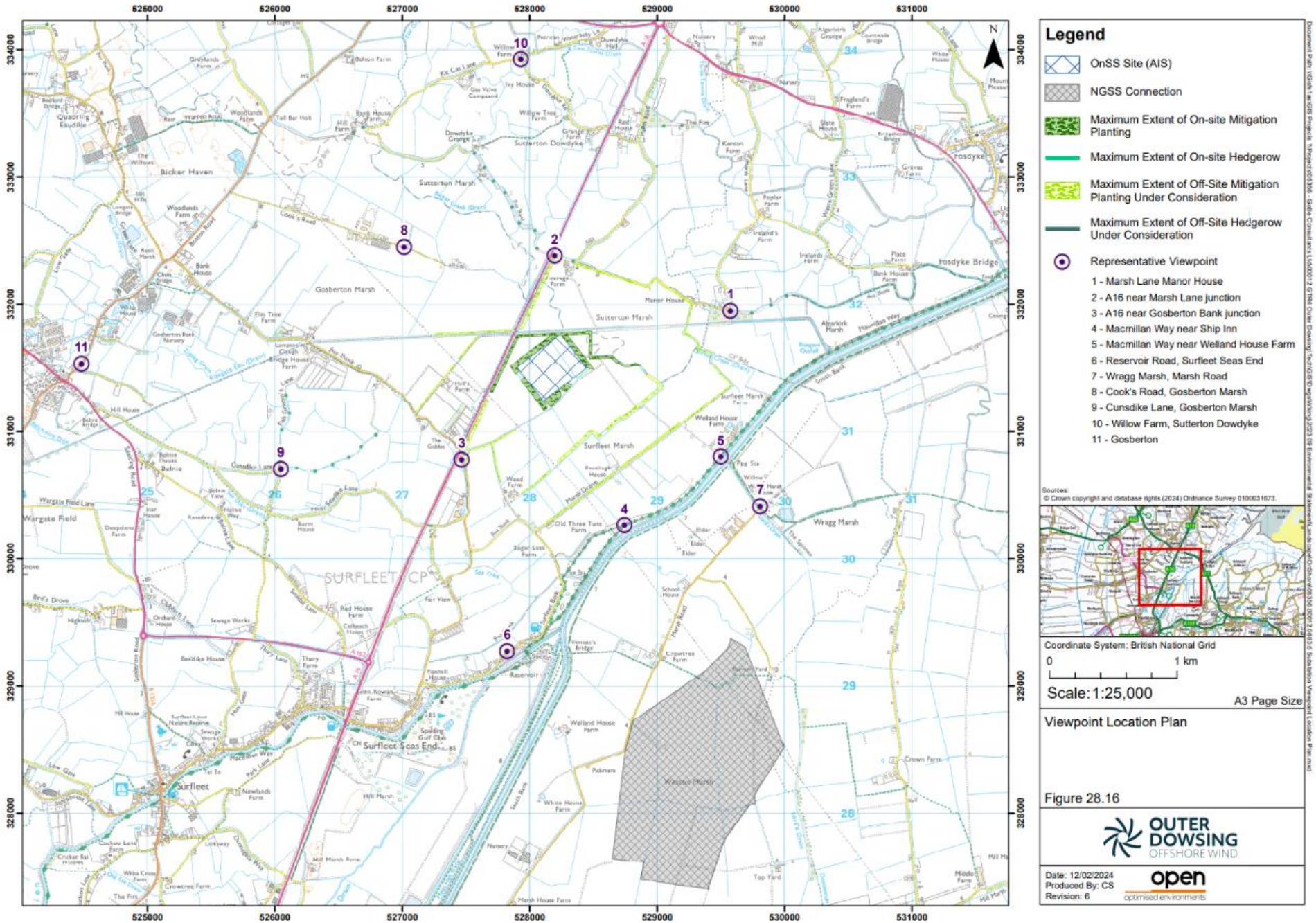
GIS



AIS

Pitched roof models generated to show the difference aesthetically opposed to the flat roof models in the ES visualisations.

Viewpoint locations



Legend

- OnSS Site (AIS)
- NGSS Connection
- Maximum Extent of On-site Mitigation Planting
- Maximum Extent of On-site Hedgerow
- Maximum Extent of Off-Site Mitigation Planting Under Consideration
- Maximum Extent of Off-Site Hedgerow Under Consideration
- Representative Viewpoint
  - 1 - Marsh Lane Manor House
  - 2 - A16 near Marsh Lane junction
  - 3 - A16 near Gosberton Bank junction
  - 4 - Macmillan Way near Ship Inn
  - 5 - Macmillan Way near Welland House Farm
  - 6 - Reservoir Road, Surfleet Seas End
  - 7 - Wragg Marsh, Marsh Road
  - 8 - Cook's Road, Gosberton Marsh
  - 9 - Cunsdike Lane, Gosberton Marsh
  - 10 - Willow Farm, Sutterton Dowdyke
  - 11 - Gosberton

Coordinate System: British National Grid

0 1 km

Scale: 1:25,000 A3 Page Size

Viewpoint Location Plan

Figure 28.16

OUTER DOWSING OFFSHORE WIND

Date: 12/02/2024
Produced By: CS
Revision: 6

open optimised environments

VP2

OUTER DOWSING OFFSHORE WIND

OS reference:	528195E 332380N	**Horizontal field of view:**	53.5° (planar projection)	**Camera:**	Canon EOS 6D	**Enlargement Factor:**	150% @A1
Eye level:	6 m AOD	**Principal distance:**	812.5 mm	**Lens:**	Canon EF 50mm f/1.4		
Direction of view:	181°	**Paper size:**	841 x 297 mm (half A1)	**Camera height:**	1.5 m		
Distance to site:	0.7 km	**Correct printed image size:**	820 x 260 mm	**Date and time:**	08/10/2022, 13:43:09		

Figure 2b - Proposed GIS Onshore Substation (GIS OnSS) Indicative Model - Khaki Green
Viewpoint 2: A16 near Marsh Lane junction
OUTER DOWSING OFFSHORE WIND

VP4

OUTER DOWSING OFFSHORE WIND

Khaki Green
RAL 100 60 20
BS 12B21

OS reference:	528743E 330263N	**Horizontal field of view:**	53.5° (planar projection)	**Camera:**	Canon EOS 6D	**Enlargement Factor: 150% @A1**	
Eye level:	9 m AOD	**Principal distance:**	812.5 mm	**Lens:**	Canon EF 50mm f/1.4		
Direction of view:	335°	**Paper size:**	841 x 297 mm (half A1)	**Camera height:**	1.5 m		
Distance to site:	1.2 km	**Correct printed image size:**	820 x 260 mm	**Date and time:**	08/10/2022, 12:42:24		

Figure 2b - Proposed GIS Onshore Substation (GIS OnSS) Indicative Model - Khaki Green
Viewpoint 4: Macmillan Way near Ship Inn
OUTER DOWSING OFFSHORE WIND

VP2

OUTER DOWSING OFFSHORE WIND

OS reference:	528195E 332380N	**Horizontal field of view:**	53.5° (planar projection)	**Camera:**	Canon EOS 6D	**Enlargement Factor:**	150% @A1
Eye level:	6 m AOD	**Principal distance:**	812.5 mm	**Lens:**	Canon EF 50mm f/1.4		
Direction of view:	181°	**Paper size:**	841 x 297 mm (half A1)	**Camera height:**	1.5 m		
Distance to site:	0.7 km	**Correct printed image size:**	820 x 260 mm	**Date and time:**	08/10/2022, 13:43:09		

Figure 2c - Proposed GIS Onshore Substation (GIS OnSS) Indicative Model - Camouflage
Viewpoint 2: A16 near Marsh Lane junction
OUTER DOWSING OFFSHORE WIND

VP4

OUTER DOWSING OFFSHORE WIND

OS reference:	528743E 330263N	**Horizontal field of view:**	53.5° (planar projection)	**Camera:**	Canon EOS 6D	**Enlargement Factor: 150% @A1**	
Eye level:	9 m AOD	**Principal distance:**	812.5 mm	**Lens:**	Canon EF 50mm f/1.4		
Direction of view:	335°	**Paper size:**	841 x 297 mm (half A1)	**Camera height:**	1.5 m		
Distance to site:	1.2 km	**Correct printed image size:**	820 x 260 mm	**Date and time:**	08/10/2022, 12:42:24		

Figure 2c - Proposed GIS Onshore Substation (GIS OnSS) Indicative Model - Camouflage
Viewpoint 4: Macmillan Way near Ship Inn
OUTER DOWSING OFFSHORE WIND

VP2

OUTER DOWSING OFFSHORE WIND

OS reference:	528195E 332380N	**Horizontal field of view:**	53.5° (planar projection)	**Camera:**	Canon EOS 6D	**Enlargement Factor:**	150% @A1
Eye level:	6 m AOD	**Principal distance:**	812.5 mm	**Lens:**	Canon EF 50mm f/1.4		
Direction of view:	181°	**Paper size:**	841 x 297 mm (half A1)	**Camera height:**	1.5 m		
Distance to site:	0.7 km	**Correct printed image size:**	820 x 260 mm	**Date and time:**	08/10/2022, 13:43:09		

Figure 2d - Proposed GIS Onshore Substation (GIS OnSS) Indicative Model - Beige Grey
Viewpoint 2: A16 near Marsh Lane junction
OUTER DOWSING OFFSHORE WIND

VP4

OUTER DOWSING OFFSHORE WIND

OS reference:	528743E 330263N	**Horizontal field of view:**	53.5° (planar projection)	**Camera:**	Canon EOS 6D	**Enlargement Factor:**	150% @A1
Eye level:	9 m AOD	**Principal distance:**	812.5 mm	**Lens:**	Canon EF 50mm f/1.4		
Direction of view:	335°	**Paper size:**	841 x 297 mm (half A1)	**Camera height:**	1.5 m		
Distance to site:	1.2 km	**Correct printed image size:**	820 x 260 mm	**Date and time:**	08/10/2022, 12:42:24		

Figure 2d - Proposed GIS Onshore Substation (GIS OnSS) Indicative Model - Beige Grey
Viewpoint 4: Macmillan Way near Ship Inn
OUTER DOWSING OFFSHORE WIND

VP2

OUTER DOWSING OFFSHORE WIND

Olive Green
RAL 100 30 20
BS 12B27

OS reference:	528195E 332380N	**Horizontal field of view:**	53.5° (planar projection)	**Camera:**	Canon EOS 6D	**Enlargement Factor: 150% @A1**	
Eye level:	6 m AOD	**Principal distance:**	812.5 mm	**Lens:**	Canon EF 50mm f/1.4		
Direction of view:	181°	**Paper size:**	841 x 297 mm (half A1)	**Camera height:**	1.5 m		
Distance to site:	0.7 km	**Correct printed image size:**	820 x 260 mm	**Date and time:**	08/10/2022, 13:43:09		

Figure 2e - Proposed GIS Onshore Substation (GIS OnSS) Indicative Model - Olive Green
Viewpoint 2: A16 near Marsh Lane junction
OUTER DOWSING OFFSHORE WIND

VP4

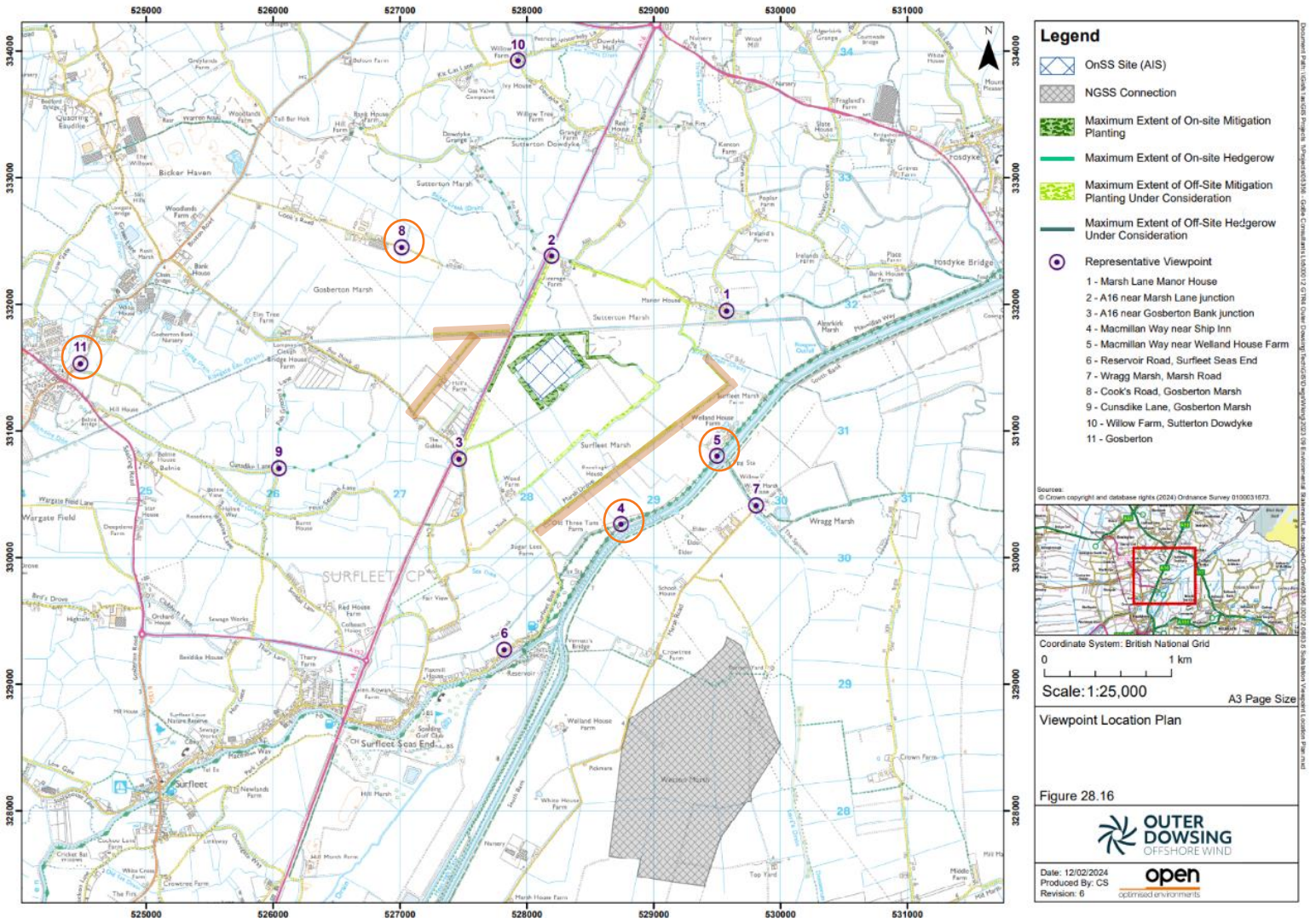
OUTER DOWSING OFFSHORE WIND

Olive Green
RAL 100 30 20
BS 12B27

OS reference:	528743E 330263N	**Horizontal field of view:**	53.5° (planar projection)	**Camera:**	Canon EOS 6D	**Enlargement Factor: 150% @A1**	
Eye level:	9 m AOD	**Principal distance:**	812.5 mm	**Lens:**	Canon EF 50mm f/1.4		
Direction of view:	335°	**Paper size:**	841 x 297 mm (half A1)	**Camera height:**	1.5 m		
Distance to site:	1.2 km	**Correct printed image size:**	820 x 260 mm	**Date and time:**	08/10/2022, 12:42:24		

Figure 2e - Proposed GIS Onshore Substation (GIS OnSS) Indicative Model - Olive Green
Viewpoint 4: Macmillan Way near Ship Inn
OUTER DOWSING OFFSHORE WIND

Discussion – proposal for refined planting scheme (AIS)



VP	Comment	Proposal
4	Closer range band of trees removed but no appreciable difference in screening effect form this viewpoint.	Area 2 -section south-west of cable crossing could potentially be removed
5	Closer range band of trees removed and screening effect reduced slightly.	Area 2 – section north-east of cable crossing suggested to be retained
8	Tree belt to south-east removed with no appreciable difference in screening effect from this viewpoint.	Area 1 could be removed
11	Tree belt to east removed with no appreciable difference in screening effect from this viewpoint.	Area 1 could be removed

Bands proposed that could be removed under an AIS scenario

VP4

ES
Planting

Refined
Planting

VP5

ES
Planting

Refined
Planting

VP8

ES
Planting

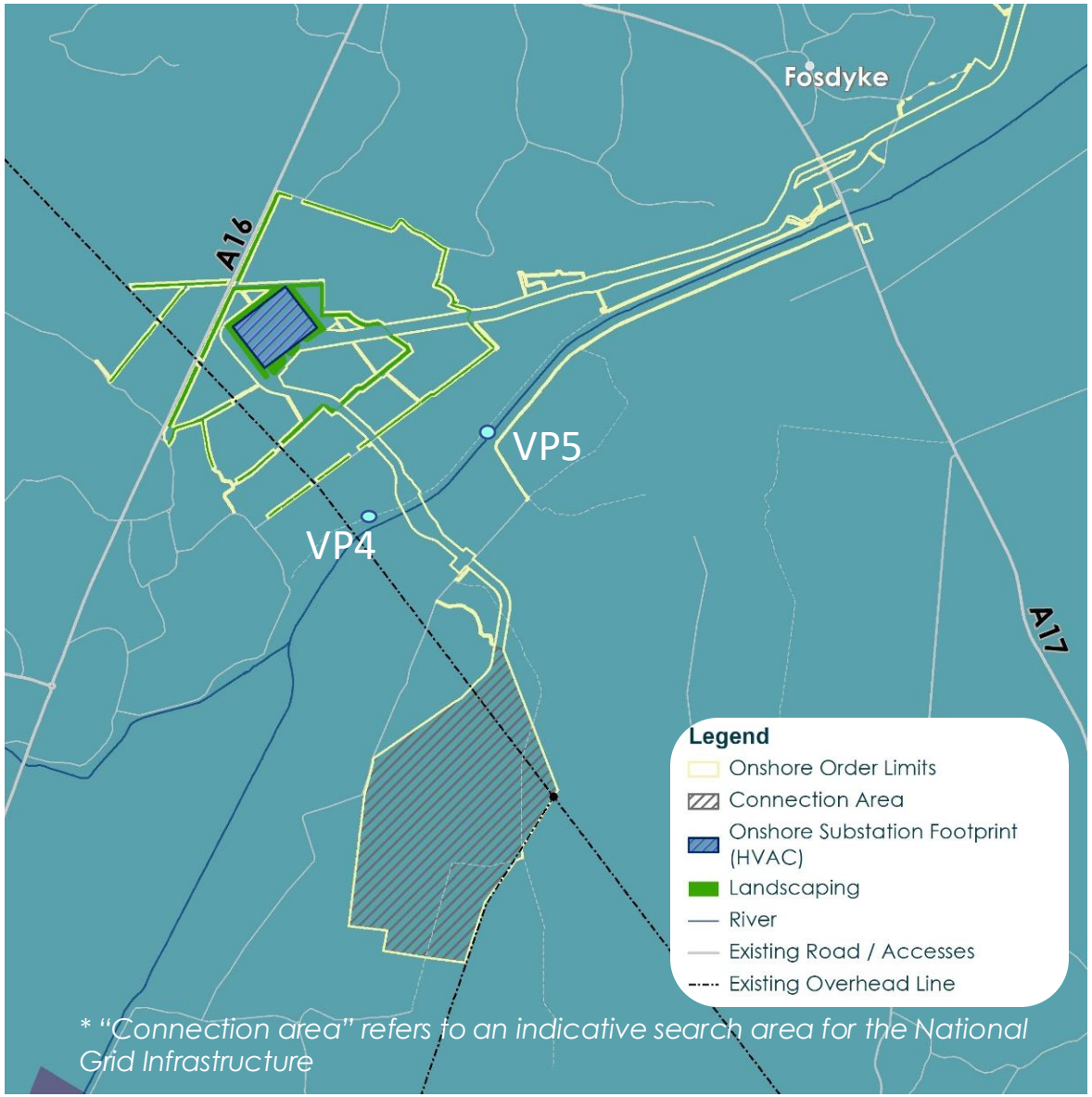
Refined
Planting

VP11

ES
Planting

Refined
Planting

Cumulative Impacts



A cumulative assessment including Visualisations (based on an indicative location within the connection area and typical parameters) has been included in the DCO application documents.

- Noting the location of the **Connection Area** *(the indicative search area for the National Grid substation)* relative to the Project substation – the planting strips will be an effective screen for those viewpoints that would be affected by both of these infrastructures.
- The cumulative Visualisations are based on both VP4 & VP5 on Macmillan Way

VP4 – Cumulative (before)

OS reference:	528743E 330263N	Horizontal field of view:	53.5° (planar projection)	Camera:	Canon EOS 6D	Enlargement Factor: 150% @A1	
Eye level:	9 m AOD	Principal distance:	812.5 mm	Lens:	Canon EF 50mm f/1.4		
Direction of view:	164°	Paper size:	841 x 297 mm (half A1)	Camera height:	1.5 m		
Distance to site:	1.7 km	Correct printed image size:	820 x 260 mm	Date and time:	08/10/2022, 12:42:24		

Figure 28-20f - Existing Baseline Photograph
Viewpoint 4: Macmillan Way near Ship Inn
OUTER DOWSING OFFSHORE WIND

VP4 – Cumulative (with NGSS envelope)

OS reference:	528743E 330263N	Horizontal field of view:	53.5° (planar projection)	Camera:	Canon EOS 6D	Enlargement Factor: 150% @A1	
Eye level:	9 m AOD	Principal distance:	812.5 mm	Lens:	Canon EF 50mm f/1.4		
Direction of view:	164°	Paper size:	841 x 297 mm (half A1)	Camera height:	1.5 m		
Distance to site:	1.7 km	Correct printed image size:	820 x 260 mm	Date and time:	08/10/2022, 12:42:24		

Figure 28-20g - Proposed National Grid Onshore Substation Location and Search Area
Viewpoint 4: Macmillan Way near Ship Inn
OUTER DOWSING OFFSHORE WIND

VP5 – Cumulative

OS reference:	529500E 330799N	Horizontal field of view:	53.5° (planar projection)	Camera:	Canon EOS 6D	Enlargement Factor: 150% @A1	
Eye level:	9.1 m AOD	Principal distance:	812.5 mm	Lens:	Canon EF 50mm f/1.4		
Direction of view:	184°	Paper size:	841 x 297 mm (half A1)	Camera height:	1.5 m		
Distance to site:	2.1 km	Correct printed image size:	820 x 260 mm	Date and time:	08/10/2022, 12:58:41		

Figure 28-21f - Existing Baseline Photograph
Viewpoint 5: Macmillan Way near Welland House Farm
OUTER DOWSING OFFSHORE WIND

VP5 – Cumulative

OS reference:	529500E 330799N	Horizontal field of view:	53.5° (planar projection)	Camera:	Canon EOS 6D	Enlargement Factor: 150% @A1	
Eye level:	9.1 m AOD	Principal distance:	812.5 mm	Lens:	Canon EF 50mm f/1.4		
Direction of view:	184°	Paper size:	841 x 297 mm (half A1)	Camera height:	1.5 m		
Distance to site:	2.1 km	Correct printed image size:	820 x 260 mm	Date and time:	08/10/2022, 12:58:41		

Figure 28-21g - Proposed National Grid Onshore Substation Location and Search Area
Viewpoint 5: Macmillan Way near Welland House Farm
OUTER DOWSING OFFSHORE WIND

Planting proposals – Increasing biodiversity, decreasing visual impacts, flood reduction and capturing carbon

Up to 130,000 trees and hedgerows would be added to the Lincolnshire landscape.

Up to 19 hectares would be planted, equivalent to 27 football fields with long term management plan.

Up to 1.6 miles of Hedgerow containing diverse species that support bats, birds and other species.





130 Biodiversity Action Plan species associated with hedges:
Lichens, fungi and reptiles.

Bank vole, harvest mouse and hedgehog all nest and feed in hedgerows alongside birds including; blue tit, yellowhammer and whitethroat.

Suggested species for planting


Quercus petraea (Sessile oak)


Alnus glutinosa (Alder)


Tilia cordata (Small leaved Lime)


Salix alba (White Willow)


Betula pubescens (Downy Birch)


Populus nigra (Black poplar)


Populus tremula (Aspen)


Acer campestre (Field maple)


Prunus padus (Bird Cherry)


Salix caprea (Goat Willow)


Salix cinerea (Sallow)


Cornus sanguinea (Dogwood)


Viburnum opulus (Guelder Rose)


Ilex aquifolium (Holly)


Sambucus nigra (Elder)

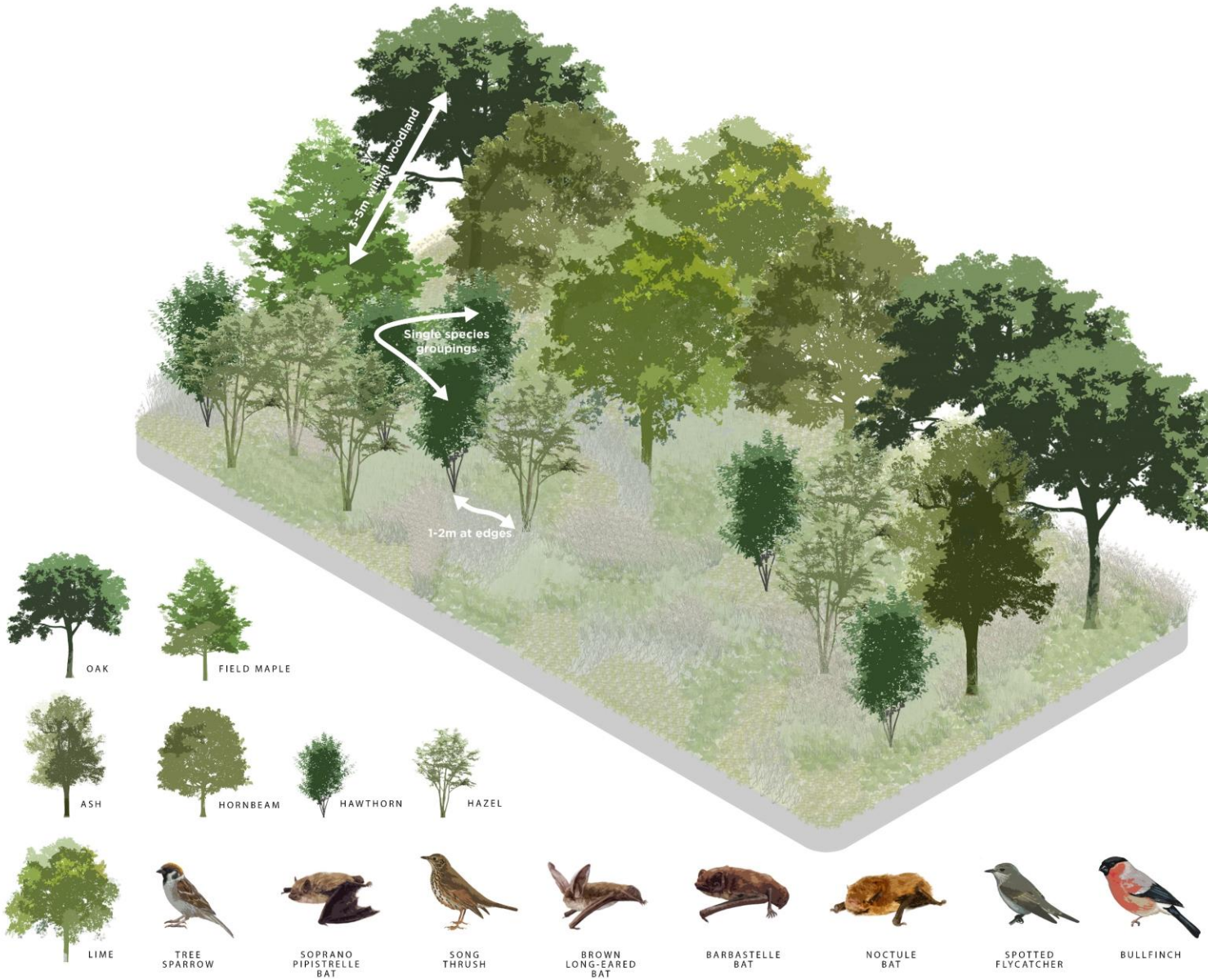

Corylus avellana (Hazel)

Hedgerows

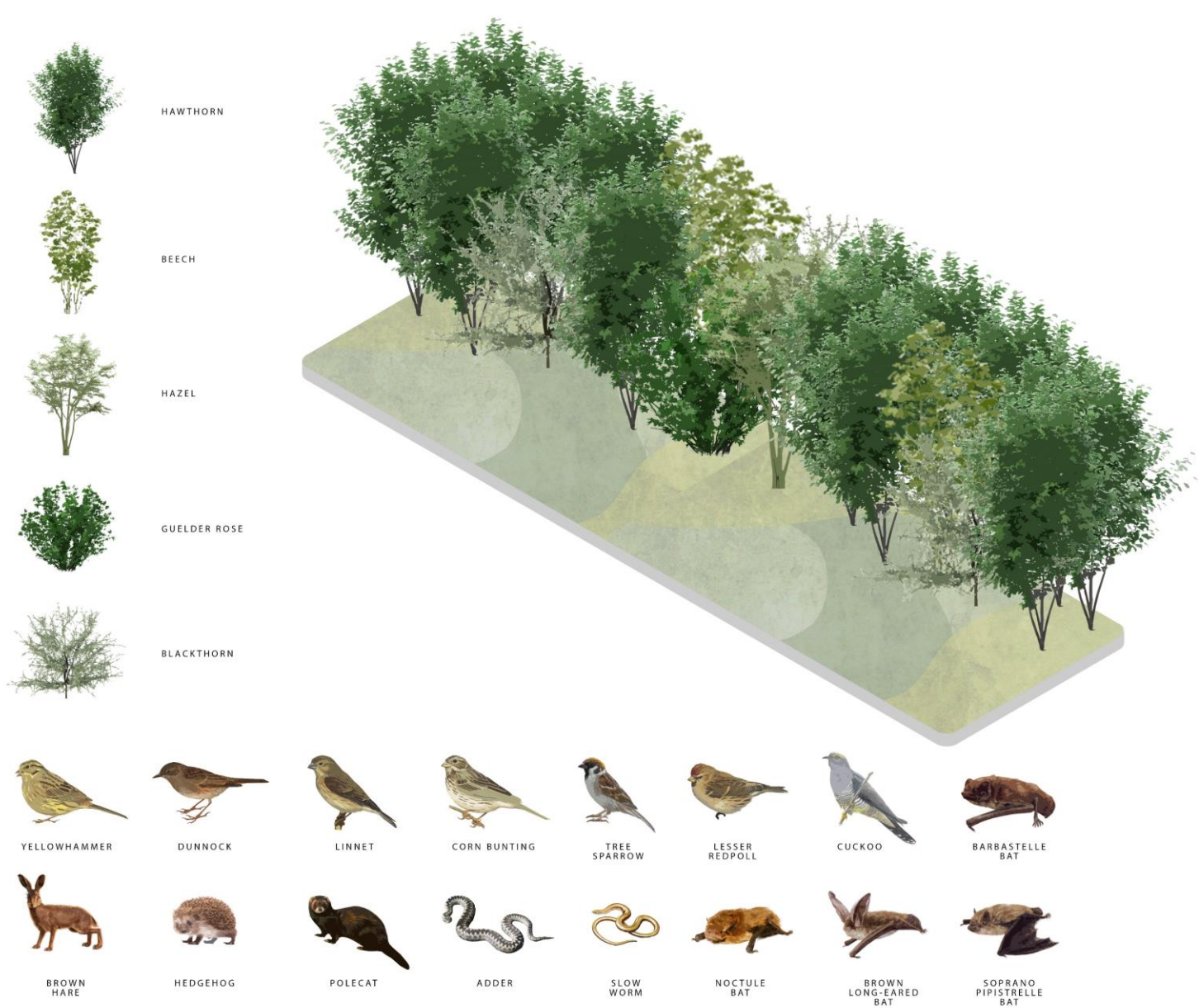
Crateagus monogyna (Hawthorn)
Acer campestre (Field maple)
Cornus sanguinea (Dogwood)
Viburnum opulus (Guelder Rose)
Ilex aquifolium (Holly)
Prunus padus (Bird Cherry)
Sambucus nigra (Elder)
Quercus petraea (Sessile oak)
Pyrus sp. (Pear)
Hippophae rhamnoides (Sea Buckthorn)
Corylus avellana (Hazel)

"We have a mixed native hedge at the rear of our garden. 10 years since planting (next March). It is in excess of 12 feet high and is cut back by about 5 feet every winter. I would expect the planting to be an effective screen before 15 years (we have hawthorn, field maple, wild privet, wild rose, blackthorn plus several other species)" ***Autumn Consultation Feedback Form***

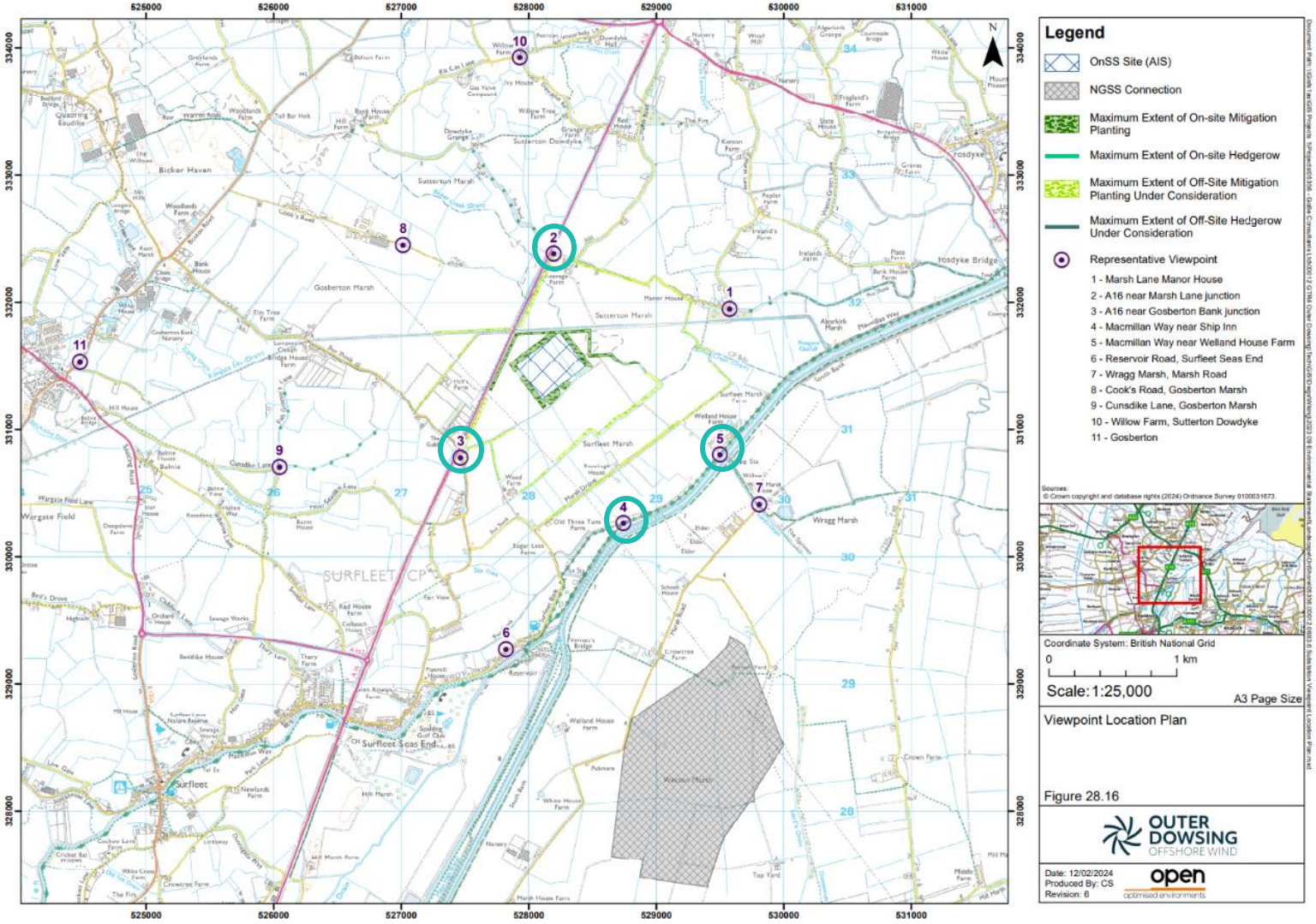
Example: LOWLAND DECIDUOUS MIXED WOODLAND



Example:


NATIVE HEDGEROW
HAWTHORN
BEECH
HAZEL
GUELDER ROSE
BLACKTHORN
YELLOWHAMMER
DUNNOCK
LINNET
CORN BUNTING
TREE SPARROW
LESSER REDPOLL
CUCKOO
BARBASTELLE BAT
BROWN HARE
HEDGEHOG
POLECAT
ADDER
SLOW WORM
NOCTULE BAT
BROWN LONG-EARED BAT
SOPRANO PIPISTRELLE BAT

DRP Site tour



External ‘Design Review Panel’ Feedback & LDP discussion

Timeline and next steps

Consultation on Landscaping proposals & proposed plant species (including updated Visualisations) through our Autumn Consultation & CLGs.

Feedback taken on board & proposals updated.

Local Design Panel (LPD1) Kick Off Meeting 31 Jan 2024

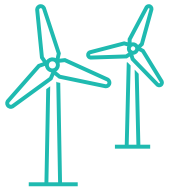
Winter Photography underway Jan/ Feb 2024

Progress Visuals based on feedback from LDP 1 Q1/Q2 2024

External Design Review 11 Jun 2024

Local Design Panel Meeting 2 (LDP2) 03 July 2024

To discuss future engagement



Autumn Consultation → Targeted Consultation → Submission of the DCO (Q1) → DCO examination H2 2024 → Consent Decision 2025 → Construction begins 2026/2027 → First power 2030

OUTER DOWSING
OFFSHORE WIND

Q&A

Minutes of Meeting.

Meeting title	Substation Community Liaison Group
Location	Tonic 44 Community Hub, Surfleet
Date/ time	Wednesday 3 July 2024 7pm – 9pm
Originator	ODOW
Attendees	Andrew Acum – ODOW – AA Roisin Alldis – ODOW – RA Sophie Brown – ODOW - SB Chris Jenner – ODOW – CJ Gemma Kitson – ODOW - GK Jon Ongley – ODOW - JO Cllr Chris Astill – Kirton Parish Council – CA Cllr David Brown – Boston Borough Council – DB Cllr James Cantwell - Boston Borough Council / Sutterton PC – JC Sam Dewar (via Teams) - Boston Borough Council – SD Kevin Gillespie (via Teams) - Lincolnshire County Council – KGi Cllr Kerry Gratton – Fosdyke Parish Council – KG Cllr Alan Mowton – Fosdyke PC / Landowner - AM Cllr Ian Pennington – Weston PC / Landowner - IP Jenny Pennington JP Andy Robbins (via Teams) – DRP – AR Cllr Elizabeth Sneath – Lincolnshire County Council / South Holland District Council - ES
Apologies	None
Purpose of meeting	1. To involve key local stakeholders in the design and development of the Outer Dowsing Offshore Wind project (landfall, onshore cable route and substation) through presentations, discussions and planned workshop activities. 2. To act as a two-way communication channel between local communities and the project team. 3. To help foster local involvement and ownership of the project.

	1.	**Chair's welcome, terms of reference and introductions** CJ opened the meeting and attendees introduced themselves. IP and JP identified themselves as having commercial interests as landowners. The group was reminded of the terms of reference. The minutes of the last meeting were already approved and posted on the website.

	2.	**Project Update** Project Timeline: The 25,000-page application has been accepted and the Planning Inspectorate (PINS) will pull issue a timetable for the hearings in August. The project anticipates a consent decision by summer 2025. Subject to a consent decision from the Secretary of State, there will be a period to discharge any conditions prior to construction starting from 2027. Construction will last approximately 3 years and it is anticipated that the project will start to generate power in 2030. DCO Examination Process: The Relevant Representation period has now closed and representations are available to view on the PINS website. A total of 95 representations were received including one from Fosdyke Parish council and one from Well Parish Meeting. A number of representations were submitted by landowners. The next stage will include a Preliminary Meeting where the examination panel will commence the 6-month Examination process. The hearings are expected to take place between October 2024 and March 2025. The full examination process will take around six months with issue-specific hearings taking place over this period. The five inspectors will inspect the application and focus on areas of interest and to reflect the representations that have been received. There will then be hearings on specialist subjects. The inspectors will then have three months to write a report recommending approval or refusal and this will be sent to the Secretary of State who then has three further months to make a decision. Landowners in the area will receive a 'Rule 8' letter from the Planning Inspectorate detailing the examination process and this may generate some queries to local councillors.

		Residents can sign up for project updates on the PINS website which will provide notification of key milestones such as when the Rule 8 letters are being sent out. CA asked if it was possible to visit the substation site. CJ said that during the examination there would be a site visit for the Inspectors and it may be possible to do something similar for other representatives. **Action: CJ to explore options for site visit for CLG members.**
	3.	**Survey Activity** Further survey work is being undertaken across the project area. This included: • Offshore geophysical surveys from July until later this year. • Onshore geophysical site investigations – in fields – these were completed in June.

- Onshore geotechnical boreholes and trial pits were completed in May. These will allow the engineers to have a better understanding of the subsurface geology for HDD and the substation work.

- Nearshore geotechnical seabed survey off the coast from Anderby Creek is due for completion by the end of July and a jack-up barge will be visible from the beach. At the closest point, it will be 500m from the shore. It is being undertaken during the summer for weather, speed and safety reasons. It will give the engineers and idea of what they will be drilling through and help them design an optimal route. Workers will be ferried in and out from Skegness Yacht Club.

- Onshore Archaeology trial trench excavation in fields along the route would take place between July-October (est.). This will involve trenches 30-50m in length at locations identified by the geophysical surveys.

AM asked how large the ORCP structure would be. CJ said it would be slightly smaller than the offshore substation platform on the Lincs wind farm. DB asked if it would be possible to land a helicopter on it. JO said there was no intention to put a helideck on it, but it would be big enough to accommodate one.

AM asked how deep the geophysical survey could penetrate and if it had found anything. CJ said that it generally detects anomalies (non-intrusive technique) 2-3m depending on the soil conditions, but it can pick up incredibly fine anomalies. Most surveys find something such as old field boundaries, ditches, buildings, etc, but it is up to the archaeologists to assess relevance. There will be around 200 trenches dug along the cable route starting at the end of July through to October this year. The county archaeologist is consulted to agree the location of the trenches. These are typically 30m long and the width of a JCB bucket. There will be comprehensive soil management procedures in place and the work will be monitored by the County archaeologist.

		IP asked what depth the trial trenches would be. CJ said that it would depend on the soil structure in the area, but generally around 1m. IP asked if there would be trenches on his land. CJ said that Dalcour MacLaren would be in touch with landowners there were any trenches planned on their land. RA said that affected landowners had already been contacted so if he hadn't heard anything, then they would not be digging on his land. JC asked if it would be possible to involve schools with the archaeology work. RA said that Jan Allen (County archaeologist) is keen on this and the team is currently discussing what could be facilitated.

	4.	**Outer Dowsing in the community** Young Engineers The ODOW team will attend the Future Fest careers event in Boston to encourage students to consider a career in offshore wind. This is in addition to a previous event at John Spendluffe College that the team attended. The team aims to continue to engage young people in the area to promote STEM skills and is exploring the possibility of purchasing learning equipment to do work with primary schools. Lincolnshire Show Outer Dowsing was proud to sponsor the show this year for the first time. As one of Lincolnshire's flagship events it was important that we were able to show support for the Lincolnshire Agricultural Society and all that they do to celebrate and support rural Lincolnshire. It also provided a good opportunity to answer questions about the project to interested parties such as landowners and primary schools. Community benefit fund The formal CBF will launch in 2027 when the project reaches financial close. Ahead of the Community Benefit Fund (CBF), the project is exploring options to support a small number of projects in line with our themes. Most projects proposed so far were more aligned with the CBF. Therefore, ahead of the CBF launch the project will likely focus on developing STEM and Nature Positive related activities such as outdoor learning with local schools, planting/bio-diversity projects and wind workshops.

	5.	**Design Review Process** Design Review Process AR said that his organisation works nationally looking at a variety of schemes. The National Planning Policy Framework encourages assessment by a Design Review Panel (DRP) which acts as a critical friend, providing advice and work alongside the development team. The panel is made up of a range of built environment professionals including architects, landscape architects, ecologists, energy professionals and town planners based all over the country. The ODOW DRP comprises AR as a town planner, plus two architects and two landscape architects. CJ said the LPAs, County Council, IDBs and the EA were also invited to take part, alongside the ODOW team. Onshore Substation IP asked if maps were available on the website. CJ said that the best place to find the maps was the PINS website and he would supply the address **Action: CJ to provide IP with PINS address - https://national-infrastructure-consenting.planninginspectorate.gov.uk/projects/EN010130** IP asked what distance would be needed for a cable to go round a bend. JO said it would need a radius of around 60-100m to make a 90^{O} turn. JC asked how the project could guarantee that the cable was buried deep enough. CJ said that all land agreements state the minimum buried depth subject to other constraints, but typically the target depth is 1.2m. IP asked if it was possible to have a meeting with DW to discuss concerns about cable depth. **Action: DW to contact IP** CJ said that it was in the Project's interest to protect its assets and the design would include ducts, protection tiles and sufficient depth to mitigate any risk. CA asked how the minimum depth would be affected by undulating land. CJ said that the minimum depth was 1.2m

		below surface level. JO said that they would maintain minimum depth even allowing for localised changes. IP said that he was double cropping and ploughing his land which was different to installing underneath grassland. CJ said that the standard depth was 0.9m but the project had committed to 1.2m minimum depth recognising the unique agricultural nature of the area. RA explained that a GIS substation is gas insulated and an AIS substation is air insulated. The visualisation shown previously were based on both options. CJ explained that the Project would seek consent for both types to give more options/greater flexibility for procurement. The landscaping designs should the worst-case scenario including both the GIS height with the AIS footprint. IP asked how many hectares the substation would require. RA said that it would be 14.5 ha for AIS and 7.3ha for GIS. Since the last meeting the team had looked at variations in colour and roof types, considering summer and winter colours in the area and cumulative visualisations. Pitched roofs more closely resemble farm buildings in the area. RA then ran through the visualisations showing different colour options and viewpoints. IP asked if they had looked at graduated colour. RA said that this would be looked at as a result of feedback. <u>Planting for the substation</u> RA said that the DCO application included the maximum extent of planting that may be required but as a result of the DRP and CLG feedback, they have also looked at reduced levels of planting that may be more in keeping with the nature of the area. The recommendation for the GIS was to maintain the level of planting due to the height, with some refinements in certain areas. From an AIS perspective, there was the possibility of removing some of the bands of planting. IP said he agreed with some screening but the proposal included 50 acres of screening around a 35-acre site. He said this would just encourage pigeons which would cause damage to crops.

		CA said there was a difference between being in a wheat belt and a vegetable belt. IP said that 17,000 acres would be required for all the projects proposed in Lincolnshire and there needed to be a balance. CJ said that the permanent land take of the Project footprint was limited to between 7-15 ha. AM asked how much land would be temporarily taken out of production from landfall to the substation. CJ said he didn't know the exact figure including temporary land but would get back to him. **Action: CJ to supply total land take figure.** CA said that Viking Link has done a good job of reinstatement and it was not possible to tell where they had been. IP said that visually it was not possible to tell, but if you were growing crops on it, it would take 10 years to recover, and gas pipelines were even worse. CJ said that underground utility installation has come a long way in the last 40-50 years in terms of soil management and reinstatement. The team has been looking very closely at what Viking Link and Triton Knoll had done to learn from them – both what they had done well and to see what the project could do better. AM said that the heat from the cables could change the microbiology of the soil. CJ said that this was something that the project was looking into. JC said there were seven projects coming through his ward. He felt that mitigation on seven projects would wipe out a lot of farming and the landscape planting could encourage vermin. <u>DRP Feedback</u> AR said that the debate was interesting and the panel appreciated being involved at an early stage where they could make a difference. Due to the early stage, the views of the panel were relatively high level. If the objective was to choose a site and then design mitigation that would hide the site, then the work done was very strong. There was a lot of good analysis of the site and local landscape character. From the site visit they could see that there are actually very few public viewpoints, and the mitigation proposals would mitigate the visual impact. However, whilst

		this would work, the panel questioned whether this was the correct approach. There was an assumption that the buildings and elements that make up the substation were inherently unattractive and should be hidden. The panel felt that a functional building does not need to be unattractive and therefore hidden. There was a strong history of things like water towers and power stations that had become powerful pieces of architecture in their own right. The panel's advice was to bring on board some architectural expertise to explore whether there may be a different way of doing it. The other way of doing it may be to create something which doesn't necessarily need to be hidden – it could be creating something striking architecturally but could also be striking in terms of landscape architecture. There was a concern that ideas based around tree belts quite close to visual receptors are not characteristic of the area which is typified by thin, broken up woodland. Existing large agricultural buildings are not hidden. Mitigation often draws attention to, rather than screen a development. The panel was not promoting an alternative idea, but to explore all options. The project could make use of other locally characteristic features such as berms and dykes. The green energy revolution is creating the need for a whole new set of structures and all involved should think about the impacts on valued traditional landscapes. The panel would like the team to take a step back from the approach of screening the substation and explore different ideas. IP said he felt this was a sensible approach and would like to meet AR if he was in the area. ES said she agreed. She said she was born in Lincolnshire and the fens are not traditionally a forested area. She said she now feels more comfortable if the project is looking at building something more attractive with less screening. She also said that she sits on Surfleet Parish Council and wondered why there were no other Surfleet councillors present. IP said that they have never attended. ES said she would follow this up. CJ confirmed invitations had been issued. KGi said that his company was involved in a lot of the Lincolnshire projects and you can't blanket the landscape with hedgerows and tress as this is not in keeping with the

		landscape. There is room for mitigation, but it needs to be placed well and he agreed that buildings don't need to be unsightly. Agricultural buildings that were not to everyone's taste when they were built can later become part of the landscape. SD said that they had involved a landscape consultant involved and looked at secondary planting so that the planting area doesn't have to be as big. IP said that trees are easy to plant. His parish council were given three trees to plant 20 years but now they were overhanging the church and it cost £3500 to remove them. CJ said that tree maintenance is covered as part of the Project ongoing commitment to maintenance. JC said that if there were fewer trees, then they would need to be strong trees due to the high winds. Even 30-year-old trees have come down in recent months. IP asked if the details about the substation. JO mentioned that generally components are earthed. AR commended ODOW on their consultation and engagement, and that it was clear to him that ODOW were trying to do the right thing. He said it felt almost apologetic to hide the substation when it is a scheme that is so exciting and will do fantastic things. CJ said that DRP feedback would feed into the examination process. The LPAs have identified visual impact as a key feature and the Inspectors will draw upon those comments to structure the hearings around these themes, so this conversation will be continued with the Inspectors. <u>Cumulative Impacts</u> RA ran through the cumulative impacts visualisations. CJ explained that the National Grid element is still fairly high level as the project doesn't have details of what their scheme will look like. GK said people on the footpath would see both the ODOW and NG projects and this was the rationale for some of the mitigation planting so that people would not be seeing a lot of energy infrastructure.

		IP said it didn't help people trying to make a living off the land when the planting was taking up farmland and encouraging wildlife just to benefit a few people walking their dogs on a Sunday afternoon. CJ said it was about finding a balance that replicated the existing character. CA asked how the project compared with a solar farm in terms of land requirements and power output. CJ said that ODOW was a 1.5GW (1500MW) project and he didn't know any solar farm with that capacity. The largest solar projects tended to be 200-300MW.
	6.	**AOB** None.
	7.	**Chair's closing remarks and next steps / next meeting** The next CLG is expected to be in the late Autumn but the ODOW team will be in touch with details nearer the date.

Meeting Protocol	
Distribute agenda before meeting	Fix responsibilities for each item
Start on time	Finish on time
Set out your ground rules	Publish minutes / actions
Stick to the agenda	Continuous improvement

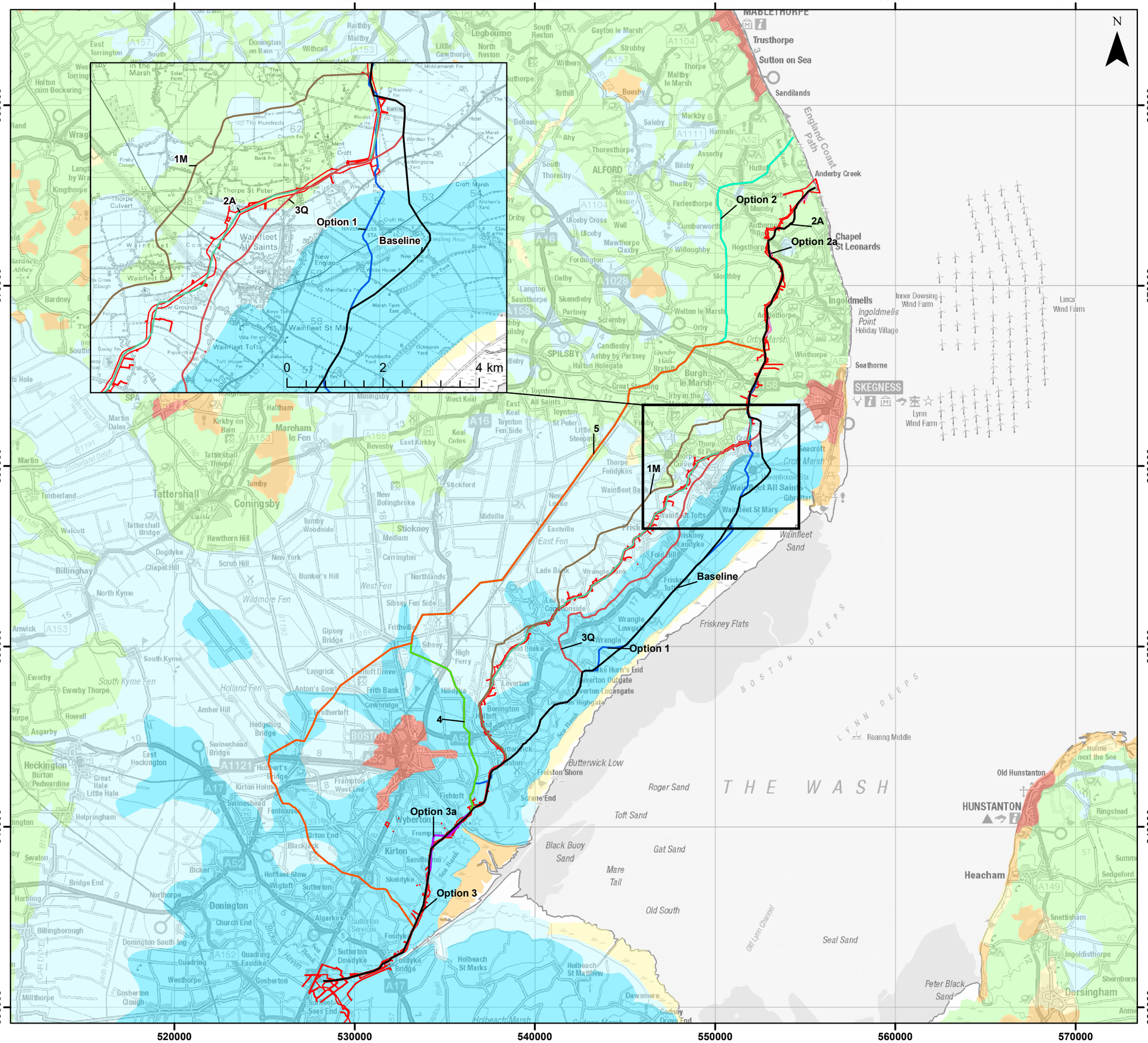
Appendix 1.11 G1 HRA 2.14 'Without Prejudice' Benthic Compensation Measures Update

The engagement through the Projects Evidence Plan Process and bilateral consultation is detailed in Technical Consultation Report (document reference 6.1.6).

'Without Prejudice' Benthic Compensation Measures Update			
Compensation Measure	**Annex I Feature**	**Summary of Applicant's position at Deadline 1.**	**Applicants update at Deadline 2.**
SAC Extension	Annex I sandbanks Annex I reef	The Applicant agreed with Natural England that, should compensation be required for the IDRBNR SAC, strategic compensation is the preferred option and is the most likely to be successful. The Applicant stated at Deadline 1 that they were continuing to have active discussions with Defra prior to, and during the Examination to further progress this option, but noted that the implementation of this measure is expected to be controlled mostly by Department for Environment, Food and Rural Affairs (DEFRA), Joint Nature Conservation Committee (JNCC) and Natural England. The Applicant understood at this point that Defra and Department for Energy Security and Net Zero (DESNZ) are intending to release a ministerial statement regarding this matter and await this to provide further confidence in the reliance on this measure. Once further information is available the Applicant would update the ExA accordingly.	The Applicant position at Deadline 2 has not changed since Deadline 1. If compensation is required for benthic features of the Inner Dowsing, Race Bank and North Ridge (IDRNR) SAC, strategic compensation is both the Applicant's and Natural England's preferred option. The Applicant understands that the Defra and DESNZ ministerial statement is to be released within weeks. Once this is received the Applicant will review the information and update the ExA accordingly. Pending further detail on this measure the below alternative measures have continued to be progressed.
Creation of Biogenic Reef	Annex I sandbanks Annex I reef	As outlined within the Without Prejudice Benthic Compensation Evidence Base and Road Map [APP-248], the Applicant considers that this proposed measure will provide benefits to ecological function of the overall MPA if delivered for either biogenic reef or sandbank feature. Whilst this would comprise a non-like-for-like measure for Annex I sandbanks, within the IDRBNR SAC, sandbanks and biogenic reef features are often co-located and provide complementary ecosystem services. As such, this measure would support the integrity of the wider National Site Network through supporting the key component communities associated with a combination of sandbank and reef habitats. The Applicant stated that they would continue to progress this option and would provide an update to the ExA accordingly.	The Applicant is in discussion with The Oyster Restoration Company (TORC) in relation to the supply of oyster spat and cultch for this measure should it be deemed necessary. The Applicant is also in conversations with a blue mussel supplier, but this option is more complex due to the availability of seed mussels. The Applicant also refers to the letter of Comfort from The Crown Estate (Document Reference 19.15) which confirms their ability to grant the rights which we would anticipate being required in respect of the construction of the biogenic reef within territorial waters, assuming the conditions set out in the letter can be met. The Applicant will continue to update the ExA accordingly with progress.
Redundant Infrastructure Removal	Annex I sandbanks	The Applicant stated that they would continue to progress this option and that it is anticipated that sandbank habitat loss within the IDRBNR SAC is compensated for by 'reinstating' or 'cleaning' an area (freeing up a previously	The Applicant has progressed conversations with telecommunication owners and has received a letter of comfort from British Telecommunications PLC (BT), the main asset owner (submitted at Deadline 2 (19.14). The purpose of this letter is to confirm that BT is

		"lost" (i.e. ecologically limited/unavailable) area) of sandbanks within the region. As set out at paragraph 225 of the Without Prejudice Benthic Compensation Evidence Base and Road Map [APP-248], initial investigations indicate that there appears to be enough redundant infrastructure intersecting with sandbank features potentially available for removal at both the 1:1 and 2:1 ratio. Surveys for infrastructure would be undertaken to confirm extent of effect from specific cables post-consent to inform this measure (if required and selected). However, the strategic delivery of a new site designation or extension is the Applicant's preferred mechanism at this stage.	supportive of the proposal to remove redundant telecommunications cable systems within designated sites that are within its ownership if this is required. This demonstrates that BT would therefore be willing to enter into an Out of Service Cable Recovery Agreement with the Project for such removal should such compensation be deemed necessary. Any such future agreement will, among other things, identify which section/s of cable are to be removed. The Applicant will continue to update the ExA as further progress is made on this measure.
Removal of Aggregate Industry Pressures	Annex I sandbanks	The Applicant stated that they would continue to progress this option. However, that the strategic delivery of a new site designation or extension is the Applicant's preferred mechanism at this stage.	The Applicant has met with aggregate licence holders and is still in conversations with licence holders. The Applicant will update the ExA as further updates are available on this measure.
Alternative Protection Methodologies	Annex I sandbanks Annex I reef	The Applicant stated that they would continue to progress this option through discussions with relevant parties. However, stated that the strategic delivery of a new site designation or extension is the Applicant's preferred mechanism at this stage.	The Applicant is continuing conversations with relevant parties, including TCE, on this measure. However, note that the strategic delivery of a new site designation or extension is the Applicant's preferred mechanism at this stage.
Marine Debris/Litter Removal, Awareness and Engagement	Annex I sandbanks Annex I reef	The Applicant stated that, if designed correctly, this measure has value and therefore will retain this compensation measure at this time. The Applicant also noted the recent success and grant of approval of this measure as a compensation for benthic features by the SoS for the Norfolk Boreas and Norfolk Vanguard Projects and the Hornsea Three OWF Project. The Applicant noted that strategic delivery of a new site designation or extension is the Applicant's preferred mechanism for the delivery of compensation at this stage.	The Applicant notes Natural England's position on this measure, however continues to review the progress of the Norfolk Boreas and Norfolk Vanguard Projects. The Norfolk Benthic Implementation Monitoring Plan (BIMP) (EN010079-004621-Norfolk Projects Benthic Implementation Monitoring Plan BIMP Version 2_Redacted.pdf (planninginspectorate.gov.uk)) the method they proposed for litter removal is partly by funding various organisations such as Ghost Fishing UK, Norfolk Beach Cleans etc. The Applicant will update the ExA as further progress is made on this measure.
Seagrass Bed Habitat Creation/Restoration	Annex I sandbanks	The Applicant will continue to progress this option. The Applicant will update the Examining Authority on the progress of this compensation option as appropriate throughout the Examination. The Applicant notes that the strategic delivery of a new site designation or extension is the Applicant's preferred mechanism for the delivery of compensation at this stage.	The Applicant did not receive further comment on the technical feasibility on this measure at Deadline 1, as stated within Natural England's recommendations to resolve issues Table 7 of Annex D in Natural England's relevant representation (RR-045). Natural England advised that this measure could only be considered as part of a package providing <10% of the required compensation and/or potential adaptive management for part delivered compensation, this compensation strategy is not a priority.

Appendix 1.14 Q1 LU 1.2 ALC Plan and Table



Legend

- Onshore Order Limits

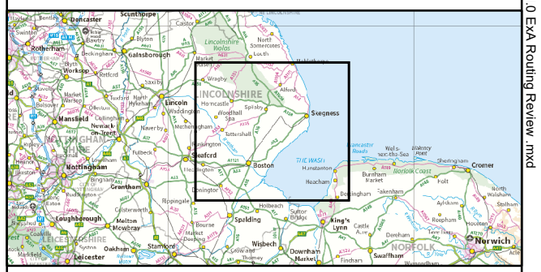
Route

- Baseline
- Option 1
- Option 2
- Option 2a
- Option 3
- Option 3a
- 1M
- 2A
- 3Q
- 4
- 5

Agricultural Land Classification (Grade)

- Grade 1
- Grade 2
- Grade 3
- Grade 4
- Grade 5
- Non Agricultural
- Urban

Sources:



Coordinate System: British National Grid

0 5 10 km

Scale: 1:200,000

A3 Page Size

Figure: 1.14 Q1 LU 1.2

Examination Deadline 2
Onshore Routing Review with ALC

OUTER DOWSING OFFSHORE WIND

Date: 15/11/2024
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Revision: 0.1

SLR

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Table 1.14 Q1 LU 1.2: Agricultural Land Classification Grades by route option, with weighted scoring.

	Ha				Weighted Score				
Route Option	Grade 1	Grade 2	Grade 3	Grand Total	Grade 1 Weighted	Grade 2 Weighted	Grade 3 Weighted	Weighted Total	Rank of Weighted
Baseline	824.05	49.64	297.15	1170.84	2472.14	99.29	297.15	2868.58	9
Option 1	843.24	43.22	304.22	1190.67	2529.72	86.44	304.22	2920.37	10
Option 2A (ODOW Selected)	480.90	386.49	327.16	1194.55	1442.71	772.97	327.16	2542.85	2
Option 3Q	742.06	154.21	319.06	1215.33	2226.19	308.42	319.06	2853.67	8
Option 1M	473.96	334.55	409.96	1218.46	1421.87	669.10	409.96	2500.93	1
Option 4	465.53	367.90	453.14	1286.57	1396.59	735.80	453.14	2585.54	3
Option 3a	473.37	367.90	459.05	1300.32	1420.10	735.80	459.05	2614.95	4
Option 3	473.37	367.90	466.68	1307.95	1420.10	735.80	466.68	2622.58	5
Option 5	463.75	476.60	453.14	1393.49	1391.25	953.19	453.14	2797.58	6
Option 2a	463.75	476.60	459.05	1399.40	1391.25	953.19	459.05	2803.49	7

Outer Dowsing Offshore Wind

Onshore Electrical Systems Technical Note

Deadline 2

Date: November 2024

Document Reference: Q1 LU 1.3

Rev: 1.0

Company:	**Outer Dowsing Offshore Wind**	Asset:	**Whole Asset**
Project:	**Whole Wind Farm**	Sub Project/Package:	Whole Asset
Document Title or Description:	Onshore Electrical Systems Technical Note		
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Rev No.	Date	Status / Reason for Issue	Author	Checked by	Reviewed by	Approved by
1.0	November 2024	Deadline 2 Written Questions	ODOW	ODOW	Shepherd & Wedderburn	ODOW

Appendix Q1 LU 1.3 to support response to Q1 LU 1.3

1 Introduction

1. This Technical Note provides technical detail in support of the Applicant's response to the ExA's first written questions (ExQ1), deadline 2, Q1 LU 1.3.

Onshore Substation (OnSS) search area and use of BMV agricultural land

Please elaborate on the implications of increasing the distance of the area of search around the National Grid T-Junction that would be necessary to avoid Grade 1 agricultural land

2. Increasing the 3.5km search area around the National Grid T-Junction has a range of implications, particularly due to resultant increases in cable length and the impacts of such increases. This applies to both the 275kV export cable from landfall to the Onshore Substation (OnSS) and the 400kV transmission cable from the OnSS to the connection point at the National Grid Substation (NGSS). These impacts include:
   - Exceeding 400kV cable norms within the UK. Long 400kV cables are not typically used in the industry for OFTO systems.
   - Increased ECC route infrastructure length.
   - Increased ECC route cable installation length.
   - Increase in amount and size of critical equipment at the OnSS.
   - The need for additional equipment (reactors) in the NGSS.
   - A shorter section of 400kV cable will enable more efficient cable system design.
   - Increased risk of impact on system reliability, notably outages/blackouts.
3. This Technical Note explains the significant impact on the viability, feasibility and reliability of the cable solution that would be created by increasing the search area around the National Grid T-Junction.
4. This Technical Note is structured as follows:
   - Section 2 – Electrical Systems Study
   - Section 3 – OFTO considerations
   - Section 4 – Onshore Electrical System Technical Considerations
   - Section 5 – Conclusion

2 Electrical System Study

5. The location for the OnSS has been carefully selected within Surfleet, which is located within a search area with a radius of 3.5km from the NGET (National Grid Electricity Transmission) transmission 'T' junction (the Project's Connection Point). The OnSS site's specific location, off Surfleet Bank near the A16 junction, lies approximately 13km southwest of Boston.[1]
6. The ECC route and OnSS location selection included a study on the electrical systems, the results of which are contained in this Technical Note, including the influence this has on the 3.5km search area. The purpose of the study was as follows:
    - Electrical system: to analyse how the location of the OnSS would affect the electrical system's design, including in respect of cost, technical feasibility, functionality and risk.
    - Cables: to analyse how the location of the OnSS would impact on the sourcing, selection, and installation of cables that safely transmit the current to the substation, having regard to the need for as few installations run as practicable to ensure long-term operations with lower risks of faults.
    - Civil infrastructure works: to analyse the optimum location for the OnSS to minimise its effect on the environment, minimise proximity to receptors such as dwellings, keep the route as short as practicable to reduce detrimental impacts and risks and work to the electrical and cable requirements.
7. The study found that a crucial factor affecting the viability of the electrical system was the length of the onshore ECC and the negative effect of major obstacle crossings such as the River Haven and River Welland. It concluded that extending the cable length beyond 64km would result in a significant non-linear CAPEX increase, a variety of technical challenges, and an increase in associated risks to the electrical system (due to unknowns). This would also impact electrical equipment functionality at the OnSS and OSS (Offshore Substation). These considerations would also affect the project and the maintenance of the ECC route in the operational phases.
8. These matters are further described in subsequent sections of this Technical Note.

[1] Grid coordinates X = 528149.252 and Y = 331472.181.

3 OFTO Considerations

9. The selection of the location for the OnSS is undertaken in the context of the need to have regard to Offshore Transmission Owner (OFTO) regulatory regime. Once the works are completed and commissioned, most assets within the OnSS, including 275kV export cable and 400kV transmission cables, will be transferred to the OFTO as part of the legally mandated asset transfer process, which is overseen by Ofgem. Route optimisation must consider the economic and operational requirements over the whole lifecycle of the infrastructure to protect consumers from unnecessary costs.
10. The Project is required to:
    - Develop an "economic and efficient" development under the guidelines[2] as published by Ofgem and the rules that govern OFTO transmission projects. This reflects the statutory duties in section 9 of the Electricity Act 1989 "to develop and maintain an efficient, co-ordinated and economical system of electricity transmission" (section 9(1)(b)), which are imposed on electricity transmission licence holders.
11. These criteria are critical for designing and optimising the electrical transmission infrastructure, including the OnSS and Export Cable.

[2] https://www.ofgem.gov.uk/energy-policy-and-regulation/policy-and-regulatory-programmes/offshore-electricity-transmission-ofto

4 Onshore Electrical System Technical Considerations

4.1 400kV Cable

12. Increasing the distance between the OnSS and the NGET T-junction point increases the cable length of the 400kV interconnecting cables. This adds complexity to the power system, increases the risk to the system from dynamic system events (temporary disturbances to the transmission system that take time to stabilise and can trigger outages, if not effectively managed), and adds main electrical equipment infrastructure. In particular:

    - Compared to 275kV cables, 400kV cable systems can increase reactive power requirements and negatively impact power quality through greater amplification of unwanted distortion in the electrical waveform that can interfere with how smoothly electricity flows in a system.
    - Extending the length of the 400kV underground cable will increase the likelihood of reactive compensation and create a need for deployment within the planned NGET substation of devices that clean up unwanted distortions in the electrical waveform, to keep power flowing smoothly and efficiently, which would not otherwise be required.
    - Shorter cable systems can use more efficient design solutions which result in smaller cables and lower losses.
    - According to the International Council on Large Electric Systems (CIGRE), the statistical failure rate for 400kV underground cables is significantly higher than that of 275kV cables[3].
    - Based on information published by the National Energy System Operator (NESO) in its annual Electricity Ten-Year Statement[4], thirteen separate OFTO systems use 400kV interconnection cables, with twenty-five individual cable circuits in total. Like the proposed solution for the ODOW Project, all these cables interconnect between OFTO substations and onshore transmission owner substations (e.g. NGET substations). Across these installed systems, the longest cable route length is 2.01km, and the average is 0.56km.

13. Accordingly, a 3.5km search area is already significantly in excess of normal industry practice and precedent. A longer 400kV cable route that goes beyond the 3.5km search area around the NGET T-Junction would be even further outside of normal industry practice and precedent, and it would increase the risk associated with the system design and its implementation.

[3] CIGRE, Technical Brochure 815, September 2020

[4] National Electrical System Operator, Electricity Ten Year Statement 2023, Appendix B, Table B-2-1d 18 Mar 2024

4.2 275kV Cable

4.2.1 Limitations on the length of cable system

14. A 64km maximum cable route length between the Transition Joint Bay (TJB) and OnSS was found to keep the system within an acceptable design envelope. The current cable length in the range of 62-64km, allows for a minor element of detailed design flexibility for the cables to deviate along the ECC route (HDD depths, avoid obstacles) and allow for termination at the OnSS, which will be addressed in detailed engineering. This limit is driven by:
    - Substantial step changes in CAPEX (e.g. going beyond 64 km may lead to greater mitigation required (reactive compensation) than below the 64 km.)
    - Power system losses (in longer export cables, the electricity encounters more resistance as it travels, causing more energy to be lost as heat.).
    - Risk of system fault. Increasing the length (and number of cables) and hence the number of cable joints on the route would increase the risk of joint failure. High-voltage cables are typically manufactured in lengths of ~500 meters to 1 km. This limitation is due to the weight and size of the cable reels, as well as the ease of transport and handling. There are many causes cable joints failures, and each of these failures are serious as it disrupts the power supply, damages equipment, requires costly and lengthy repairs. The longer the cable route, the more cable joints and risks of failure.
    - Supply chain limitations. A length greater than the 64km threshold would involve a requirement for an increased cable cross-section. This could create a restriction due to the cable sizes available in the market.
    - The amount of infrastructure required, e.g. additional electrical pathway and additional and larger critical equipment to the OnSS, which arise in respect of a longer route length (see also Paragraph 18).
15. These issues significantly increase the technical risks associated with the transmission system design, along with its feasibility and cost.
16. The 57km Triton Knoll onshore cable route was the longest in Europe at the time of installation[5]. That further supports the robustness of the 64km limit.
17. The additional infrastructure which would be required for a longer route also has adverse environmental and other implications, including further land-take, and additional development in areas of flood risk and impact on agricultural land.

[5] https://www.rwe.com/-/media/RWE/documents/07-presse/rwe-renewables/2021/2021-10-07-rwe-successfully-completes-onshore-construction-works-for-triton-knoll-offshore-wind-farm.pdf

4.2.2 Transmission System operational risks

18. Increasing the length of the cable route results in technical challenges that extend beyond the ODOW system and can result in further step changes in overall CAPEX, required infrastructure and the transmission system operational risk profile. Longer cables risk giving rise to issues with wider transmission system power quality, switching and dynamic instability. This can lead to damage to transmission system components, unsafe working conditions for grid maintenance personnel and potentially to local system blackouts. These risks stem from several technical issues, including:
    - fault ride-through (this concerns the ability of electrical generators to stay connected to a power network during short periods of lower voltage);
    - harmonic resonance (amplification of unwanted distortion in the electrical waveform that can interfere with how smoothly electricity flows in a system);
    - transient over-voltages (local system voltages can exceed design values of equipment for short periods, resulting in damage);
    - transient recovery voltages (local system voltages can take longer to recover);
    - zero miss phenomena (system fault currents that last longer because they are difficult to interrupt with traditional circuit breakers).
19. Outages and blackouts are compelling practical evidence of the technical issues in the bullet points above, and hence must be mitigated during design as the implications are severe. There are several historical examples of these issues impacting on the safe operation of the transmission system, including events at Hornsea One Offshore Wind Farm. In this case, engineering solutions and additional infrastructure were needed to maintain the stability and reliability of the transmission system.

4.2.3 Infrastructure works: ECC route

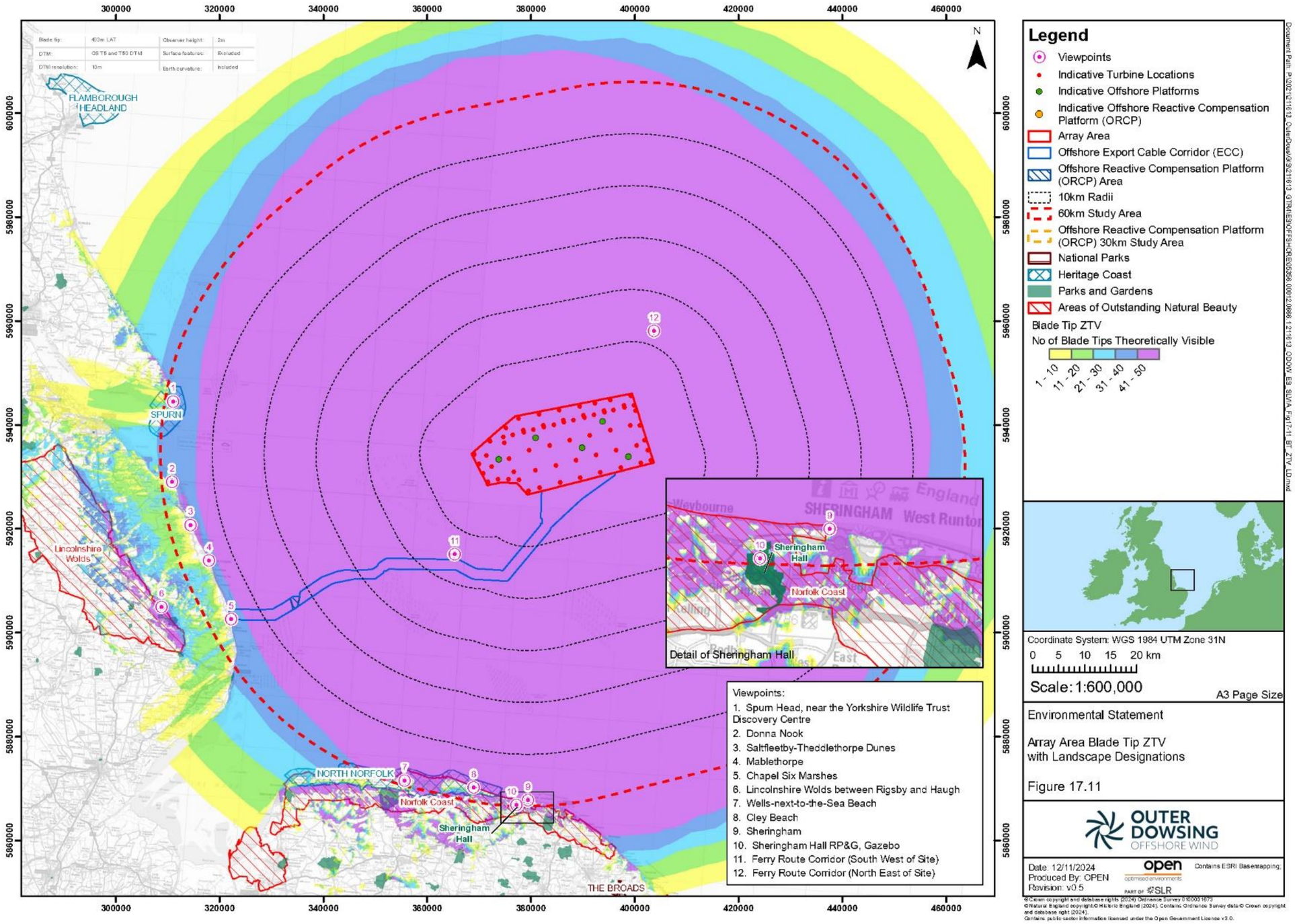
20. The most practicable direct route identified from landfall to the OnSS is 60km (Horizontal length). Even at this length, the ODOW route would be the longest onshore buried HVAC cable route anywhere in the UK or Europe.
21. The cable's length within the infrastructure is greater than the horizontal length, at between ~62-64 km subject to detailed engineering. This allows the bends along the route to accommodate trenchless construction such as HDDs (horizontal directional drills) and localised deviation with the ECC to avoid existing features or obstacles.
22. In determining the optimal route for the onshore ECC, a comprehensive assessment considered the civil infrastructure and the impact on the electrical system across the onshore route. This evaluation highlighted that the chosen pathway operates to the limit of the electrical system design, as explained above.
23. The route includes key obstacles, notably the crossings under the Steeping and Haven rivers. It avoids the obstacle of crossing the Welland river with the 275KV cable, which would significantly impact the electrical system.

24. Situating the OnSS north of the Welland river was necessary for two reasons.
25. Firstly, it ensures the length of the primary 275kV export cable meets the electrical system requirements, thereby reducing its installation's associated risks and complexities.
26. Secondly, this positioning avoids the civil engineering challenges inherent in crossing the Welland river with the export 275kV cable, particularly by avoiding a crossing downstream east of the Fosdyke bridge/yacht harbour. This location is environmentally sensitive and critical for flood protection, and due to its proximity to a tidal estuary, the river is more exposed to tidal movements. The river crossing at this point would require multiple Trenchless Crossings (TCs) utilising Horizontal Directional Drills (HDDs) in a location subject to routine heavy tidal influences and with various environmental sensitivities in the immediate area. In contrast, choosing to cross the river with the 400kV cable at a location 4.3km upstream is remote to Fosdyke and reduces the number of HDD crossings. This mitigates substantial obstacles that impact the electrical system, streamlining the project's implementation while minimising the environmental footprint and enhancing the overall system resilience.

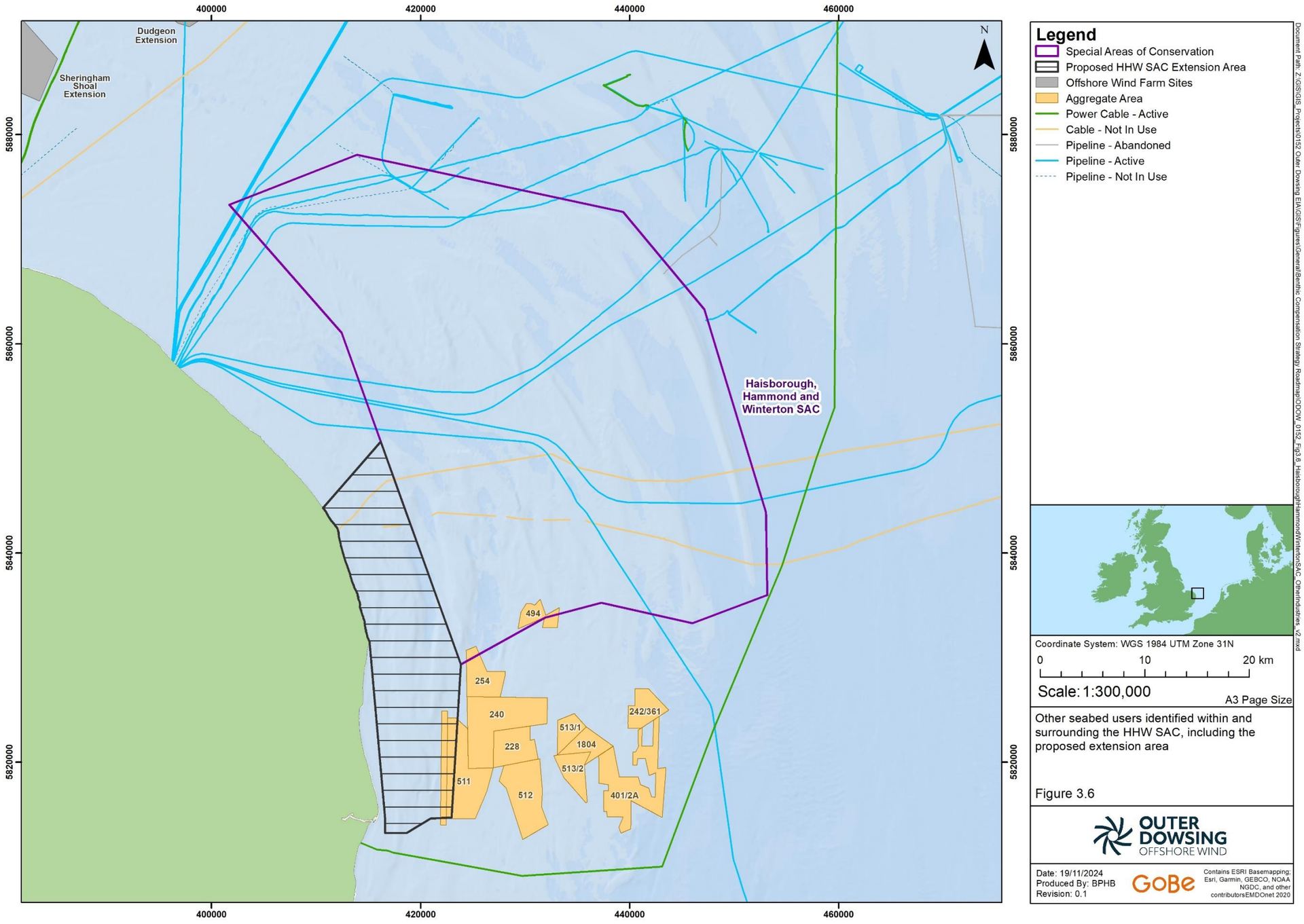
5 Conclusion

27. This Technical Note has explained why it would not be reasonable or appropriate to increase the 3.5km search area around the National Grid T-Junction, due to viability, feasibility and reliability considerations. This arises due to constraints concerning both the 400kV transmission cable and the 275kV export cable.
28. As to the 400kV cable, the 3.5km search area for the OnSS around the National Grid T-Junction is already significantly in excess of normal industry practice and precedent. A longer 400kV cable route that goes beyond the 3.5km search area would be even further outside of normal industry practice and precedent, and it would increase the risk associated with the system design and its implementation.
29. As to the 275kV cable between the landfall location and the OnSS, the ODOW route would be currently the longest onshore buried HVAC cable route anywhere in the UK or Europe. A 64km cable route length threshold exists based on multiple technical and practical constraints. This limits any search area which would result in an increase in 275kV length beyond this threshold.

Appendix 1.21 Q1 SV 1.11 Updated version of Figure 17.11



Appendix 1.19 Q1 OG 1.3 Other Offshore Infrastructure Figure



Legend

- Special Areas of Conservation
- Proposed HHW SAC Extension Area
- Offshore Wind Farm Sites
- Aggregate Area
- Power Cable - Active
- Cable - Not In Use
- Pipeline - Abandoned
- Pipeline - Active
- Pipeline - Not In Use

Coordinate System: WGS 1984 UTM Zone 31N

0 10 20 km

Scale: 1:300,000

A3 Page Size

Other seabed users identified within and surrounding the HHW SAC, including the proposed extension area

Figure 3.6

OUTER DOWSING OFFSHORE WIND

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